



DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

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

CEQA Referral

Initial Study and Notice of Intent to Adopt a Negative Declaration

Date: November 14, 2018

To: Distribution List (See Attachment A)

From: Planning and Community Development

Subject: USE PERMIT APPLICATION NO. PLN2018-0043 – COUCO CREEK DAIRY, INC.

Comment Period: November 14, 2018 – December 17, 2018

Respond By: December 17, 2018

Public Hearing Date: Not yet scheduled. A separate notice will be sent to you when a hearing is scheduled.

You may have previously received an Early Consultation Notice regarding this project, and your comments, if provided, were incorporated into the Initial Study. Based on all comments received, Stanislaus County anticipates adopting a Negative Declaration for this project. This referral provides notice of a 30-day comment period during which Responsible and Trustee Agencies and other interested parties may provide comments to this Department regarding our proposal to adopt the Negative Declaration.

All applicable project documents are available for review at: Stanislaus County Department of Planning and Community Development, 1010 10th Street, Suite 3400, Modesto, CA 95354. Please provide any additional comments to the above address or call us at (209) 525-6330 if you have any questions. Thank you.

Applicant: Tony Machado

Project Location: 3303 S. Washington Road, on the southwest corner of W. Harding and S. Washington Roads, in the Turlock area

APN: 044-039-001 & -002; 044-040-041 & -042; 057-015-034

Williamson Act Contract: 76-2290 & 2002-4491

General Plan: Agriculture

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

Project Description: Request to expand an existing dairy facility, operating on five parcels (75±, 232±, 62±, 10±, and 42± acres in size) in the A-2-40 zoning district. There are five assessor parcels included in this request; however, the central dairy operation is located on APN 044-040-041. The existing dairy is currently permitted through the Central Valley Regional Water Quality Control Board and Use Permit No. 2014-0028 to house a maximum of 3,050 milk cows and 437 dry cows, 250 small heifers (4-6 month calves), and 250 medium heifers (7-14 month calves). This project is a request to modify the approved heifer support stock numbers to 500 small heifers, and 1,000 medium heifers, and add 750 large heifers

(15-24 month bred heifers). Mature cow numbers are to remain the same at 3,050 milk cows and 437 dry cows. This request includes construction of three freestall shade barns, totaling 176,550 square feet, over existing corral footprints located due south of the southwest corner of West Harding and South Washington Roads. The estimated wastewater storage needs will be accommodated by the existing capacity of the on-site lagoons.

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

Attachments:

- Attachment A – Distribution List
- Attachment B -- Initial Study
- Attachment C -- Maps
- Attachment D – Waste Management Plan
- Attachment E – Nutrient Management Plan
- Attachment F – CalEEMod Report
- Attachment G – Authority to Construct Permit Application
- Attachment H – RWQCB WMP/NMP Review
- Attachment I – Early Consultation Referral Responses
- Attachment J – 2014 Use Permit Initial Study Checklist
- Attachment K – 2014 Use Permit Conditions of Approval

USE PERMIT APPLICATION NO. PLN2018-0043 – COUCO CREEK DAIRY, INC.

Attachment A

Distribution List

X	CA DEPT OF CONSERVATION Land Resources		STAN CO ALUC
X	CA DEPT OF FISH & WILDLIFE		STAN CO ANIMAL SERVICES
	CA DEPT OF FORESTRY (CAL FIRE)	X	STAN CO BUILDING PERMITS DIVISION
	CA DEPT OF TRANSPORTATION DIST 10	X	STAN CO CEO
X	CA OPR STATE CLEARINGHOUSE		STAN CO CSA
X	CA RWQCB CENTRAL VALLEY REGION	X	STAN CO DER
	CA STATE LANDS COMMISSION	X	STAN CO ERC
	CEMETERY DISTRICT	X	STAN CO FARM BUREAU
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: TURLOCK	X	STAN CO SUPERVISOR DIST 2: CHIESA
	HOSPITAL DIST:	X	STAN COUNTY COUNSEL
X	IRRIGATION DIST: TURLOCK		StanCOG
X	MOSQUITO DIST: TURLOCK	X	STANISLAUS FIRE PREVENTION BUREAU
X	MOUNTIAN VALLEY EMERGENCY MEDICAL SERVICES	X	STANISLAUS LAFCO
	MUNICIPAL ADVISORY COUNCIL:		STATE OF CA SWRBC – DIV OF DRINKING WATER DIST. 10
X	PACIFIC GAS & ELECTRIC		SURROUNDING LAND OWNERS
	POSTMASTER:	X	TELEPHONE COMPANY: AT&T
X	RAILROAD: UNION PACIFIC		TRIBAL CONTACTS (CA Government Code §65352.3)
X	SAN JOAQUIN VALLEY APCD		TUOLUMNE RIVER TRUST
X	SCHOOL DIST 1: TURLOCK		US ARMY CORPS OF ENGINEERS
X	SCHOOL DIST 2: CHATOM	X	US FISH & WILDLIFE
	STAN ALLIANCE	X	US MILITARY (SB 1462) (7 agencies)
X	STAN CO AG COMMISSIONER	X	USDA NRCS
			WATER DIST:

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**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. PLN2018-0043 – COUCO CREEK DAIRY, INC.

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

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

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

- 1.
- 2.
- 3.
- 4.

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

- 1.
- 2.
- 3.
- 4.

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

Response prepared by:

Name Title Date


DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

 1010 10TH Street, Suite 3400, Modesto, CA 95354

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CEQA INITIAL STUDY

Adapted from CEQA Guidelines APPENDIX G Environmental Checklist Form, Final Text, December 30, 2009

1. **Project title:** Use Permit Application No. PLN2018-0043 – Couco Creek Dairy, Inc.
2. **Lead agency name and address:** Stanislaus County
1010 10th Street, Suite 3400
Modesto, CA 95354
3. **Contact person and phone number:** Kristen Anaya, Assistant Planner
(209) 525-6330
4. **Project location:** 3303 South Washington Road, on the southwest corner of West Harding Road and South Washington Road, in the Turlock area. (APNs: 044-039-001 & 002; 044-040-041 & 042; 057-015-034).
5. **Project sponsor's name and address:** Tony Machado
3303 South Washington Road
Turlock, CA 95380
6. **General Plan designation:** Agriculture
7. **Zoning:** A-2-40 (General Agriculture)
8. **Description of project:**

Request to expand an existing dairy facility, operating on five parcels (75±, 232±, 62±, 10±, and 42± acres in size), currently permitted through the Central Valley Regional Water Quality Control Board and Use Permit No. 2014-0028 to house a maximum of 3,050 milk cows and 437 dry cows, 250 small heifers (4-6 month calves), and 250 medium heifers (7-14 month calves). This project is a request to modify the approved heifer support stock numbers to 500 small heifers, and 1,000 medium heifers, and add 750 large heifers (15-24 month bred heifers). Mature cow numbers are to remain the same at 3,050 milk cows and 437 dry cows. Ultimately, the total number of animals is to increase by 1,750. Consequently, additional waste will be generated. The dairy's existing Waste Management Plan (WMP) and Nutrient Management Plan (NMP) were revised to account for the increase in waste and resulting storage and disposal needs associated with the increase in the herd size. The updated WMP estimates that daily manure production will be approximately 68,159.59 gallons and 9,111.61 cubic feet of manure per year (pre-separation). The estimated wastewater storage needs will be accommodated by the existing capacity of the on-site lagoons.

The existing dairy operation contains all the necessary corrals, feed storage, waste containment, and utilities. The proposed increase in herd size will not require any modifications to the existing milking facility as it is currently underutilized. The dairy facility is proposing to add 250 small heifers, 750 medium heifers, and 750 large heifers. Due to the increase in animal units, this application includes a request for construction of three roof-only freestall shade barns, totaling 176,550 square feet, over existing corral footprints located due south of the southwest corner of West Harding and South Washington Roads. Staff has contacted the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the Regional Water Quality Control Board (RWQCB), who have confirmed that the proposed numbers are below CEQA significant impact thresholds and that the project requires individual Waste Discharge Requirements (WDRs) (See e-mail dated June 13, 2018, from Arnaud Marjollet of SJVAPCD and e-mail dated October 4, 2018, and phone call from October 8, 2018, from Girma Getachew of RWQCB).

There are five Assessor parcels included in this request; however, only APN 044-040-041 houses the dairy facility. The remaining four APNs consist of 340 acres of cropland and ponds. According to the NMP for this expansion, the dairy anticipates importing 16,675.31 pounds of nitrogen, 1,401.37 pounds of phosphorous, utilizing all the wastewater generated at the site, and exporting all the solid manure. In the revised NMP, the field-by-field nitrogen applied-to-removed ratio ranges from 1.18 to 1.66. The whole farm nitrogen balance ratio was 1.39. Furthermore, the WMP was prepared to evaluate the impact of expansion on the required lagoon capacity. In the WMP, the storage capacities were calculated using 2 feet of freeboard and 2 feet of dead storage loss for the storage lagoons. The existing and required storage capacities were calculated to be 33.2 and 24.4 million gallons respectively. Consequently, the current design and capacity of the existing lagoons is adequate. RWQCB staff have determined that the revised NMP and WMP are in accordance with the standards outlined in the General Order and that thorough implementation of these plans will minimize the impacts of animal waste on surface and groundwater quality. Furthermore, the SJVAPCD has determined that, based on the information provided to the district, project specific emissions criteria pollutants are not expected to exceed District significance thresholds of 10 tons/year NOX, 10 tons/year ROG, and 15 tons/year PM10; therefore, the District concludes that project specific criteria pollutant emissions would have no significant adverse impact on air quality.

- 9. Surrounding land uses and setting:** Cropland and rural residences to the east; unrelated dairy facilities, cropland, and rural residences to the west; a feedlot, P-D (81) – Chemurgic Agricultural Chemicals, cropland, and rural residences to the north; and cropland and rural residences to the south
- 10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):** Central Valley Regional Water Quality Control Board, Stanislaus County, Department of Public Works, Environmental Resources, Turlock Irrigation District, San Joaquin Valley Air Pollution Control District

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology / Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature on file.

Prepared by _____

November 14, 2018

Date _____

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration.

Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

- a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). References to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
 - 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
 - 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
 - 9) The explanation of each issue should identify:
 - a) the significant criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

ISSUES

I. AESTHETICS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Discussion: Any development resulting from this project will be consistent with existing area developments. The site itself is not considered to be a scenic resource or a unique scenic vista. The site is currently developed with existing dairy facilities/structures. The existing structures are comprised of metal, which is a material consistent with accessory structures in and around the A-2 (General Agriculture) zoning district. Standard conditions of approval will be added to this project to address glare from any previously installed or any proposed supplemental on-site lighting.

Mitigation: None

References: Stanislaus County General Plan and Support Documentation¹.

II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X	
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Discussion: The project site is comprised of five parcels of 75 acres, 232 acres, 62.29 acres, 10.0 acres, and 42.95 acres in the A-2-40 (General Agriculture) zoning district, four of which are enrolled in Williamson Act Contracts No. 1976-2290, & 2002-4491. Surrounding uses include unrelated dairies to the west; Planned Development (P-D [81]) - Chemurgic Agricultural Chemicals and orchards to the north; and various agricultural uses, farm houses, and outbuildings to the north, west, east, and south. The County has a Right-to-Farm Ordinance in place to protect agricultural operations from unjust nuisance complaints.

The California Department of Conservation’s Farmland Mapping and Monitoring Program lists the project site’s soil as comprised of Confined Animal Agriculture, Prime Farmland, and Farmland of Statewide Importance. According to the United States Department of Agricultural Soil Survey, the soils consist of Dinuba sandy loam, 0 to 1 percent slopes (DrA); Dinuba sandy loam, slightly saline-alkali, 0 to 1 percent slopes (DwA); and Hilmar loamy sand, 0 to 1 percent slopes (HfA). The parcels receive irrigated water from Turlock Irrigation District (TID) and will continue to meet the criteria of Confined Animal Agriculture, Prime Farmland, and Farmland of Statewide Importance if the use permit is approved.

The project site currently consists of five wastewater lagoons, freestall shade structures with flush lanes, barns and animal pens, rural residential structures, row crops, and spreading lanes. The area of construction is to take place on APN 044-040-041, within the existing dairy facility footprint. The project proposes to increase the number of permitted cows from 3,050 milk cows and 437 dry cows, 250 small heifers (4-6 mo. calves), and 250 medium heifers (7-14 mo. calves) to 500 small heifers, and 1,000 medium heifers, and an added 750 large heifers (15-24 mo. bred heifers). Mature cow numbers are to remain the same at 3,050 milk cows and 437 dry cows. The request includes the construction of three roof-only freestall shade structures for support stock totaling 176,550 square feet. The site is served by private well and private septic services. The attached WMP and NMP provide details on managing the expanded herd size. The feed is stored on APN 044-040-41. The nutrients provided by the herd will be utilized to fertilize approximately 314 farmable acres of irrigated cropland owned by the applicant.

The proposed use is permitted “by right” in Stanislaus County; however, the Regional Water Quality Control Board (RWQCB) has determined that new Individual Waste Discharge Requirements (WDRs) are required, which requires CEQA compliance. RWQCB has reviewed the applicant’s WMP and NMP and has stated that the plans are sufficient.

If approved, the project will not conflict with any agricultural activities in the area and/or lands enrolled in the Williamson Act, as the parcels will continue to be used for agricultural purposes. The project was referred to the Department of Conservation, but a response has not been received to date.

Mitigation: None

References: USDA Natural Resource Conservation Service Web Soil Survey; USDA Soil Conservation Service Soil Survey of Eastern Stanislaus Area CA; California Farmland Mapping and Monitoring Program Data; the Stanislaus County Zoning Ordinance; Stanislaus County General Plan and Support Documentation¹.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

Discussion: The project site is within the San Joaquin Valley Air Basin, which has been classified as "severe nonattainment" for ozone and respirable particulate matter (PM-10) as defined by the Federal Clean Air Act. The San Joaquin Valley Air Pollution Control District (SJVAPCD) has been established by the State in an effort to control and minimize air pollution. As such, the District maintains permit authority over stationary sources of pollutants.

The project was referred to, reviewed by, and commented on by the SJVAPCD. The District provided the following comments in a letter dated June 13, 2018:

- a. The District is currently designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM10 and CO, and nonattainment for PM2.5 for the federal air quality standards. At the state level, the District is designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 air quality standards.
- b. Based on information provided to the District, project specific emissions of criteria pollutants are not expected to exceed District significance thresholds of 10 tons/year, NOX, 10 ton/year ROG, and 15 tons/year PM10. Therefore, the District concludes that project specific criteria pollutant emissions would have no significant adverse impact on air quality.

The proposed construction will require an Authority to Construct (ATC) Permit and may be subject to the following District Rules: Regulation VIII (Fugitive PM-10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), Rule 4641 (Cutback, Slow Cure, & Emulsified Asphalt, Paving & Maintenance Operations), 4550 (Conservation Management Practices), and 4507 (Confined Animal Facilities). In the event an existing building will be renovated, partially demolished, or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). All of the District's comments have been added to the project as conditions of approval.

Mitigation: None

References: Referral response from the San Joaquin Valley Air Pollution Control District dated June 13, 2018; Stanislaus County General Plan and Support Documentation¹

IV. BIOLOGICAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Discussion: The project is located within the Hatch Quad (3712048) based on the U.S. Geographical Survey topographic quadrangle map series. According to aerial imagery and application materials, there is active flood-irrigated agriculture on the project site and on adjacent parcels in all directions. Based on results from the California Natural Diversity Database (CNDDDB), some special-status species are known to occur within the Hatch Quad; however, the proposed project will be located on a site that has already been developed and permitted to operate as a confined animal facility. The project was referred to the California Department of Fish and Wildlife (formerly the Department of Fish and Game) and the United States Department of Fish and Game and no response has been received to date.

The project will not conflict with the Habitat Conservation Plan, a Natural Community Conservation Plan, or other locally approved conservation plans. Impacts to endangered species or habitats, locally designated species, or wildlife dispersal or mitigation corridors are considered less than significant.

Under the Clean Water Act, Concentrated Animal Feeding Operations (CAFOs) are defined as point source dischargers. The revised National Pollutant Discharge Elimination System (NPDES) CAFO regulation requires all CAFOs to apply for, and comply with, the conditions in an NPDES permit. The NPDES regulation describes which operations qualify as CAFOs and sets forth the basic requirements that will be included in all CAFOs' permits. A condition of approval will be added to the project requiring the applicant to comply with the revised NPDES regulation, if applicable.

Mitigation: None

References: California Department of Fish and Wildlife's Natural Diversity Database Quad Species List; U.S. Geographical Survey Topographic Quadrangle Map Series; Stanislaus County General Plan and Support Documentation¹

V. CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			X	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?			X	

Discussion: It does not appear that this project will result in significant impacts to any archaeological or cultural resources. The project site is already developed, and construction related to the project proposal will occur over the existing footprint of the current dairy operation. The applicant is proposing to construct a roof-only freestall shade structure over the existing corrals located due south of the southwest corner of Harding and Washington Roads. Minor ground disturbance will occur during the construction of footings to support the freestall barns. Consequently, a standard condition of approval will be added to the project to address any discovery of cultural resources during any ground disturbing activities. The project was referred to the Native American Heritage Commission (NAHC) via the State Clearinghouse; however, no response has been received to date.

Mitigation: None

References: Stanislaus County General Plan and Support Documentation¹

VI. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			X	

Discussion: The United States Department of Agriculture Natural Resources Conservation Service’s Eastern Stanislaus County Soil Survey indicates that the soils on the project site comprise Dinuba sandy loam, 0 to 1 percent slopes (DrA); Dinuba sandy loam, slightly saline-alkali, 0 to 1 percent slopes (DwA); and Hilmar loamy sand, 0 to 1 percent slopes (HfA).

As contained in Chapter 5 of the General Plan Support Documentation, the areas of the County subject to significant geologic hazard are located in the Diablo Range, west of Interstate 5; however, as per the California Building Code, all of Stanislaus County is located within a geologic hazard zone (Seismic Design Category D, E, or F), and a soils test may be required at the time of applying for a building permit. Results from the soils test will determine if unstable or expansive soils are present. If such soils are present, special engineering of the structure will be required to compensate for the soil deficiency. Any structures resulting from this project will be designed and built according to building standards appropriate to withstand shaking for the area in which they are constructed. An early consultation referral response received from the Department of Public Works indicated that a grading, drainage, and erosion/sediment control plan for the project will be required, subject to Public Works review and Standards and Specifications. Likewise, any addition of a septic tank or alternative waste water disposal system would require the approval of the Department of Environmental Resources (DER) through the building permit process, which also takes soil type into consideration within the specific design requirements.

The project site is not located near an active fault or within a high earthquake zone. Landslides are not likely due to the flat terrain of the area.

DER, Public Works, and the Building Permits Division staff review and approve any building or grading permit to ensure their standards are met. Conditions of approval regarding these standards will be applied to the project, and will be triggered when a building permit is requested.

Mitigation: None

References: Referral response from Stanislaus County Department of Public Works dated September 4, 2018; Stanislaus County General Plan and Support Documentation¹

VII. GREENHOUSE GAS EMISSIONS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Discussion: The principal Greenhouse Gases (GHGs) are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H₂O). CO₂ is the reference gas for climate change because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e). In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] No. 32), which requires the California Air Resources Board (ARB) design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

At this time, there is no adopted methodology or Best Management Practices for reducing greenhouse gas emissions for a dairy operation either locally or through SJVAPCD. However, on September 22, 2009, the United States Environmental Protection Agency (EPA) administrator signed the Final Mandatory Reporting of Greenhouse Gas Rule to require large emitters and suppliers of GHGs to begin collecting data starting January 1, 2010, under a new reporting system. The minimum average annual animal population for dairies to emit 25,000 metric tons of GHG or more per year is 3,200 dairy cows; however, the USDA Agricultural Research Service’s Northwest Irrigation and Soils research laboratory in Kimberly, Idaho, conducted a study on a 10,000 milking cow facility and found that emissions thresholds for 25,000 metric tons of annual carbon dioxide equivalent is actually 4,808 mature cows, based on the dairy it monitored. Based on the USDA findings, each cow would produce 5.2 metric tons of annual carbon dioxide equivalent. Couco Creek Dairy currently is permitted by the RWQCB to have up to 3,487 mature milk cows (3,050 milking and 437 dry). The current expansion request would keep mature milk cow numbers the same. This project request will increase the support stock numbers by 1,750 and therefore will add an annual amount of carbon dioxide to the region but Planning staff believes it will be less than significant as the increase will generate less than 25,000 metric tons of annual carbon dioxide equivalent. This project was referred to, reviewed by, and commented on by the San Joaquin Valley Air Pollution Control District (SJVAPCD). Conditions related to their comments have been added to the project.

Should Best Management Practices for the reduction of Greenhouse Gases from dairy operations be adopted either locally or by SJVAPCD, the Couco Creek Dairy will be required to meet those standards, as required by condition of approval for this project. With conditions of approval in place, the project’s impact to greenhouse gas emissions is considered to be less than significant.

Mitigation: None

References: Stanislaus County General Plan and Support Documentation¹

VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Discussion: Hazardous materials potentially used on site include: pipeline cleaning soap; acid cleaner; iodine; teat dip; refrigerant (R22) (used in the milk barn); formaldehyde and copper sulfate (used in cow foot baths); diesel fuel and gasoline (in tanks); motor oil hydraulic fluid; brake fluid; and antifreeze (for farm vehicle maintenance). Pesticide exposure is a risk in agricultural areas. Sources of exposure include contaminated groundwater, which is consumed, and drift from spray applications. Application of sprays is strictly controlled by the Agricultural Commissioner and can only be accomplished after first obtaining the applicable permits. The Stanislaus County Department of Environmental Resources (DER) is responsible for overseeing hazardous materials in this area. The project was referred to the DER Hazardous Materials (HazMat) Division, and conditions of approval related to their comments have been added to the project. No significant impacts associated with hazards or hazardous materials are anticipated to occur, as a result of the proposed project.

The Envirostar database was accessed to determine if any of the properties were listed as potential hazardous waste or superfund sites. None of the properties included in this application were identified on this list; however, the parcel located at the northeast corner of West Harding and Faith Home Roads was identified as an inactive site requiring further evaluation. According to the Envirostar database, the Chemurgic Corporation constructed a facility to fulfill a contract with the Chemical Warfare Service of the Army for M-69 (Incendiary Oil) bomb loading and storage. The contract was terminated in 1945. Thereafter, according to County records, the property was rezoned to P-D (81) by the Chemurgic Ag Chemicals, Inc. to allow a feed manufacturing operation and similar agricultural-commercial uses. The Chemurgic Ag Chemicals, Inc. site is located across from the dairy site's lagoons (on APN 044-039-001) and further separated by West Harding Road and the Turlock Irrigation District's 60 foot wide Lateral No. 5.

Mitigation: None

References: Department of Toxic Substances Control (www.envirostar.dtsc.ca.gov); Rezone 82-04 – Chemurgic Agricultural Chemicals; Stanislaus County General Plan and Support Documentation¹

IX. HYDROLOGY AND WATER QUALITY -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

Discussion: Run-off is not considered an issue because of several factors which limit the potential impact. These factors include a relative flat terrain of the subject site and relatively low rainfall intensities. Areas subject to flooding have been identified in accordance with the Federal Emergency Management Act (FEMA). The project site is located in FEMA Flood Zone X, which includes areas determined to be outside the 0.2% annual chance floodplains. As such, flooding is not considered to be an issue with respect to this project. Flood zone requirements will be addressed by the Building Permits Division during the building permit application process. The Stanislaus County Department of Public Works has reviewed the project and is requiring a grading, drainage, and erosion/sediment control plan as a part of the building permit for the roof-only structure. Consequently, run-off associated with the construction of the new structure will be reviewed as part of the overall building permit review process. No septic systems or additional wells are being proposed as a part of this project.

The WMP and NMP were reviewed by RWQCB staff to determine if the amount of wastewater generated, utilized to wash down the facility, and applied to crops was in accordance with the standards outlined in the General Order and whether new individual WDRs are needed. The purpose of review of these plans and compliance with the General Order is to ensure that approved plans are designed and implemented to ensure that the impact of animal waste on surface and groundwater quality is minimized and poses a less than significant impact on water quality. According to the WMP, the facility water usage will remain at 64,992 gallons per day. The existing and required lagoon storage capacities were calculated to be 33.2 and 24.4 million gallons, respectively. RWQCB staff have determined that the aforementioned plans are compliant with the General Order and that the existing lagoons are adequately sized to handle any additional waste resulting from the

reorganization. Consequently, the potential for impacts to ground and surface water, water quality, and polluted run-off were determined to be less than significant.

Mitigation: None

References: Referral response from the Stanislaus County Department of Public Works dated September 4, 2018; Review of Nutrient and Waste Management Plans for Couco Creek Dairy by Regional Water Quality Control Board dated October 4, 2018; Stanislaus County General Plan and Support Documentation¹

X. LAND USE AND PLANNING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Discussion: The project site is designated Agriculture and zoned A-2-40 (General Agriculture). The project site currently houses a total of 3,987 head as permitted in the agricultural zone; however, the RWQCB has determined that the proposed project is subject to CEQA and, therefore, requires that the applicants obtain a Use Permit in accordance with §21.20.030(F) of the Stanislaus County Zoning Ordinance. CEQA is required in instances where a dairy will be required to obtain Individual WDRs as part of an expansion. This project will not conflict with any applicable habitat conservation plan or natural community conservation plan and will not physically divide an established community.

Mitigation: None

References: Stanislaus County General Plan and Support Documentation¹

XI. MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Discussion: The location of all commercially viable mineral resources in Stanislaus County has been mapped by the State Division of Mines and Geology in Special Report 173. There are no known significant resources on the site.

Mitigation: None

References: Stanislaus County General Plan and Support Documentation¹

XII. NOISE -- Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Discussion: Noise impacts associated with on-site activities and traffic are not anticipated to exceed the normally acceptable level of noise. The project will increase ambient noise levels. Permanent increases may result as the number of animal units is increased on site; however, noise associated with animals in the Agricultural zone is permissible. There will be a temporary increase in noise due to the construction of the freestall barn roof; however, a condition of approval will be added limiting the hours of construction so as to lessen noise impacts to neighbors. The nearest sensitive noise receptors are homes on neighboring properties. The nearest dwellings are located within 300 feet of the existing dairy facility footprint. The dwelling to the north is accessory to an existing confined animal facility operation. The dwelling to the south of Couco Creek Dairy is a nine-acre homesite.

Mitigation: None

References: Stanislaus County General Plan and Support Documentation¹

XIII. POPULATION AND HOUSING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Discussion: The proposed use of the site will not create significant service extensions or new infrastructure which could be considered as growth inducing. No housing or persons will be displaced by this project. The project site is adjacent to large scale agricultural operations, and the nature of the use is considered consistent with the A-2 zoning district.

Mitigation: None

References: Stanislaus County General Plan and Support Documentation¹

XIV. PUBLIC SERVICES --	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Would the project result in the substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

Discussion: The County has adopted Public Facilities Fees, as well as a Fire Facility Fee on behalf of the appropriate fire district, to address impacts to public services. Such fees are required to be paid at the time of building permit issuance. This project was circulated to all applicable school, fire, police, irrigation, and public works departments and districts during the early consultation referral period, and no concerns were identified with regards to public services. The Turlock Irrigation District (TID) responded by identifying an irrigation pipeline belonging to Improvement District 711 running east to west along the north edge of the proposed freestall shade barns and requested review and approval of all project maps and plans. If it is determined that irrigation facilities will be impacted, TID is requesting that the applicant shall provide irrigation improvement plans and enter into an Irrigation Improvements Agreement for the required irrigation facility modifications. These comments will be reflected in the project’s conditions of approval.

Mitigation: None

References: Stanislaus County General Plan and Support Documentation¹

XV. RECREATION --	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion: This project is not anticipated to increase significant demands for recreational facilities as such impacts typically are associated with residential development.

Mitigation: None

References: Stanislaus County General Plan and Support Documentation¹

XVI. TRANSPORTATION/TRAFFIC -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

Discussion: Significant impacts to traffic and transportation were not identified by reviewing agencies. According to the application, a maximum shift is comprised of eight employees, as it is currently; consequently, employee trips will not increase. The number of daily customers/visitors on site at peak time will remain at two. Furthermore, the applicant estimates that there will be one truck delivery/loading per day, eight hours a day decreasing by four. This decrease is accounted for as heifers will now be housed on-site eliminating the need to transfer these animals from the dairy to feedlots and then returning them when they were ready to calve. On-site veterinarian visits, trash service, and deliveries of fuel, seed, and dairy-related chemicals will continue to occur once a week. Commodity truck trips will increase from six or seven per day to eight; milk truck trips will continue to be five or six, daily. Truck trips, associated with the exportation of manure, will increase from 1,070 per year to 1,320 trips per year. The existing facility has direct access onto South Commons and South Washington Roads, which are County maintained. The access onto the project site is large enough to offer emergency access, and the size of the parcel is large enough to offer adequate on-site parking opportunities.

The project was referred to the Stanislaus County Department of Public Works which has requested conditions of approval to address driveway approaches, restrictions on loading, parking, and unloading within the County right-of-way, the need for an irrevocable offer of dedication, and a grading, drainage, and sediment management plan.

Mitigation: None

References: Referral response dated September 4, 2018, from Public Works; Application materials; Stanislaus County General Plan and Support Documentation¹

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Discussion: The project was referred to TID, DER, ERC, and RWQCB. DER did not respond; however, referral responses were received from the ERC and TID. TID is the irrigation and electric service provider for this project site. TID submitted non-CEQA comments regarding the need to map and protect existing irrigation facilities, as well as District approval of any improvements, prior to building permit issuance and/or ground disturbance. A referral response from the Department of Public Works requires that they review and approve a grading and drainage plan prior to issuance of any building permit. Conditions of approval shall be added to the project to reflect this requirement. On-site septic and well infrastructure will be reviewed by DER for adequacy through the building permit process.

The project site is improved with on-site wells which provide drinking and milk room wash water for the facility. Flush lanes, utilized in freestall barns, are washed out with lagoon water. Solid waste (manure) is separated from liquid waste. Liquid waste is stored in lagoons along with wash water. The WMP for this project indicates that the lagoon has sufficient carrying capacity for the increased liquid waste resulting from the proposed expansion. Wastewater will be applied to 304 acres of cropland. Application of wastewater is strictly monitored by the RWQCB to ensure that wastewater does not impact the quality of surface water and groundwater. As a result, dairies are required to submit a NMP and WMP to ensure the optimal level of lagoon water is used on crop land without it causing impacts to water resources.

Mitigation: None

References: Referral response from the Department of Public Works dated September 4, 2018; Referral response from Turlock Irrigation District dated June 4, 2018; Application materials; Stanislaus County General Plan and Support Documentation¹

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE --	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion: Review of this project has not indicated any features which might significantly impact the environmental quality of the site and/or the surrounding area. The RWQCB reviews all dairies for this region. No indications were given by RWQCB that the project would have a cumulative impact or substantial adverse effects on human beings, either directly or indirectly.

¹Stanislaus County General Plan and Support Documentation adopted in August 23, 2016, as amended. **Housing Element** adopted on April 5, 2016.

COUCO CREEK DAIRY, INC. UP PLN2018-0043 AREA MAP

ATTACHMENT C

N SANTA FE AVE

S CARPENTER RD

CROWS LANDING RD

TURLOCK

WEST MAIN ST

99

165

SAN JOAQUIN RIVER

Site

COUNTY BOUNDARY


MERCED COUNTY

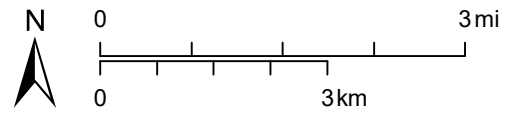
LEGEND

 Couco Creek Inc. Site

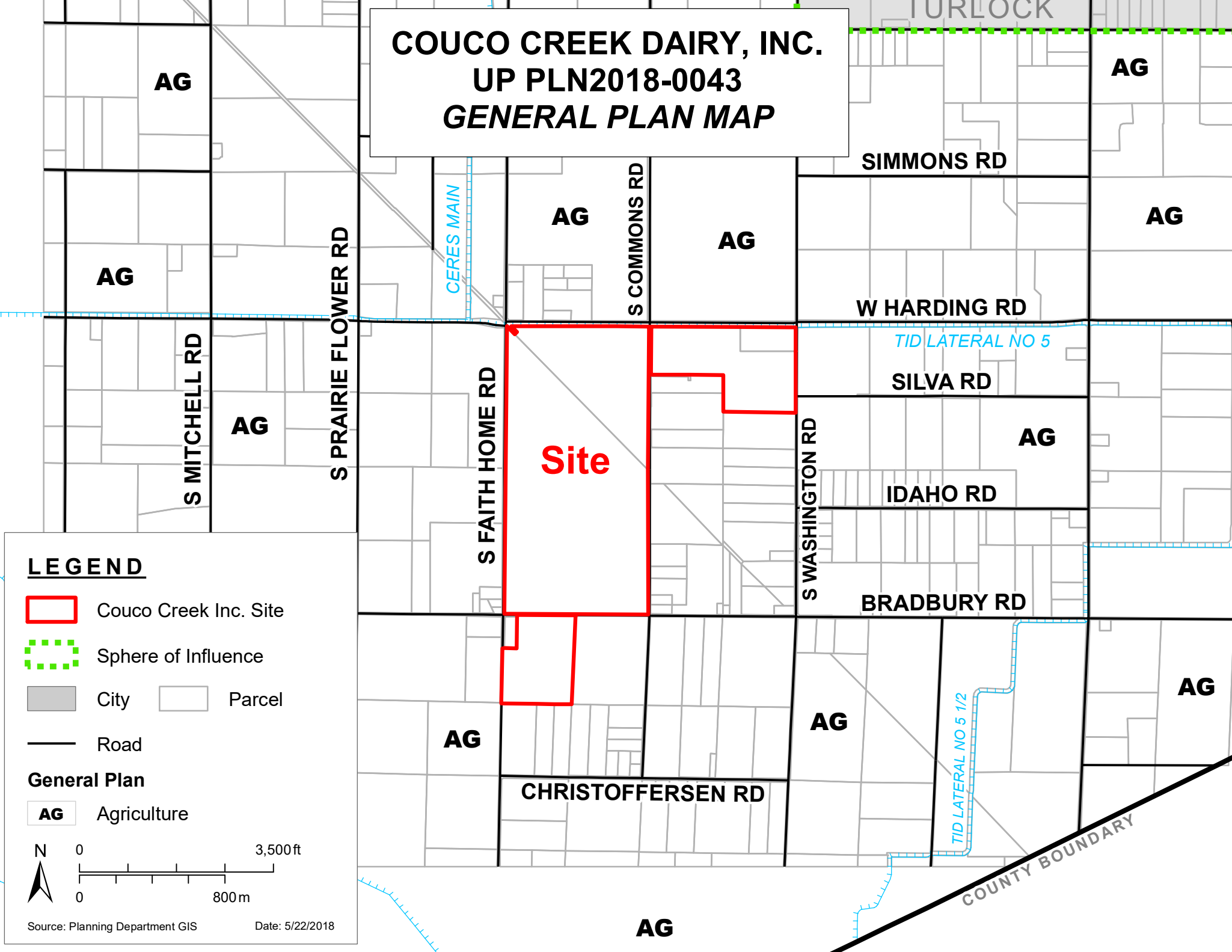
 Sphere of Influence

 City  River


 Road



**COUCO CREEK DAIRY, INC.
UP PLN2018-0043
GENERAL PLAN MAP**



LEGEND

 Couco Creek Inc. Site

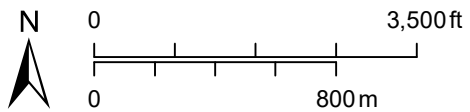
 Sphere of Influence

 City  Parcel

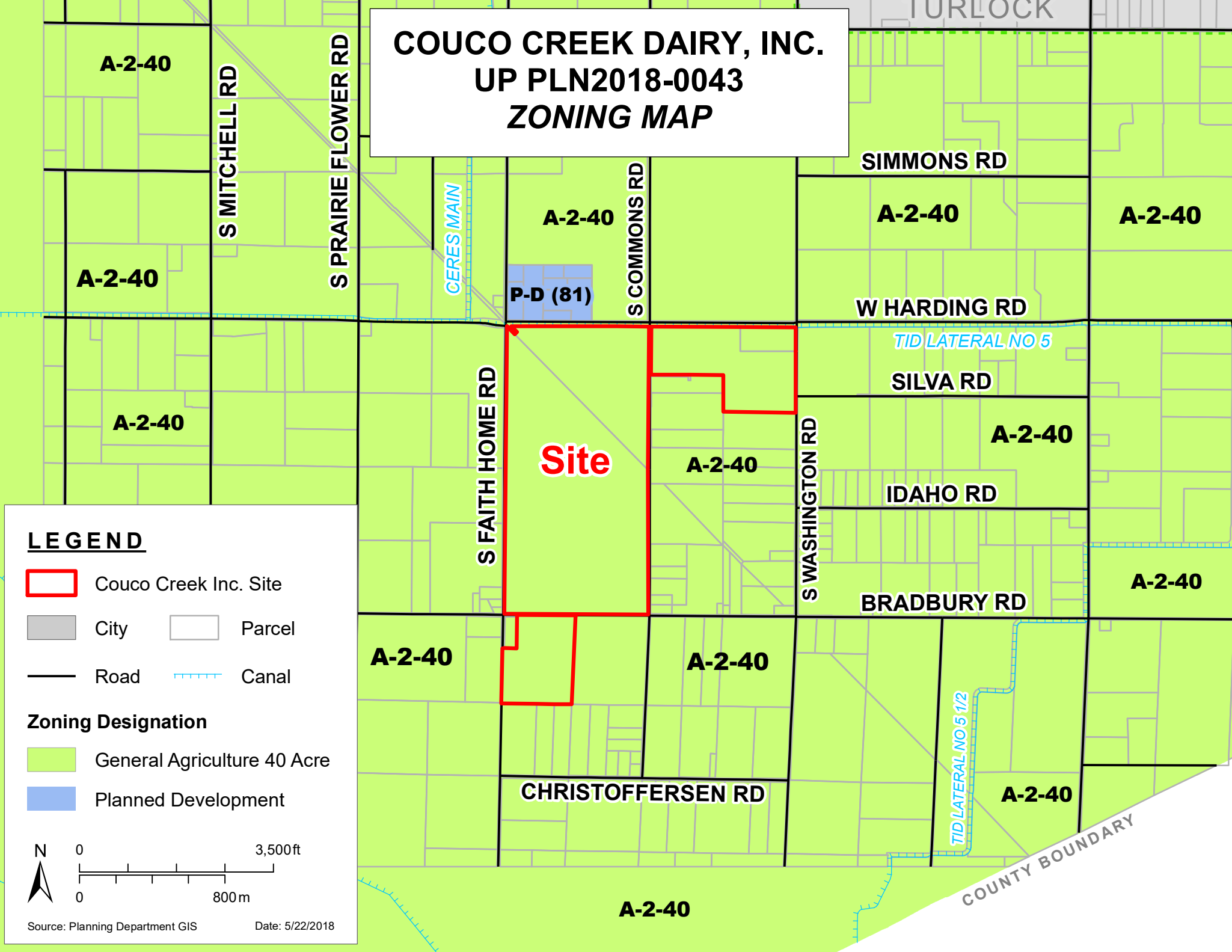
 Road

General Plan

 Agriculture



COUCO CREEK DAIRY, INC. UP PLN2018-0043 ZONING MAP

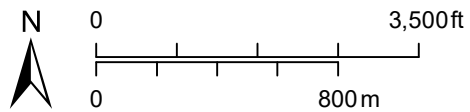


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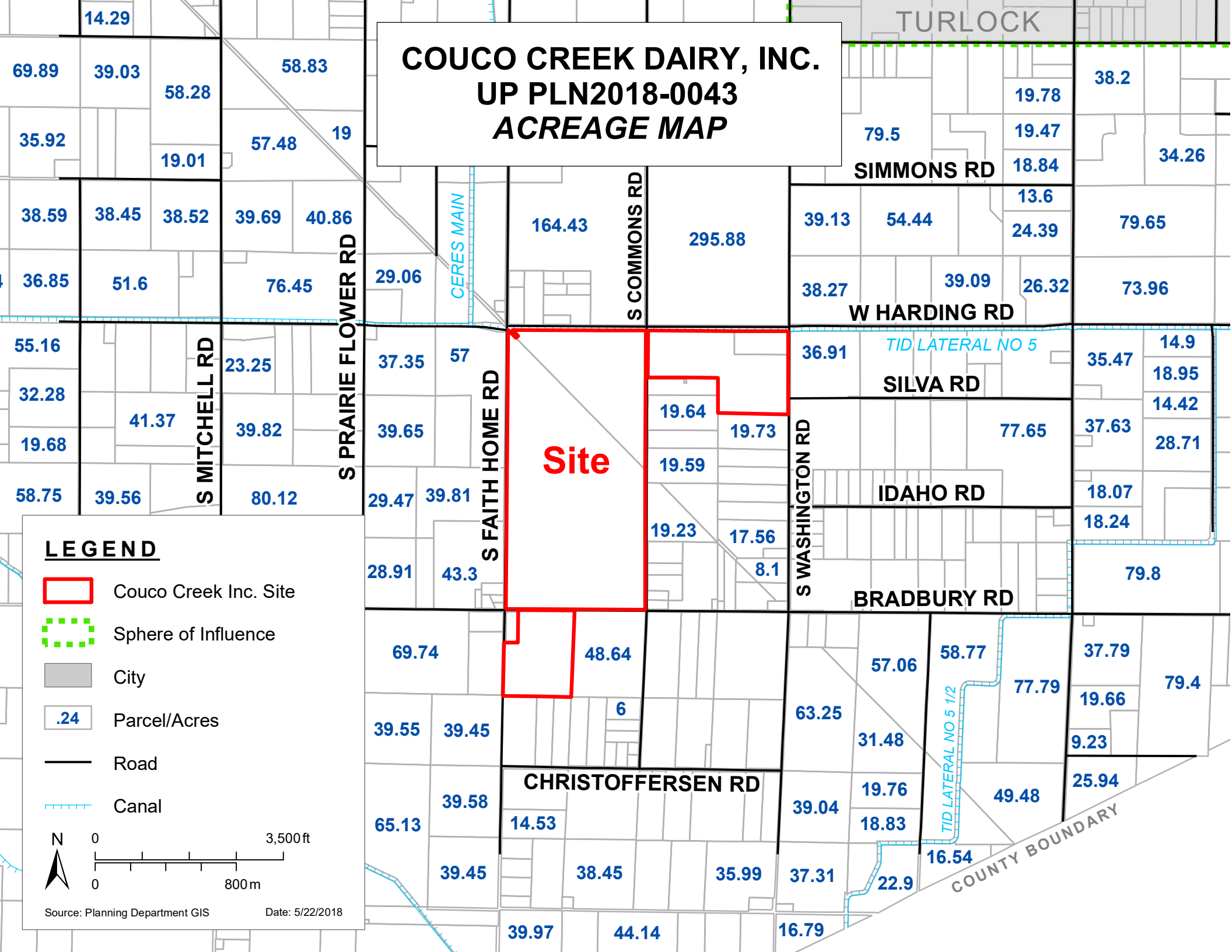
- Couco Creek Inc. Site
- City
- Parcel
- Road
- Canal

Zoning Designation

- General Agriculture 40 Acre
- Planned Development

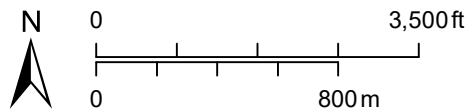


COUCO CREEK DAIRY, INC. UP PLN2018-0043 ACREAGE MAP



LEGEND

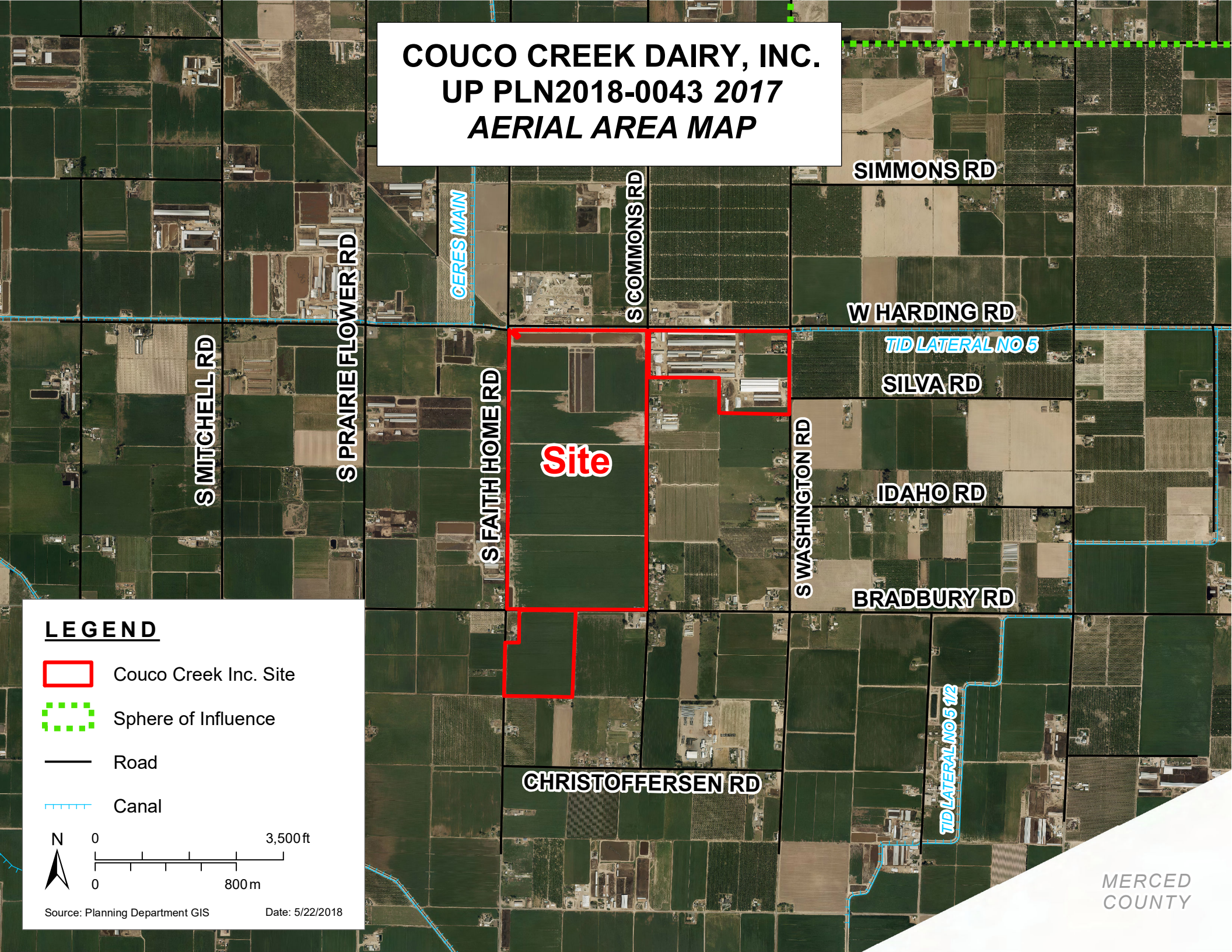
- Couco Creek Inc. Site
- Sphere of Influence
- City
- Parcel/Acres
- Road
- Canal







Source: Planning Department GIS

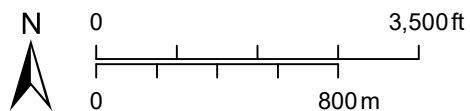
Date: 5/22/2018

COUCO CREEK DAIRY, INC. UP PLN2018-0043 2017 AERIAL AREA MAP



LEGEND

-  Couco Creek Inc. Site
-  Sphere of Influence
-  Road
-  Canal



Source: Planning Department GIS

Date: 5/22/2018

MERCED
COUNTY

**COUCO CREEK DAIRY, INC.
UP PLN2018-0043 2017
AERIAL SITE MAP**

CERES MAIN

W HARDING RD

TID LATERAL NO 5

S PRAIRIE FLOWER RD

S FAITH HOMER RD


Site


S COMMONS RD


S WASHINGTON RD

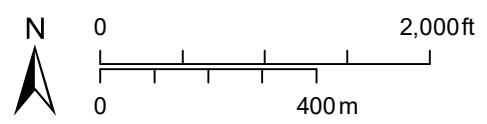
BRADBURY RD

LEGEND

 Couco Creek Inc. Site

 Road

 Canal

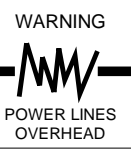


Source: Planning Department GIS

Date: 5/22/2018

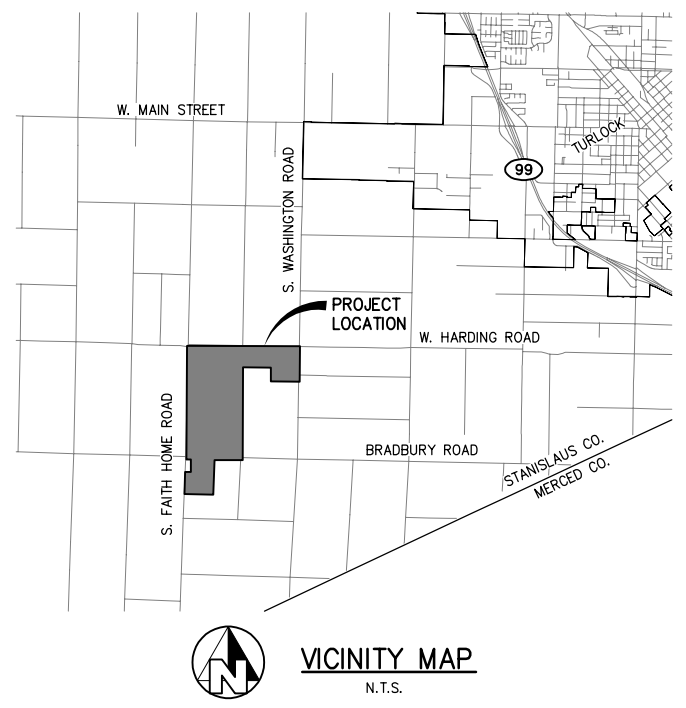
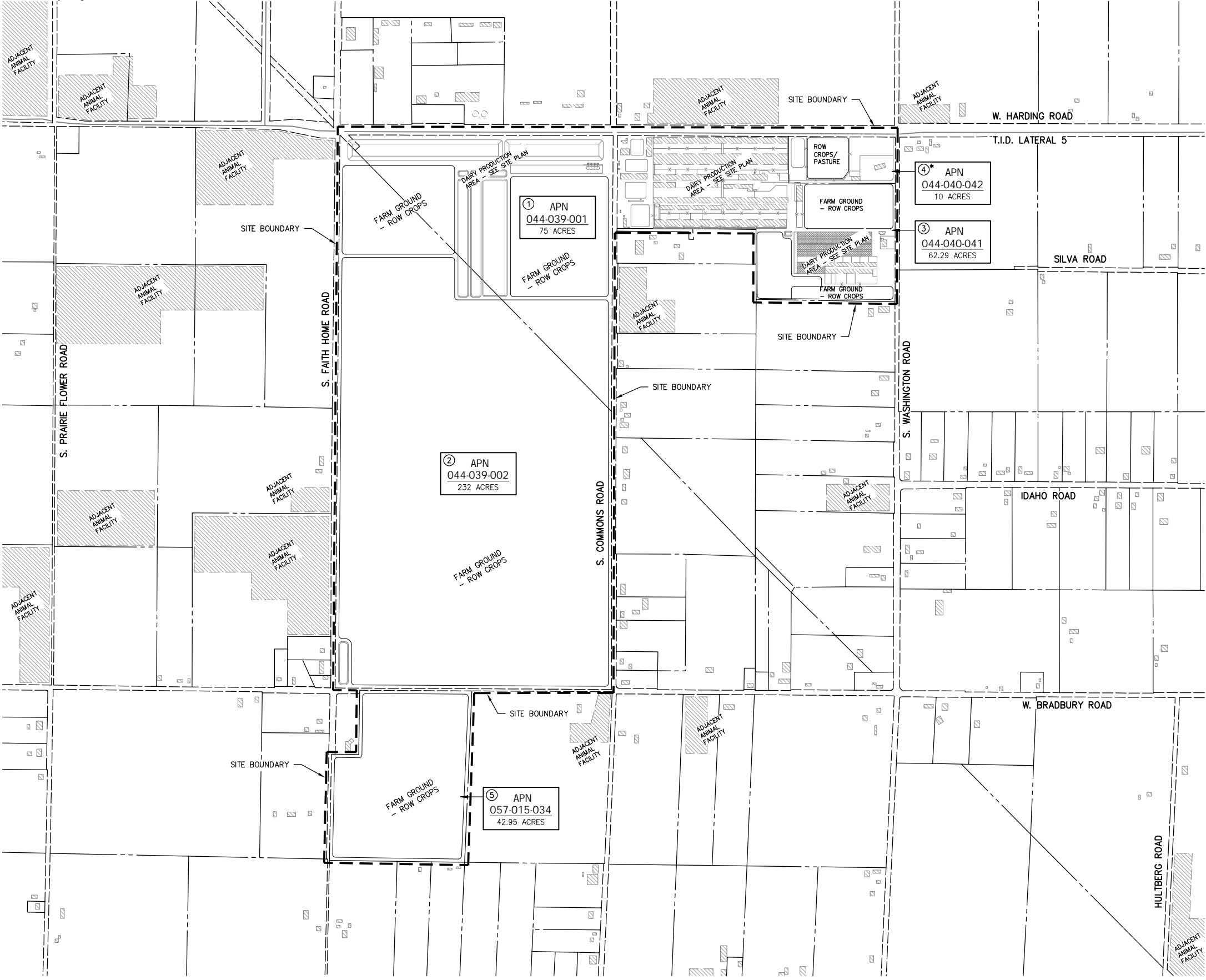


Know what's below. Call before you dig.



SITE LEGEND

	SITE BOUNDARY LINE		APPROXIMATE PROPERTY LINE
	CANALS & DITCHES		STRUCTURE / ADJACENT ANIMAL FACILITY
	APPROXIMATE RIGHT-OF-WAY		



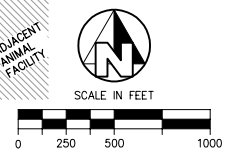
SITE DATA

OWNER:	COUCO CREEK DAIRY PO BOX 3489 TURLOCK, CA 95381	209-664-2021
JURISDICTION:	STANISLAUS COUNTY	
ZONE:	A-2-40	
SITE AREA:	422.24 AC GROSS	
A.P.N.:	SEE LAND USE TABLE	
SITE ADDRESS:	3303A S. WASHINGTON ROAD TURLOCK, CA 95380	
SEISMIC CAT:	D	
WATER:	DOMESTIC WELL	
SEWER:	SEPTIC	
GAS:	LPG	
ELECTRIC:	TID	

SUMMARY OF LAND USE

#	APN #	GROSS ACRES
1	044-039-001	75.00
2	044-039-002	232.00
3	044-040-041	62.29
4	044-040-042	10.00
5	057-015-034	42.95
TOTAL GROSS ACRES		422.24
DAIRY FACILITY		80
NON FARMABLE ACRES		27
NET FARMABLE ACRES		315

*LEASED PROPERTY



LAND USE MAP

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NOT FOR CONSTRUCTION
4/11/18

No.	REVISION	BY	DATE
-----	----------	----	------

COUCO CREEK DAIRY
COUCO CREEK DAIRY
STANISLAUS COUNTY, CALIFORNIA
COUNTY PERMITTING

LAND USE MAP

PROVOST & PRITCHARD
CONSULTING ENGINEERS
An Employee Owned Company
4701 SISK ROAD, SUITE 102
MODESTO, CALIFORNIA 95356
209/669-2300 FAX 209/669-2290
www.ppe.com

DESIGN ENGINEER:	J. TOSTE
LICENSE NO:	RCE 77353
DRAFTED BY:	P&P
CHECKED BY:	JT
DATE:	4-11-2018
JOB NO:	2301-1801
PROJECT NO:	2301
PHASE:	DES
ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.	
SHEET	1
OF	4



Know what's below.
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WARNING

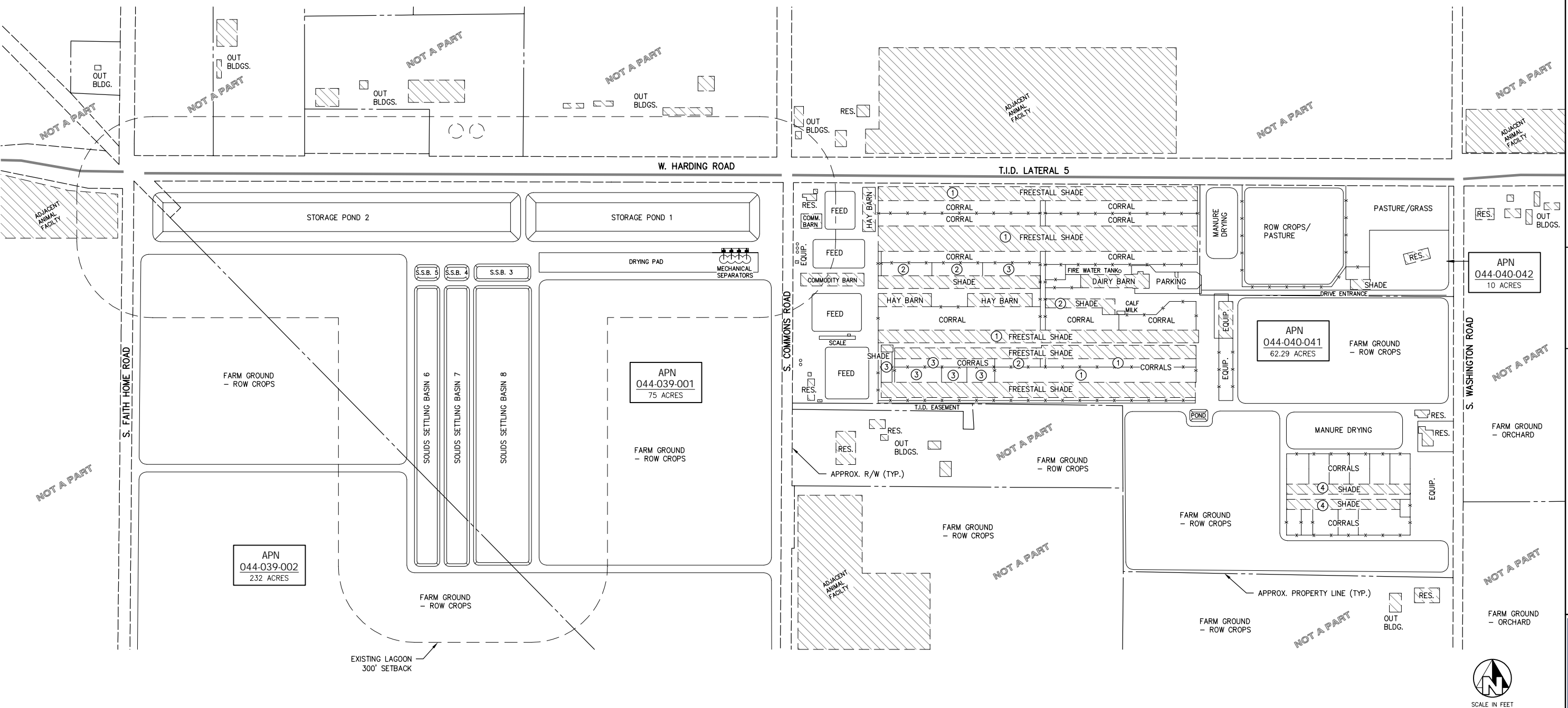


POWER LINES
OVERHEAD

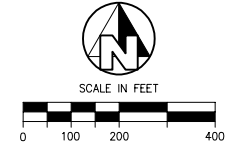
SITE LEGEND

- SITE BOUNDARY LINE
- CANALS & DITCHES
- APPROXIMATE RIGHT-OF-WAY
- HERD INDEX LABEL (SEE TABLE)
- APPROXIMATE PROPERTY LINE
- EXISTING STRUCTURE / ADJACENT ANIMAL FACILITY

HERD INDEX - EXISTING					
#	DESCRIPTION	HOUSING	FLUSH/SCRAPE	ANIMALS	
1	MILK COWS	FREESTALL / EXERCISE PEN	FLUSH	3100	
2	DRY / SPECIAL NEEDS COWS	FREESTALL / LOAFING / EXERCISE PEN	FLUSH	437	3537 MATURE COWS
3	HEIFERS	FREESTALL / LOAFING / EXERCISE PEN	FLUSH	400	
4	HEIFERS	OPEN CORRAL	FLUSH	400	
TOTAL				4,337	



SITE PLAN - EXISTING



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NOT FOR CONSTRUCTION
4/11/18

APN 044-040-042
10 ACRES

APN 044-040-041
62.29 ACRES

FARM GROUND - ROW CROPS

APN 044-039-002
232 ACRES

APN 044-039-001
75 ACRES

COUCO CREEK DAIRY
COUCO CREEK DAIRY
STANISLAUS COUNTY, CALIFORNIA
COUNTY PERMITTING

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CONSULTING ENGINEERS
An Employee Owned Company
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209/569-2300 FAX 209/609-2290
www.ppe3.com

DESIGN ENGINEER:
J. TOSTE
LICENSE NO:
RCE 77353

DRAFTED BY: P&P
CHECKED BY: JT

DATE: 4-11-2018

JOB NO: 2301-1801

PROJECT NO: 2301

PHASE: DES

ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.

SHEET **2** OF 4

4/11/2018 5:08 PM G:\Couro Creek Dairy-2301\2301-Couro Creek Dairy-3303 S Washington Turlock\2301\2301-DairyRemodel\DWG\SHEET\COUNTY\2018\2 SITE PLAN - EXISTING.dwg - Jason Toste



Know what's below. Call before you dig.

WARNING

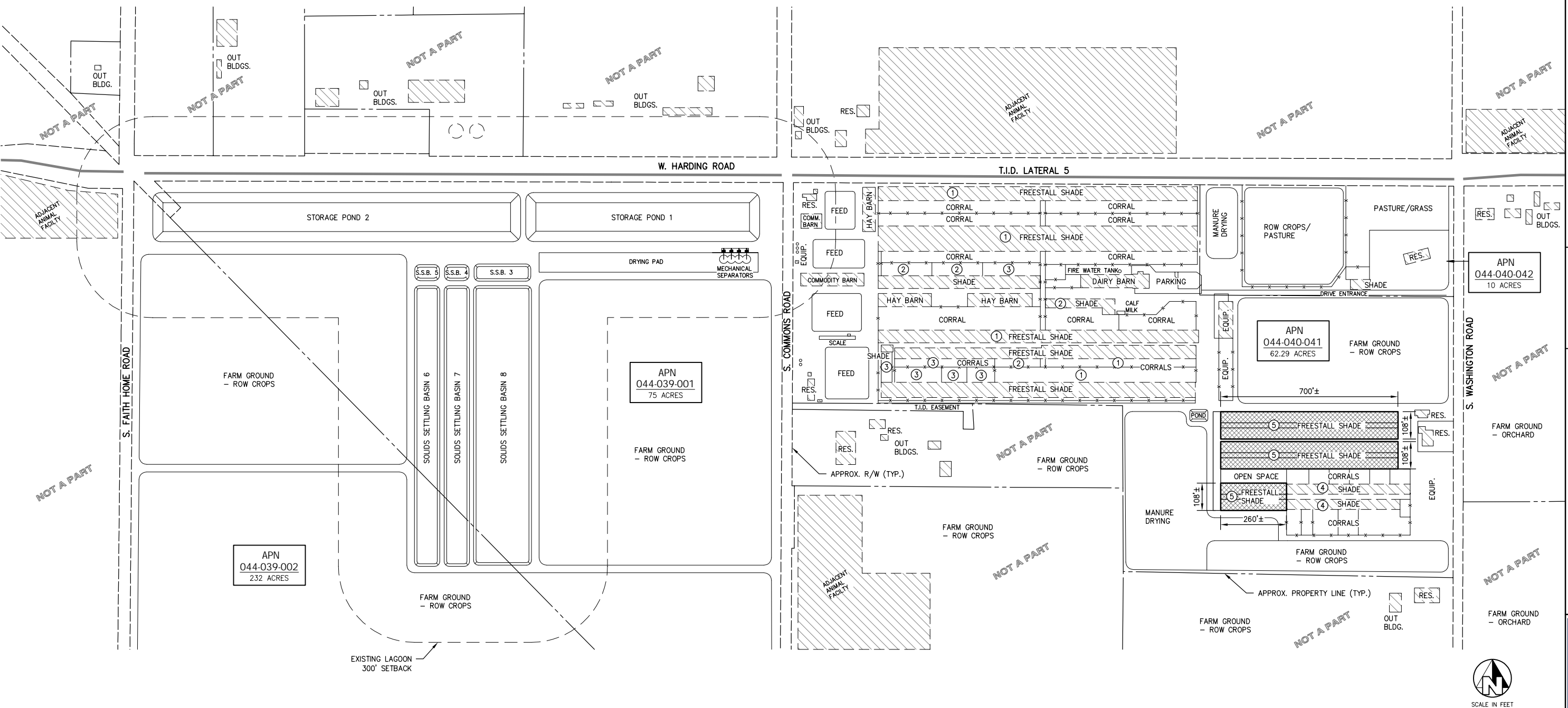


POWER LINES OVERHEAD

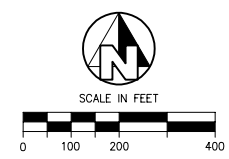
SITE LEGEND

- SITE BOUNDARY LINE
- CANALS & DITCHES
- APPROXIMATE RIGHT-OF-WAY
- HERD INDEX LABEL (SEE TABLE)
- APPROXIMATE PROPERTY LINE
- EXISTING STRUCTURE / ADJACENT ANIMAL FACILITY
- PROPOSED STRUCTURE

HERD INDEX - PROPOSED					
#	DESCRIPTION	HOUSING	FLUSH/SCRAPE	ANIMALS	
1	MILK COWS	FREESTALL / EXERCISE PEN	FLUSH	3100	
2	DRY / SPECIAL NEEDS COWS	FREESTALL / LOAFING / EXERCISE PEN	FLUSH	437	3537 MATURE COWS
3	HEIFERS	FREESTALL / LOAFING / EXERCISE PEN	FLUSH	400	
4	HEIFERS	OPEN CORRAL	FLUSH	400	
5	HEIFERS	FREESTALL / NO EXERCISE PEN	FLUSH	1980	
TOTAL				6,317	



SITE PLAN - PROPOSED



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4/11/18

APN 044-040-042
10 ACRES

APN 044-040-041
62.29 ACRES

APN 044-039-001
75 ACRES

APN 044-039-002
232 ACRES

COUCO CREEK DAIRY
COUNTY PERMITTING

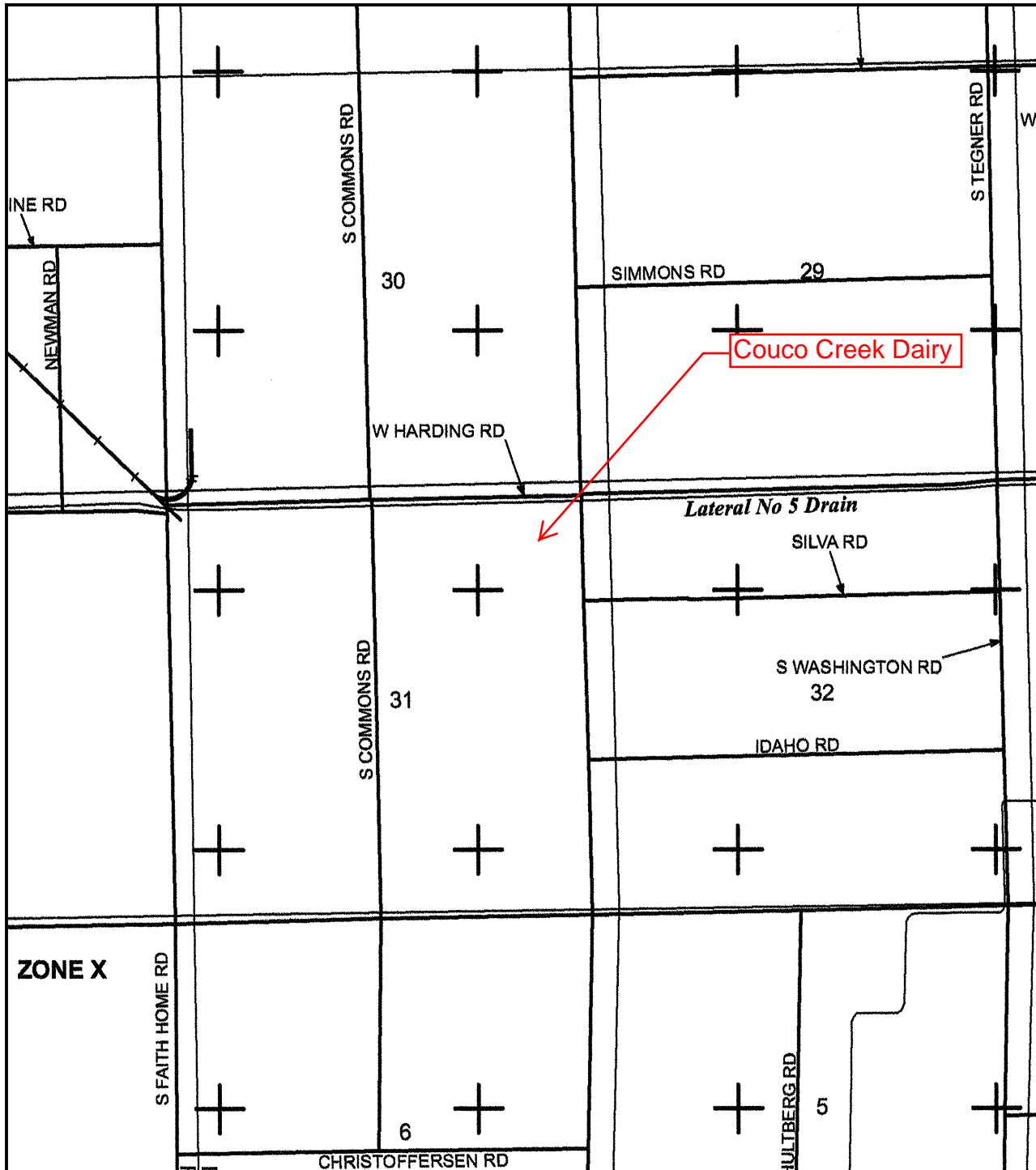
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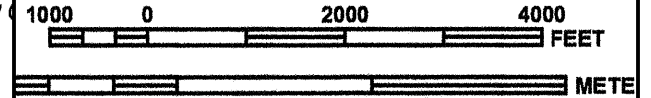
ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.

SHEET **3** OF **4**

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MAP SCALE 1" = 2000'



PANEL 0800E

FIRM

FLOOD INSURANCE RATE MAP
 STANISLAUS COUNTY,
 CALIFORNIA
 AND INCORPORATED AREAS

PANEL 800 OF 1075

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
STANISLAUS COUNTY	060384	0800	E
TURLOCK, CITY OF	060382	0800	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
 06099C0800E



















EFFECTIVE DATE
 SEPTEMBER 26, 2008

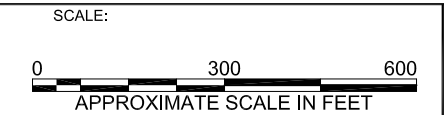
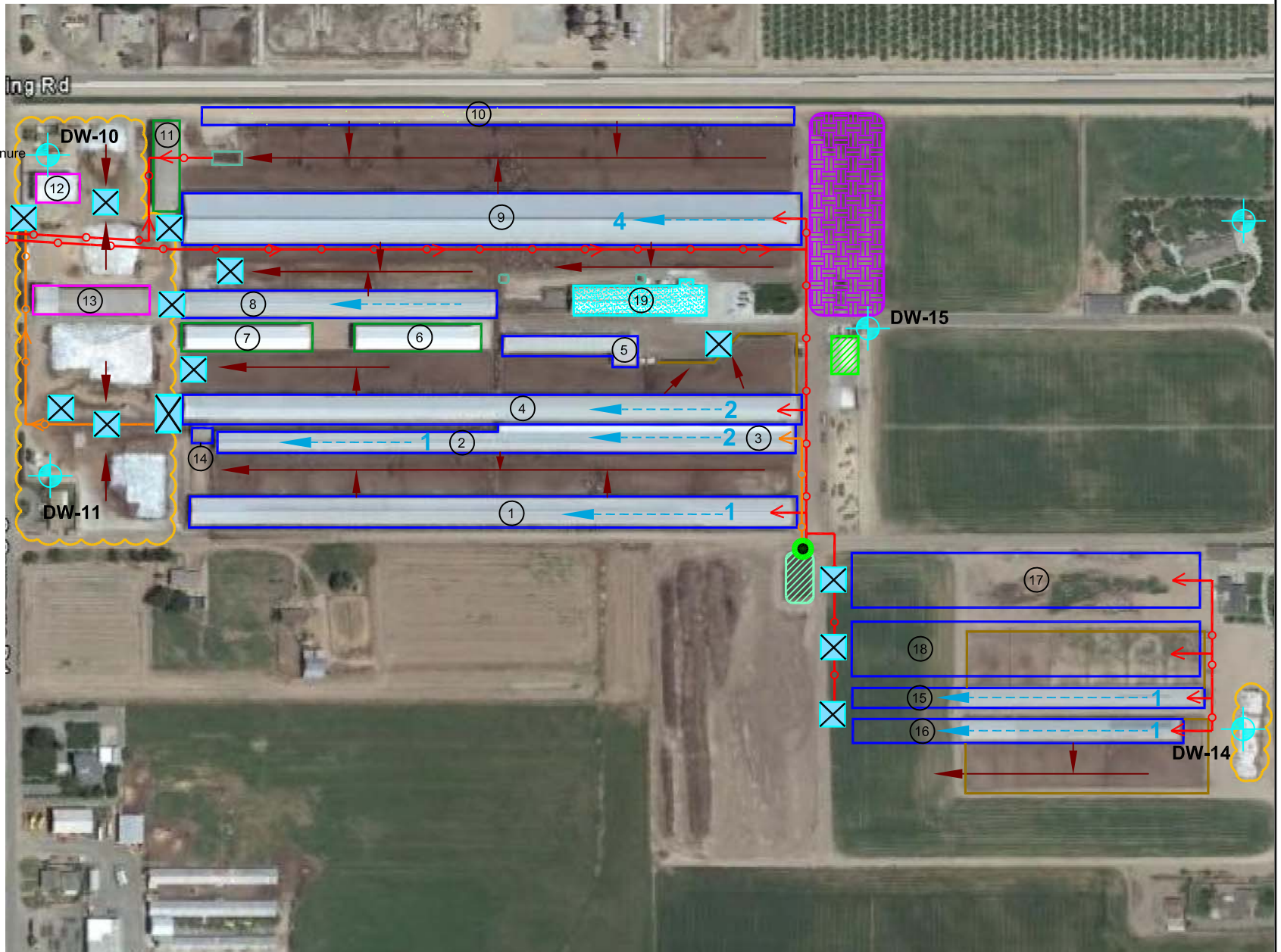


Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

LEGEND

-  Milk Barn
-  Animal Housing
-  Corral
-  Proposed Concrete Manure Stacking Pad
-  Commodity Barn
-  Hay Barn
-  Drain Sump
-  Shed/Shop
-  Tailwater Return Pond
-  Concrete
-  Domestic Well
-  Tailwater Pump
-  Drain
-  Feed Storage
-  Flush Lane
-  Flush Delivery Pipeline
-  Wastewater Pipeline
-  Flush Lanes
-  Drainage Flow






















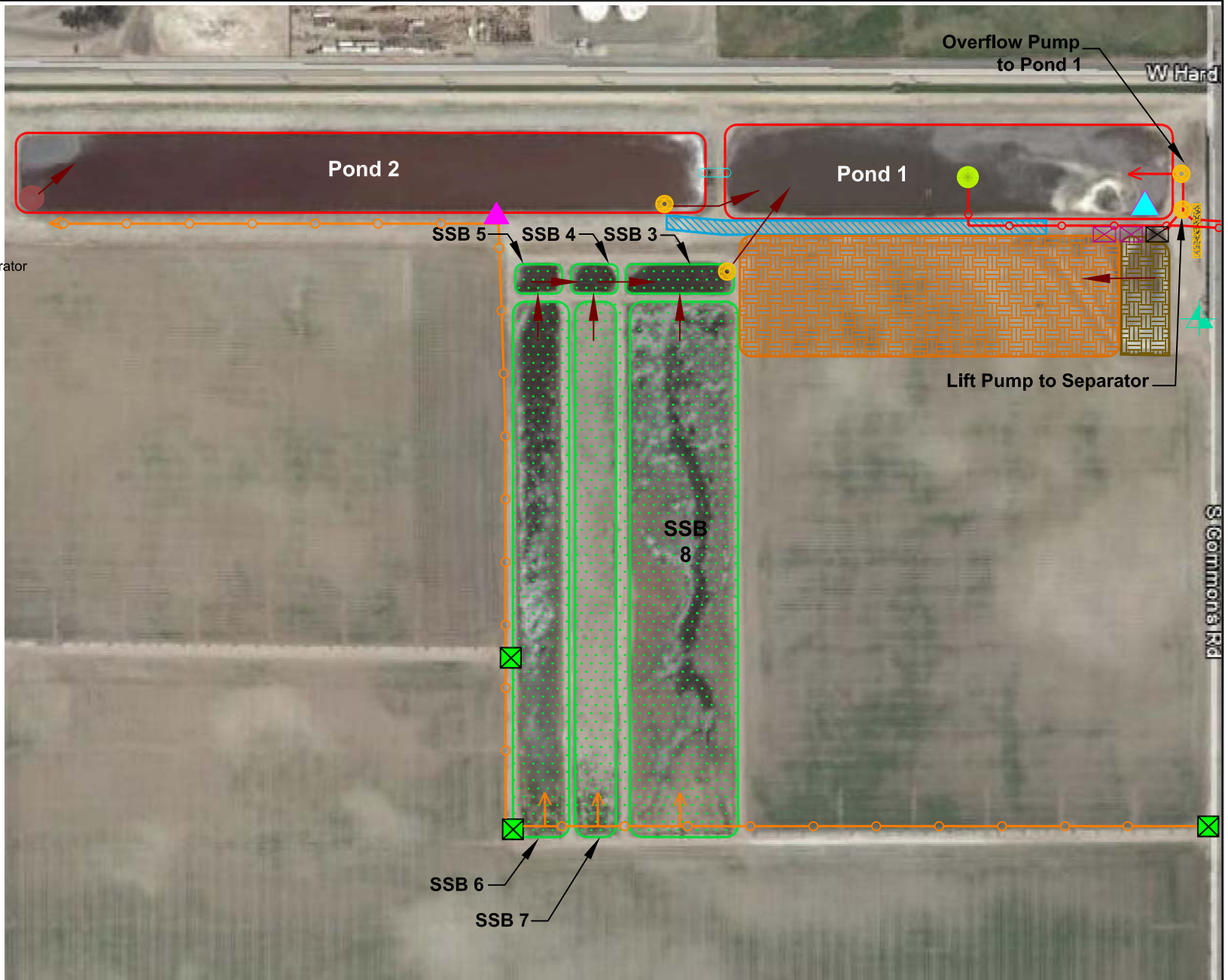
COUCO CREEK DAIRY
TURLOCK, CA

FIGURE 3A
DAIRY FACILITY

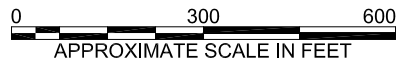
PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	3/31/18	SB	JR

LEGEND

-  Pond
-  Manure Stacking
-  Proposed Manure Storage Area
-  Mechanical Separator
-  Proposed Mechanical Separator
-  Solids Settling Basin
-  Sand Trap
-  Irrigation Well
-  Floating Pump
-  Tailwater Pump
-  Pump
-  Control Box
-  Outlet Valve
-  Lagoon Discharge Valve
-  Crossover Pipe
-  Drainage
-  Flush Delivery Pipeline
-  Wastewater Pipeline
-  Drainage Flow



SCALE:



COUCO CREEK DAIRY
TURLOCK, CA

FIGURE 3B
DAIRY FACILITY

PROJECT NO.

FRA-00

DATE:

10/7/16

DRAWN BY:




















SB

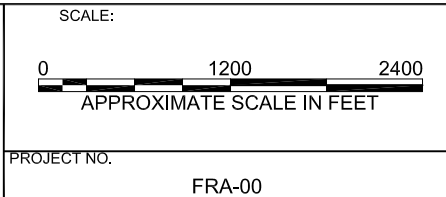
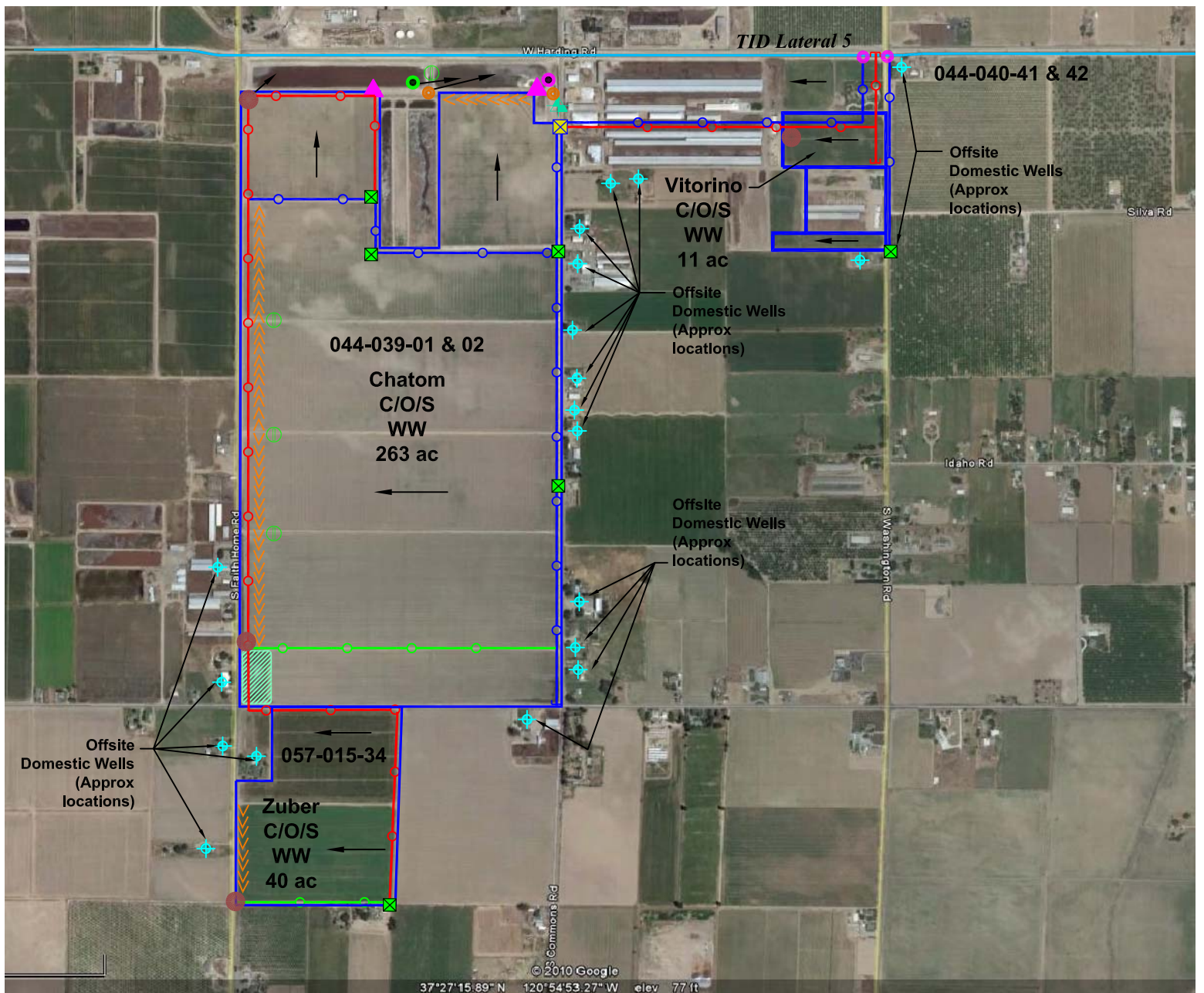
APP. BY:

JR

COUCO fields and Facility

LEGEND

-  Fields
-  Tailwater Pond
-  Control Box
-  Mixing Box
-  Irrigation Well
-  Domestic Well
-  TID Inlet Valve
-  Tailwater Pump
-  Discharge Pump to Pond 1
-  Overflow Pump to Pond 1
-  Mechanical Separator Pump
-  Outlet Valve
-  Tail Water
-  Crossover Pipe
-  Tail Water Return Pipeline
-  Wastewater Pipeline
-  Irrigation Pipeline
-  Irrigation Flow
-  Capped
- WW Waste Water
- C Corn
- O Oats
- S Sudan



COUCO CREEK DAIRY TURLOCK, CA		
DATE:	DRAWN BY:	APP. BY:
3/31/18	SB	JR

FIGURE 4
DAIRY FIELDS

COUCO fields and Facility

WASTE MANAGEMENT PLAN

Couco Creek Dairy Inc.
3303 S. Washington Road
Turlock, Ca. 95380

Prepared By:



2857 Geer Road, Suite A
Turlock, California 95382

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:

3,487 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	3,050	3,050	20	1,400
Dry Cows	437	437	6	1,450
Bred Heifers (15-24 mo.)	750	750	24	900
Heifers (7-14 mo.)	1,000	1,000	24	600
Calves (4-6 mo.)	500	500	6	
Calves (0-3 mo.)	0	0	0	

Predominant milk cow breed:

Holstein

Average milk production:

72 pounds per cow per day

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

300 milk cows per string

Number of milkings per day:

2.0 milkings per day

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

5.0 per day

Number of hours spent milking each day:

22.0 hours per day

B. MILKBARN EQUIPMENT AND FLOOR WASH

Bulk tank wash and sanitizing:

4.0 run cycles/wash

Bulk tank wash vat volume:

50 gallons/cycle

Bulk tank wash wastewater:

1,000.0 gallons/day

Pipeline wash and sanitizing:

3.0 run cycles/wash

Pipeline wash vat volume:

100 gallons/cycle

Pipeline wash wastewater:

600.0 gallons/day

Reused / recycled water is the source of parlor floor wash water:

Yes No

Milkbarn / parlor floor wash volume:

10,000 gallons/day

Plate coolers type:

Well Water Cooled (Water Reused/Recycled)

Plate coolers volume:

54,617 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:

64,992 gallons/day

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

B. SOLIDS SEPARATION PROCESS

Combined manure solids separation efficiency (weight basis): 50 %

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

Multiple Mechanical separators with six solid separation basins.

C. MANURE AND BEDDING SOLIDS SUMMARY

	cubic feet		gallons	
	day	storage period	day	storage period
Manure generated by the herd (pre-separation):	9,111.61	1,093,393	68,159.59	8,179,151
Manure generated by the herd sent to pond(s):	6,156.92	738,830	46,056.93	5,526,832
Manure generated by the herd sent to dry lot(s):	1,677.54	201,305	12,548.89	1,505,867
Manure solids (herd) removed by separation:	618.26	74,192	4,624.94	554,993
Liquid component in separated solids not sent to pond(s):	658.89	79,067	4,928.83	591,459
Imported and facility generated bedding sent to pond(s):	88.75	10,650	663.90	79,668
Total manure and bedding sent to pond(s):	6,245.67	749,480	46,720.83	5,606,500
Residual manure solids and bedding sent to pond(s) w/factor:	353.51	42,421	2,644.42	317,330
	cubic feet per year		gallons per year	
Residual manure solids and bedding sent to pond(s) w/factor:	129,030		965,213	

RAINFALL AND RUNOFF

A. RAINFALL ESTIMATES

Rainfall station nearest the facility: Turlock

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

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

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

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

Flood zone: Zone X

B. IMPERVIOUS AREAS

Name	Surface Area (sq. ft.)	Quantity	25yr/24hr Storm Runoff Coefficient	Storage Period Runoff Coefficient	Runoff Destination
Barn 10 Feed Lane	18,960	1	0.97	0.50	Drains into pond(s).
Barn 2 Feed and Flush Lanes	15,400	1	0.97	0.50	Drains into pond(s).
Barn 3 Feed Lane	5,859	1	0.97	0.50	Drains into pond(s).
Center Control Lane	4,813	1	0.97	0.50	Drains into pond(s).
Concrete Feed Area	196,140	1	0.97	0.50	Drains into pond(s).
Existing Manure Stacking Pad	60,000	1	0.97	0.50	Drains into pond(s).
Existing Separator Pad	20,230	1	0.97	0.50	Drains into pond(s).

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

Heifer Feed and Flush Lanes	12,293	1	0.97	0.50	Drains into pond(s).
Milk Barn Parking and Side Yards	67,479	1	0.97	0.50	Drains into pond(s).
North Control Lane	1,829	1	0.97	0.50	Drains into pond(s).
Proposed Manure Stacking Pad	134,000	1	0.97	0.50	Drains into pond(s).
Proposed Separator Pad Extension	150,000	1	0.97	0.50	Drains into pond(s).
South Control Lane	1,295	1	0.97	0.50	Drains into pond(s).
South Feed Alley and Flush Lane	36,313	1	0.97	0.50	Drains into pond(s).
Sprinkler/Crowd Pens	5,110	1	0.97	0.50	Drains into pond(s).

Surface area that does not run off into pond(s):	<u>0</u> sq. ft.
Surface area that runs off into pond(s):	<u>729,721</u> sq. ft.
Total surface area:	<u>729,721</u> sq. ft.
Runoff from normal storage period rainfall:	<u>1,946,934</u> gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	<u>2,920,400</u> gallons/storage period
25 year/24 hour storm event runoff:	<u>1,103,111</u> gallons/storage period
Total surface area runoff:	<u>3,050,044</u> gallons/storage period
Total surface area runoff with 1.5 factor:	<u>4,023,511</u> gallons/storage period

C. ROOF AREAS

Name	Surface Area (sq. ft.)	Quantity	Runoff Destination
Barn 1	72,879	1	Wastewater pond
Barn 10	58,607	1	Wastewater pond
Barn 11	8,752	1	Wastewater pond
Barn 12	4,428	1	Wastewater pond
Barn 13	12,938	1	Wastewater pond
Barn 14	1,100	1	Wastewater pond
Barn 15	19,704	1	Wastewater pond
Barn 16	19,483	1	Wastewater pond
Barn 19	14,785	1	Wastewater pond
Barn 2	21,737	1	Wastewater pond
Barn 3	32,811	1	Wastewater pond
Barn 4	58,178	1	Wastewater pond
Barn 5	10,639	1	Wastewater pond
Barn 6	12,325	1	Wastewater pond
Barn 7	10,115	1	Wastewater pond
Barn 8	29,331	1	Wastewater pond
Barn 9	125,459	1	Wastewater pond

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

Proposed Barn 19	26,750	1 To Field
Proposed Barns 17 and 18	74,900	2 To Field

Surface area that does not run off into pond(s):	<u>176,550</u> sq. ft.
Surface area that runs off into pond(s):	<u>513,271</u> sq. ft.
Total surface area:	<u>689,821</u> sq. ft.
Runoff from normal storage period rainfall:	<u>2,738,867</u> gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	<u>4,108,301</u> gallons/storage period
25 year/24 hour storm event runoff:	<u>799,903</u> gallons/storage period
Total surface area runoff:	<u>3,538,770</u> gallons/storage period
Total surface area runoff with 1.5 factor:	<u>4,908,204</u> gallons/storage period

D. EARTHEN AREAS

Name	Surface Area (sq. ft.)	Quantity	25yr/24 Storm Coefficient	Storage Period Coefficient	Runoff Destination
Earthen Areas subtracting Roof and Concrete	820,475	1	0.35	0.20	Drains into pond(s).
Earthen Areas subtracting Roof and Concrete	826,475	1	0.35	0.20	Drains into pond(s).

Surface area that does not run off into pond(s):	<u>0</u> sq. ft.
Surface area that runs off into pond(s):	<u>1,646,950</u> sq. ft.
Total surface area:	<u>1,646,950</u> sq. ft.
Runoff from normal storage period rainfall:	<u>1,757,659</u> gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	<u>2,636,489</u> gallons/storage period
25 year/24 hour storm event runoff:	<u>898,336</u> gallons/storage period
Total surface area runoff:	<u>2,655,996</u> gallons/storage period
Total surface area runoff with 1.5 factor:	<u>3,534,825</u> gallons/storage period

E. TAILWATER MANAGEMENT

No fields with tailwater entered.

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

LIQUID STORAGE

A. POND OR BASIN DESCRIPTION: Pond 1

Pond is rectangular in shape: Yes No

Dimensions

Earthen Length (EL):	<u>923</u> ft.	Earthen Depth (ED):	<u>17</u> ft.
Earthen Width (EW):	<u>193</u> ft.	Side Slope (S):	<u>1.8</u> ft. (h:1v)
Free Board (FB):	<u>2</u> ft.	Dead Storage Loss (DS):	<u>2.0</u> ft.

Calculations

Liquid Length (LL):	<u>916</u> ft.	Storage Volume Adjusted for Dead Storage Loss:	<u>1,886,408</u> cu. ft.
Liquid Width (LW):	<u>186</u> ft.	Pond Marker Elevation:	<u>14.4</u> ft.
Pond Surface Area:	<u>178,139</u> sq. ft.	Evaporation Volume:	<u>908,197</u> gals/period
Storage Volume:	<u>2,120,767</u> cu. ft.	Adjusted Surface Area:	<u>168,916</u> sq. ft.

POND OR BASIN DESCRIPTION: Pond 2

Pond is rectangular in shape: Yes No

Dimensions

Earthen Length (EL):	<u>1,452</u> ft.	Earthen Depth (ED):	<u>14</u> ft.
Earthen Width (EW):	<u>194</u> ft.	Side Slope (S):	<u>1.4</u> ft. (h:1v)
Free Board (FB):	<u>2</u> ft.	Dead Storage Loss (DS):	<u>2.0</u> ft.

Calculations

Liquid Length (LL):	<u>1,446</u> ft.	Storage Volume Adjusted for Dead Storage Loss:	<u>2,498,759</u> cu. ft.
Liquid Width (LW):	<u>188</u> ft.	Pond Marker Elevation:	<u>11.4</u> ft.
Pond Surface Area:	<u>281,688</u> sq. ft.	Evaporation Volume:	<u>1,457,539</u> gals/period
Storage Volume:	<u>2,944,961</u> cu. ft.	Adjusted Surface Area:	<u>271,088</u> sq. ft.

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POND OR BASIN DESCRIPTION: SSB 3

Pond is rectangular in shape: Yes No

Dimensions

Earthen Length (EL): 224 ft.

Earthen Depth (ED): 3 ft.

Earthen Width (EW): 68 ft.

Side Slope (S): 1.7 ft. (h:1v)

Free Board (FB): 1 ft.

Dead Storage Loss (DS): 1.9 ft.

Calculations

Liquid Length (LL): 221 ft.

Storage Volume Adjusted for Dead Storage Loss: 1,420 cu. ft.

Liquid Width (LW): 65 ft.

Pond Surface Area: 15,232 sq. ft.

Pond Marker Elevation: 1.3 ft.

Storage Volume: 26,593 cu. ft.

Evaporation Volume: 74,962 gals/period

Adjusted Surface Area: 13,942 sq. ft.

POND OR BASIN DESCRIPTION: SSB 4

Pond is rectangular in shape: Yes No

Dimensions

Earthen Length (EL): 97 ft.

Earthen Depth (ED): 4 ft.

Earthen Width (EW): 63 ft.

Side Slope (S): 1.6 ft. (h:1v)

Free Board (FB): 1 ft.

Dead Storage Loss (DS): 2.9 ft.

Calculations

Liquid Length (LL): 94 ft.

Storage Volume Adjusted for Dead Storage Loss: 558 cu. ft.

Liquid Width (LW): 60 ft.

Pond Surface Area: 6,111 sq. ft.

Pond Marker Elevation: 2.3 ft.

Storage Volume: 14,708 cu. ft.

Evaporation Volume: 29,304 gals/period

Adjusted Surface Area: 5,450 sq. ft.

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POND OR BASIN DESCRIPTION: SSB 5

Pond is rectangular in shape: Yes No

Dimensions

Earthen Length (EL): 97 ft.
 Earthen Width (EW): 63 ft.
 Free Board (FB): 1 ft.

Earthen Depth (ED): 2 ft.
 Side Slope (S): 1.9 ft. (h:1v)
 Dead Storage Loss (DS): 0.9 ft.

Calculations

Liquid Length (LL): 93 ft.
 Liquid Width (LW): 59 ft.
 Pond Surface Area: 6,111 sq. ft.
 Storage Volume: 5,233 cu. ft.

Storage Volume Adjusted
 for Dead Storage Loss: 549 cu. ft.
 Pond Marker Elevation: 0.3 ft.
 Evaporation Volume: 28,643 gals/period
 Adjusted Surface Area: 5,327 sq. ft.

POND OR BASIN DESCRIPTION: SSB 6

Pond is rectangular in shape: Yes No

Dimensions

Earthen Length (EL): 1,108 ft.
 Earthen Width (EW): 100 ft.
 Free Board (FB): 1 ft.

Earthen Depth (ED): 4 ft.
 Side Slope (S): 2.5 ft. (h:1v)
 Dead Storage Loss (DS): 2.9 ft.

Calculations

Liquid Length (LL): 1,103 ft.
 Liquid Width (LW): 95 ft.
 Pond Surface Area: 110,800 sq. ft.
 Storage Volume: 287,625 cu. ft.

Storage Volume Adjusted
 for Dead Storage Loss: 10,449 cu. ft.
 Pond Marker Elevation: 2.4 ft.
 Evaporation Volume: 553,223 gals/period
 Adjusted Surface Area: 102,894 sq. ft.

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POND OR BASIN DESCRIPTION: SSB 7

Pond is rectangular in shape: Yes No

Dimensions

Earthen Length (EL): <u>1,108</u> ft.	Earthen Depth (ED): <u>4</u> ft.
Earthen Width (EW): <u>100</u> ft.	Side Slope (S): <u>2.5</u> ft. (h:1v)
Free Board (FB): <u>1</u> ft.	Dead Storage Loss (DS): <u>2.9</u> ft.

Calculations

Liquid Length (LL): <u>1,103</u> ft.	Storage Volume Adjusted for Dead Storage Loss: <u>10,449</u> cu. ft.
Liquid Width (LW): <u>95</u> ft.	
Pond Surface Area: <u>110,800</u> sq. ft.	Pond Marker Elevation: <u>2.4</u> ft.
Storage Volume: <u>287,625</u> cu. ft.	Evaporation Volume: <u>553,223</u> gals/period
	Adjusted Surface Area: <u>102,894</u> sq. ft.

POND OR BASIN DESCRIPTION: SSB 8

Pond is rectangular in shape: Yes No

Dimensions

Earthen Length (EL): <u>1,103</u> ft.	Earthen Depth (ED): <u>4</u> ft.
Earthen Width (EW): <u>229</u> ft.	Side Slope (S): <u>2.3</u> ft. (h:1v)
Free Board (FB): <u>1</u> ft.	Dead Storage Loss (DS): <u>2.9</u> ft.

Calculations

Liquid Length (LL): <u>1,098</u> ft.	Storage Volume Adjusted for Dead Storage Loss: <u>24,618</u> cu. ft.
Liquid Width (LW): <u>224</u> ft.	
Pond Surface Area: <u>252,587</u> sq. ft.	Pond Marker Elevation: <u>2.4</u> ft.
Storage Volume: <u>712,251</u> cu. ft.	Evaporation Volume: <u>1,315,224</u> gals/period
	Adjusted Surface Area: <u>244,619</u> sq. ft.

Potential storage losses (due to dead storage): 1,966,553.0 cubic feet - or - 14,710,838.0 gallons

Liquid storage surface area: 924,086 sq. ft.

Rainfall onto retention pond(s): 5,130,493 gallons/storage period

Rainfall runoff into retention pond(s): 6,443,460 gallons/storage period

Normal rainfall onto retention pond(s) with 1.5 factor: 7,695,740 gallons/storage period

Normal rainfall runoff into retention pond(s) with 1.5 factor: 9,665,190 gallons/storage period

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

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

Storage period evaporation volume: 4,920,315 gallons/storage period

Manure and bedding sent to pond(s): 5,606,500 gallons/storage period

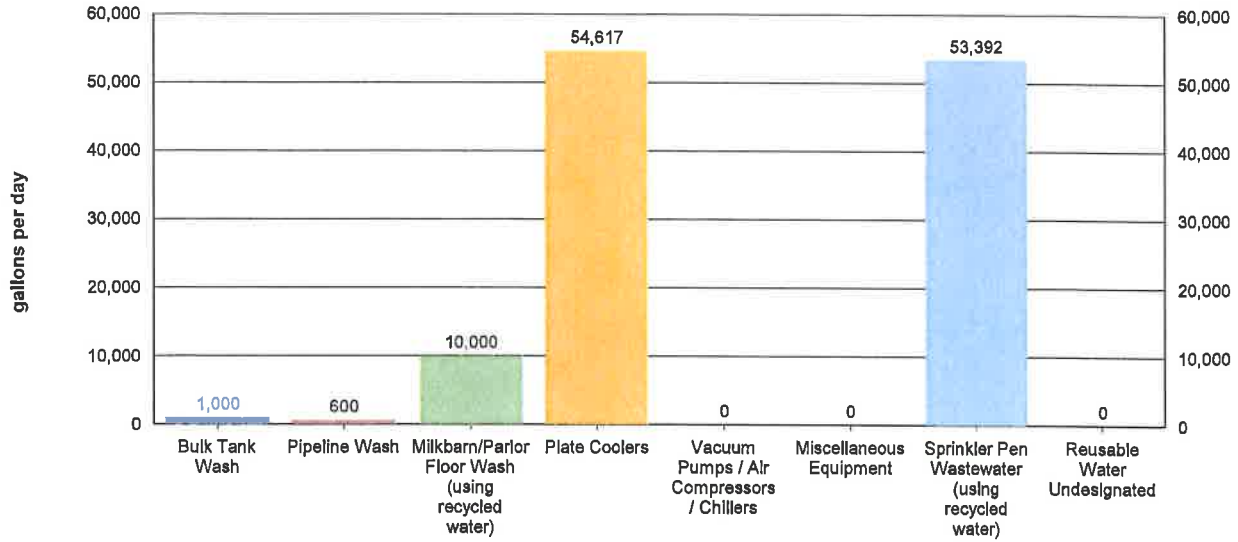
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Milkbarn water sent to pond(s):	<u>7,799,040</u> gallons/storage period
Fresh flush water for storage period:	<u>0</u> gallons/storage period

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CHARTS

A. MILKBARN WASTEWATER SENT TO POND(S)



Values shown in chart are approximate values per day.

Total milkbarn wastewater generated daily:

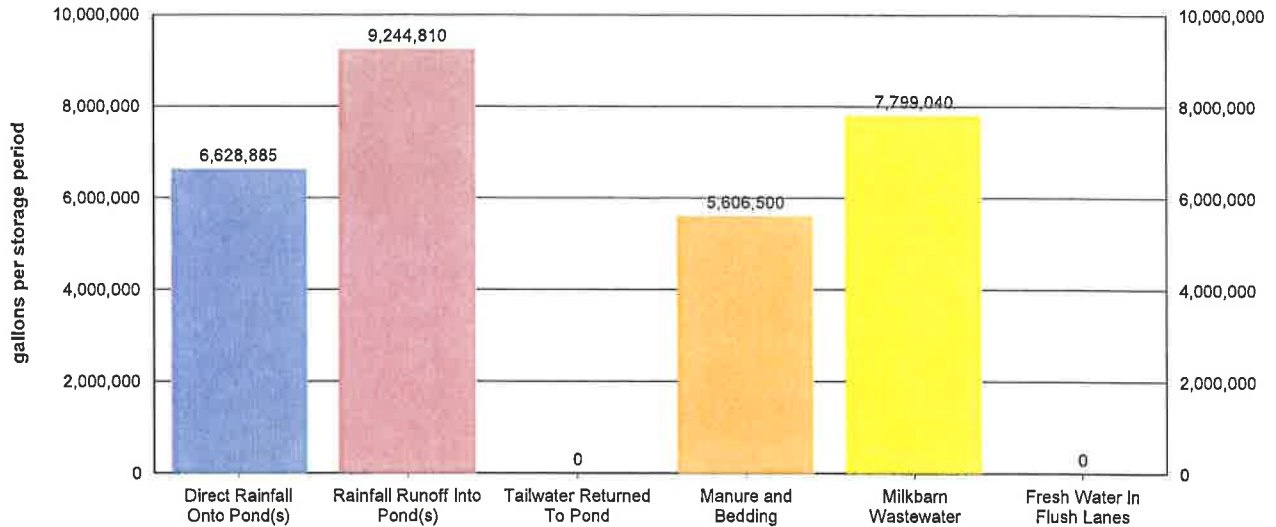
64,992 gallons/day

Total milkbarn wastewater generated per period:

7,799,040 gallons/storage period

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B. PROCESS WASTEWATER (NORMAL PRECIPITATION)



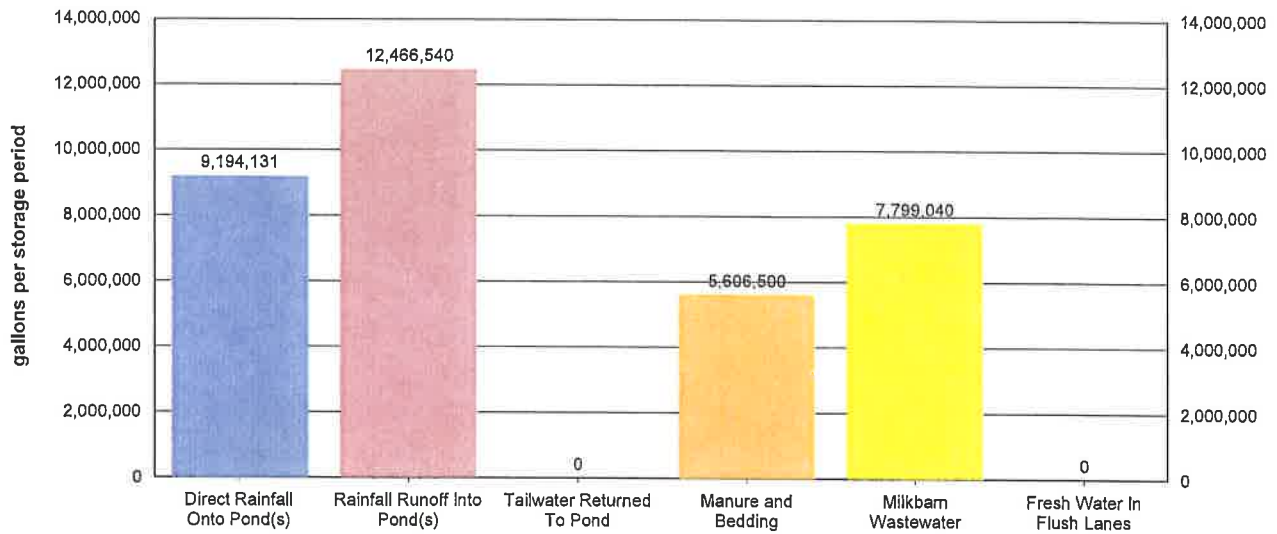
Values shown in chart are approximate values for storage period.

Storage period:	<u>120</u> days
Total process wastewater generated daily:	<u>243,994</u> gallons/day
Total process wastewater generated per period:	<u>29,279,235</u> gallons/storage period
Total process wastewater removed due to evaporation:	<u>4,920,315</u> gallons/storage period
Total storage capacity required:	<u>24,358,920</u> gallons
	<u>3,256,314</u> cu. ft.
Existing storage capacity (adjusted for dead storage loss):	<u>33,162,714</u> gallons
	<u>4,433,210</u> cu. ft.

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

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C. PROCESS WASTEWATER (NORMAL PRECIPITATION WITH 1.5 FACTOR)



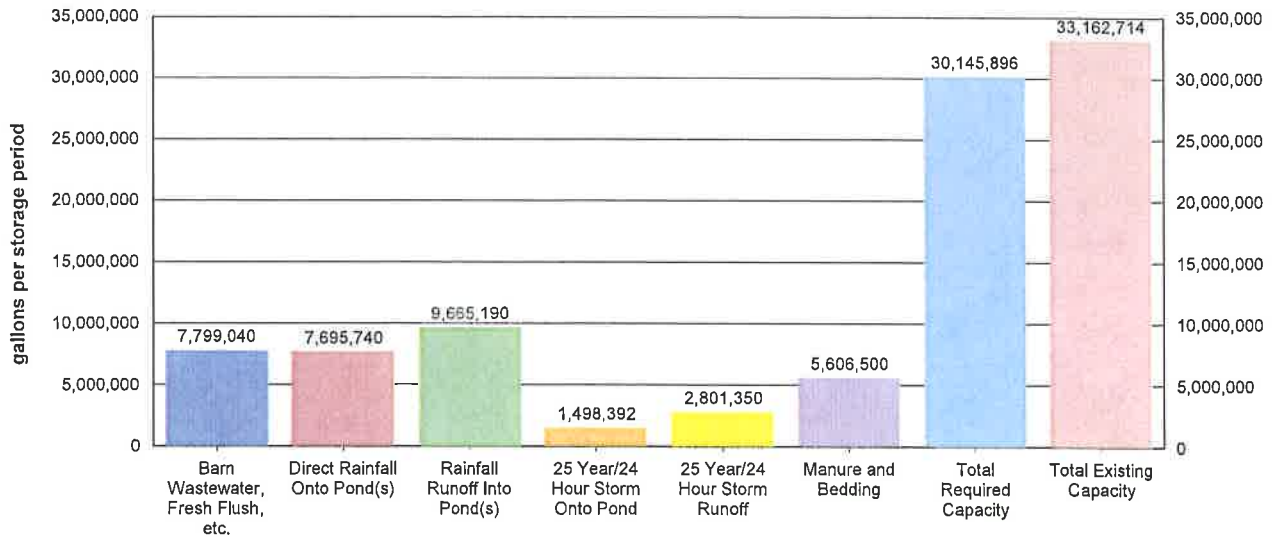
Values shown in chart are approximate values for storage period.

Storage period:	<u>120</u> days
Total process wastewater generated daily:	<u>292,218</u> gallons/day
Total process wastewater generated per period:	<u>35,066,211</u> gallons/storage period
Total process wastewater removed due to evaporation:	<u>4,920,315</u> gallons/storage period
Total storage capacity required:	<u>30,145,896</u> gallons
	<u>4,029,920</u> cu. ft.
Existing storage capacity (adjusted for dead storage loss):	<u>33,162,714</u> gallons
	<u>4,433,210</u> cu. ft.

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

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



Values shown in chart are approximate values for storage period.

Storage period:	<u>120</u> days
Barn wastewater, fresh flush water, and tailwater:	<u>7,799,040</u> gallons/storage period
Manure and bedding sent to pond:	<u>5,606,500</u> gallons/storage period
Precipitation onto pond:	<u>7,695,740</u> gallons/storage period
Precipitation runoff:	<u>9,665,190</u> gallons/storage period
25 year/24 hour storm onto pond:	<u>1,498,392</u> gallons/storage period
25 year/24 hour storm runoff:	<u>2,801,350</u> gallons/storage period
Residual solids after liquids have been removed (liquid equivalent):	<u>317,330</u> gallons/storage period
Total process wastewater removed due to evaporation:	<u>4,920,315</u> gallons/storage period
Total required capacity:	<u>30,145,896</u> gallons/storage period
Total existing capacity:	<u>33,162,714</u> gallons/storage period
Existing capacity meets estimated storage needs:	<input checked="" type="checkbox"/> Yes [] No

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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: Pond 1

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

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

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

Sludge accumulation will be measured annually.

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

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

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When solids/sludge accumulate to a thickness of 7.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

Water is added throughout the year to dilute solids. Solids can be transferred to SSB's 6-8 for drying or pumped out directly during irrigations. If necessary, storage can also be agitated and pumped into slurry wagons or directly excavated for Spring and/or Fall application. If excavation is required, cleaning equipment operator will be informed as to overall depth of storage and instructed to remain 6-12 inches from the floor.

OPERATIONS AND MAINTENANCE PLAN FOR POND: Pond 2

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

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

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

Sludge accumulation will be measured annually.

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

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

When solids/sludge accumulate to a thickness of 4.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

Water is added throughout the year to dilute solids. Solids can be transferred to SSB's 6-8 for drying or pumped out directly during irrigations. If necessary, storage can also be agitated and pumped into slurry wagons or directly excavated for Spring and/or Fall application. If excavation is required, cleaning equipment operator will be informed as to overall depth of storage and instructed to remain 6-12 inches from the floor.

OPERATIONS AND MAINTENANCE PLAN FOR POND: SSB 4

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

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

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

Sludge accumulation will be measured annually.

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

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

When solids/sludge accumulate to a thickness of 3.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

SSB is dewatered and solids are allowed to dry. Manure is then typically removed from the basin using a front end loader.

OPERATIONS AND MAINTENANCE PLAN FOR POND: SSB 6

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

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

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

Sludge accumulation will be measured annually.

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

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

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When solids/sludge accumulate to a thickness of 3.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

SSB is dewatered and solids are allowed to dry. Manure is then typically removed from the basin using a front end loader.

OPERATIONS AND MAINTENANCE PLAN FOR POND: SSB 7

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

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

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

Sludge accumulation will be measured annually.

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

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

When solids/sludge accumulate to a thickness of 3.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

SSB is dewatered and solids are allowed to dry. Manure is then typically removed from the basin using a front end loader.

OPERATIONS AND MAINTENANCE PLAN FOR POND: SSB 8

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

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

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

Sludge accumulation will be measured annually.

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

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

When solids/sludge accumulate to a thickness of 3.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

SSB is dewatered and solids are allowed to dry. Manure is then typically removed from the basin using a front end loader.

OPERATIONS AND MAINTENANCE PLAN FOR POND: SSB 3

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

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

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

Sludge accumulation will be measured annually.

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

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

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

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SSB is dewatered and solids are allowed to dry. Manure is then typically removed from the basin using a front end loader.

OPERATIONS AND MAINTENANCE PLAN FOR POND: SSB 5

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

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

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

Sludge accumulation will be measured annually.

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

SSB is dewatered and solids are allowed to dry. Manure is then typically removed from the basin using a front end loader.

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:

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

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.

<i>Buildings with rooftop rainfall collection systems</i>	Quantity	Surface Area (sq. ft.)
Barn 1	1	72,879
Barn 10	1	58,607
Barn 11	1	8,752
Barn 12	1	4,428
Barn 13	1	12,938
Barn 14	1	1,100
Barn 15	1	19,704
Barn 16	1	19,483
Barn 19	1	14,785
Barn 2	1	21,737
Barn 3	1	32,811
Barn 4	1	58,178
Barn 5	1	10,639
Barn 6	1	12,325
Barn 7	1	10,115

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Barn 8	1	29,331
Barn 9	1	125,459
Proposed Barn 19	1	26,750
Proposed Barns 17 and 18	2	149,800

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:

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

C. CORRAL MAINTENANCE

- i. Monthly from June 1st through September 30th (dry season) and weekly from October 1st through May 31st (wet season), the perimeter of the corrals and pens will be assessed to ensure that 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: 5th of each month

Day of the week wet season assessment will occur: Monday

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

Conditions requiring manure removal and/or regrading:

Corral conditions should be assessed by October 1 of each year to allow the owner/operator the opportunity to regrade and add fill material to the corrals. The corrals should be graded to prevent accumulation of wastewater in the corrals for longer than 48 hours. Well maintained/scraped corrals should provide adequate drainage at 1% to 1 1/2% slope.

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

D. FEED STORAGE AREA MAINTENANCE

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- i. During the dry season and prior to the wet season, the perimeter of storage areas will be assessed to ensure all runoff 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 runoff and runoff controls such as berms are functioning correctly and runoff and leachate from the areas are collected and diverted into the wastewater pond(s). Any issues identified and corrective actions performed will be recorded on a Dairy Production Area Visual Inspection Form - Manure and Feed Storage Areas.
- ii. During the wet season, manure storage area(s) will be assessed to determine if there are depressions within any manure storage area that should be filled to prevent ponding.
- iii. Any necessary regrading/resurfacing and berm/conveyance maintenance will be completed on an annual basis.

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

Day of the month wet season assessment will occur: Monday

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

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

F. ANIMAL HOUSING AND FLUSH WATER CONVEYANCE SYSTEM MAINTENANCE

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

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

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

Animal housing area drainage system assessment and maintenance methods:

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

G. MORTALITY MANAGEMENT

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

Rendering company or landfill name: Kows R Us

Rendering company or landfill telephone number: (559) 668-3805

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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 No

I. MONITORING SALT IN ANIMAL RATIONS

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

Assessment interval: Monthly

J. CHEMICAL MANAGEMENT

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

Chemical Name	Quantity	Units	Frequency	Usage Area	Destination (Used Chemical / Container)	Disposal Company		Collection Frequency
						Name	Phone	
G.R. 100 chlorinated detergent	165	gallons	month	Milk Barn	Returned to supplier	TDR	(209) 667-6455	as needed
G.R. 200 CIP Acid Cleaner	65	gallons	month	Milk Barn	Returned to supplier	TDR	(209) 667-6455	as needed
HASA 12.5% Hypo Chloride	30	gallons	month	Milk Barn	Returned to supplier	TDR	(209) 667-6455	as needed

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

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: Figures 2A & 2B

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: Figure 3

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: NA

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: Figures 2A, 2B & 3

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: Figure 1

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: Figures 3a, 3b & 4

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

Provide a site map (or maps) of appropriate scale to show property boundaries and the location of the features of all land application areas (land under the Discharger's control, whether it is owned, rented, or leased, to which manure or process wastewater from the production area is or may be applied for nutrient recycling) including the following in sufficient detail: process wastewater conveyance structures, discharge points and discharge mixing points with irrigation water supplies; pumping facilities; flow meter locations; drainage ditches and canals, culverts, drainage controls (berms, levees, etc.), and drainage easements.

Land application infrastructure system area map reference number: Figure 4

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: Figure 2A

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: 06099C0800E

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 Certificate

Waste Management Plan Report
General Order No. R5-2007-0035, Attachment B
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CERTIFICATION

A. DAIRY FACILITY INFORMATION

Name of dairy or business operating the dairy: Couco Creek Dairy Inc.

Physical address of dairy:

3303 S Washington RD
Number and Street

Turlock
City

Stanislaus
County

95380
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

Digitally signed by Manny Sousa,
PE
Date: 2018.04.20 08:26:20 -07'00'

4/20/2018

SIGNATURE OF CIVIL ENGINEER

DATE

Manuel Sousa

PRINT OR TYPE NAME

P.O. Box 1613; Oakdale, CA 95361

MAILING ADDRESS

(209) 238-3151

PHONE NUMBER

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

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

Tony Machado

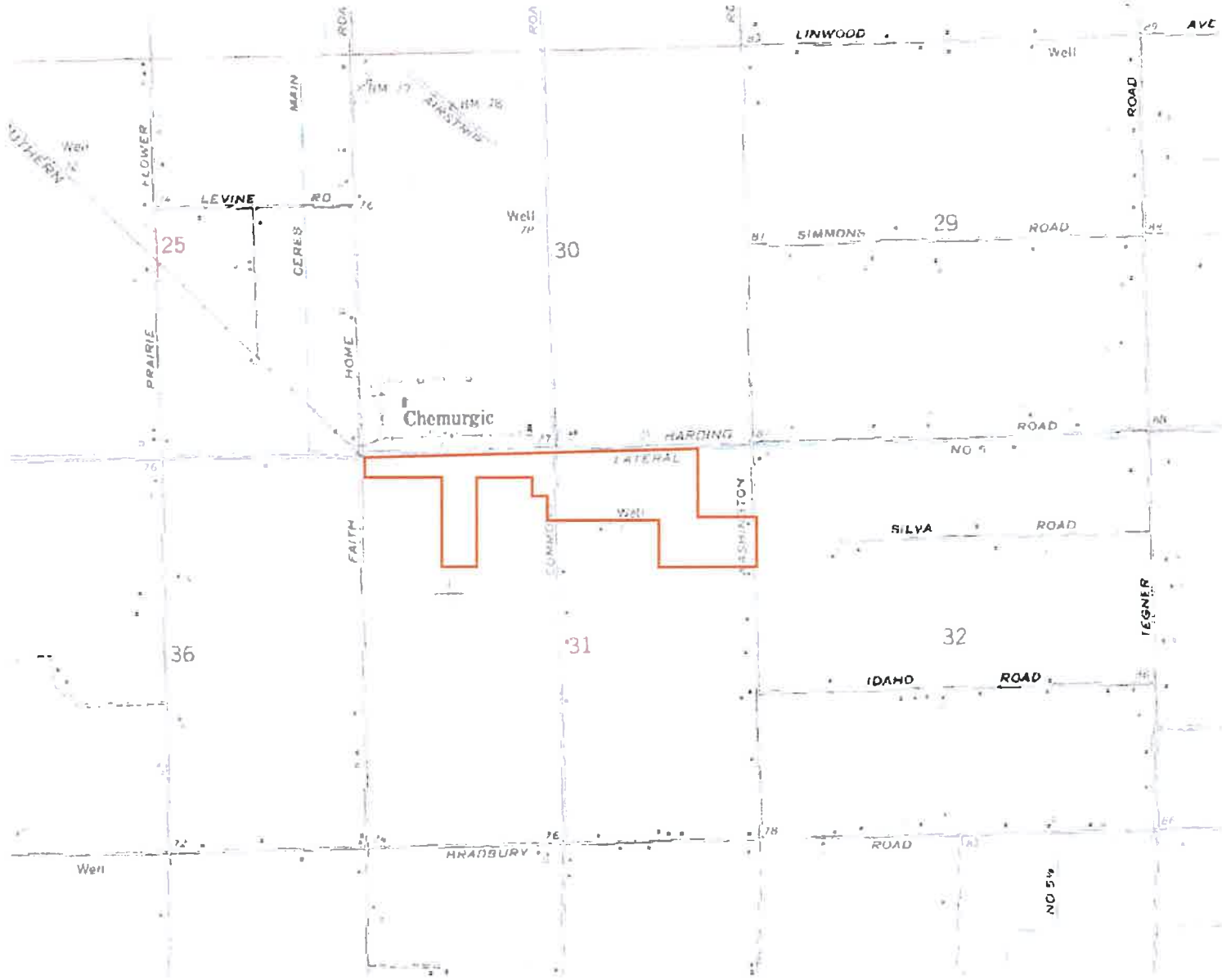
PRINT OR TYPE NAME

PRINT OR TYPE NAME

4-23-2018

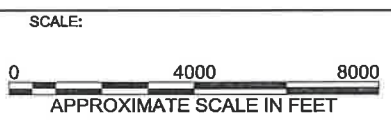
DATE

DATE



LEGEND

 Facility Boundary



COUCO CREEK DAIRY
TURLOCK, CA

FIGURE 1
TOPOGRAPHIC MAP

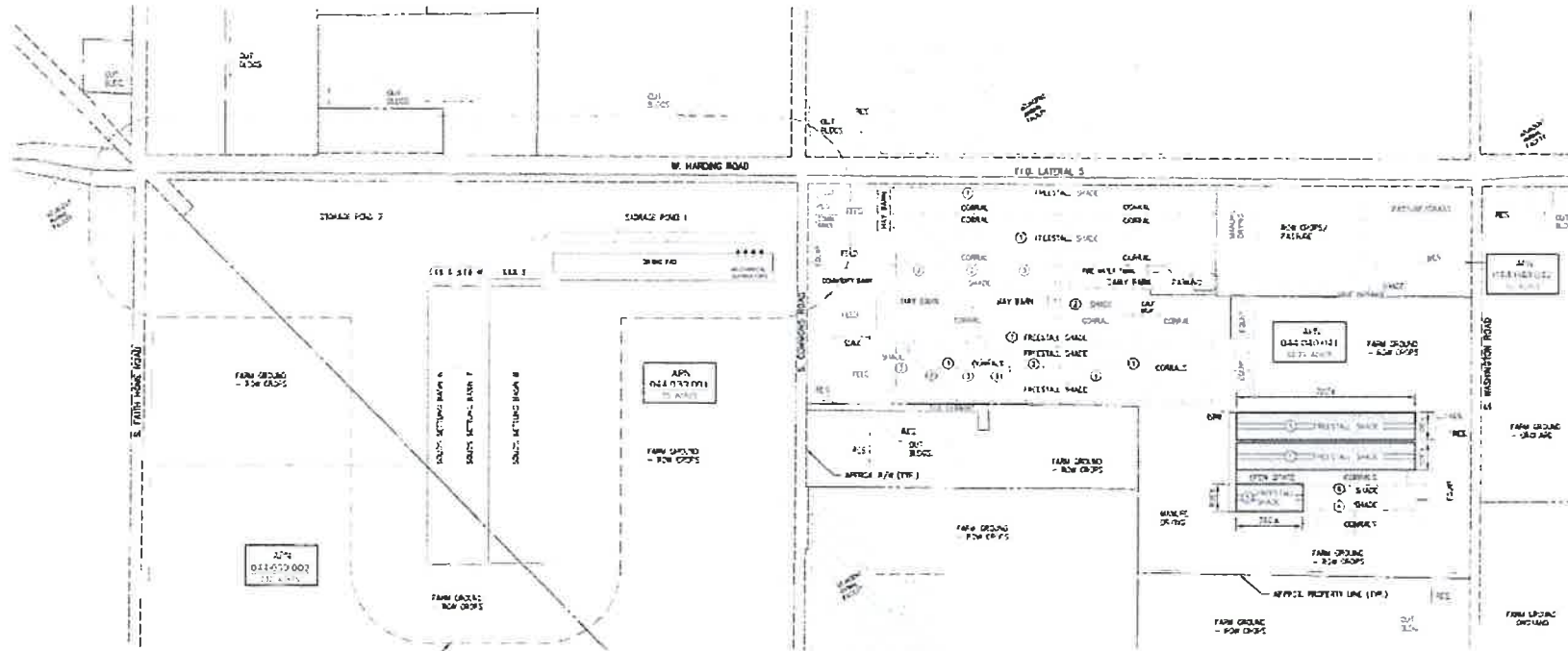
PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	5/1/14	SB	JR



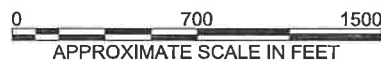
SITE LEGEND

- CITY BOUNDARY LINE
- CANALS & DRENCH
- APPROXIMATE SUB-TERRANEAN
- ① ASSESSOR'S MARK (SEE TABLE)
- APPROXIMATE PROPERTY LINE
- FENCING STR. OR CORR. / SCALING STR. OR CORR.
- ▭ PROPOSED STRUCTURE

LAND INCOME - PROPOSED		CROPPING		PLANTINGS		ANIMALS	
1	MILK BARN	FRUITAL / TREE	PLANT	400	400	200	200
2	SWF / OTHER WOODS CORN	FRUITAL / CORN	PLANT	400	400	400	400
3	WATER	FRUITAL / CORN	PLANT	400	400	400	400
4	WATER	FRUITAL / CORN	PLANT	400	400	400	400
5	WATER	FRUITAL / CORN	PLANT	400	400	400	400
TOTAL				2,000	2,000	2,000	2,000



SCALE:



COUCO CREEK DAIRY
TURLOCK, CA

FIGURE 2
PROPOSED SITE PLAN

PROJECT NO.

FRA-00

DATE:

4/12/18




















DRAWN BY:

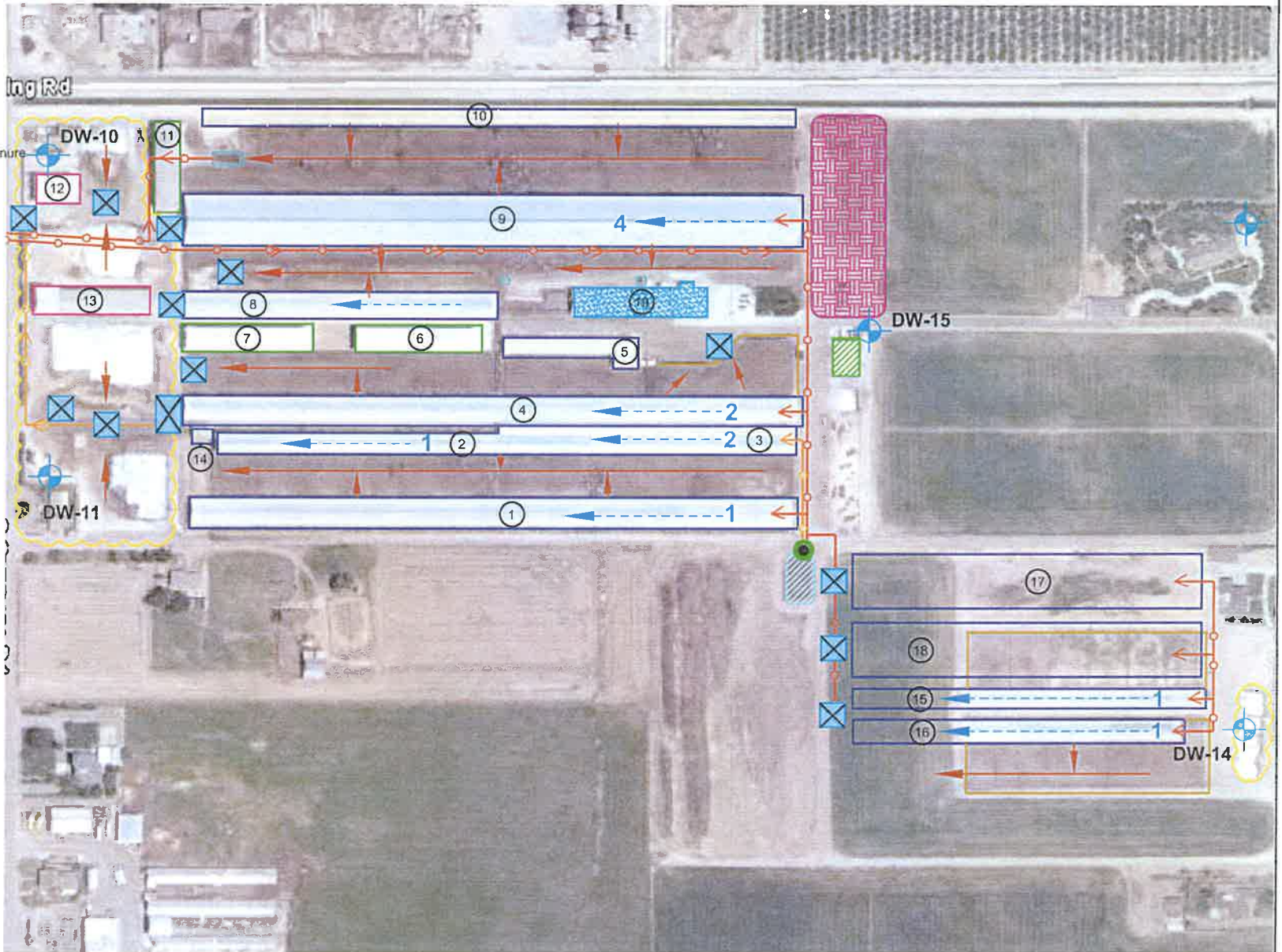
SB

APP. BY:

JR

LEGEND

-  Milk Barn
-  Animal Housing
-  Corral
-  Proposed Concrete Manure Stacking Pad
-  Commodity Barn
-  Hay Barn
-  Drain Sump
-  Shed/Shop
-  Tailwater Return Pond
-  Concrete
-  Domestic Well
-  Tailwater Pump
-  Drain
-  Feed Storage
-  Flush Lane
-  Flush Delivery Pipeline
-  Wastewater Pipeline
-  Flush Lanes
-  Drainage Flow



SCALE:



COUCO CREEK DAIRY
TURLOCK, CA

FIGURE 3A
DAIRY FACILITY

PROJECT NO.

FRA-00

DATE:

3/31/18

DRAWN BY:










SB

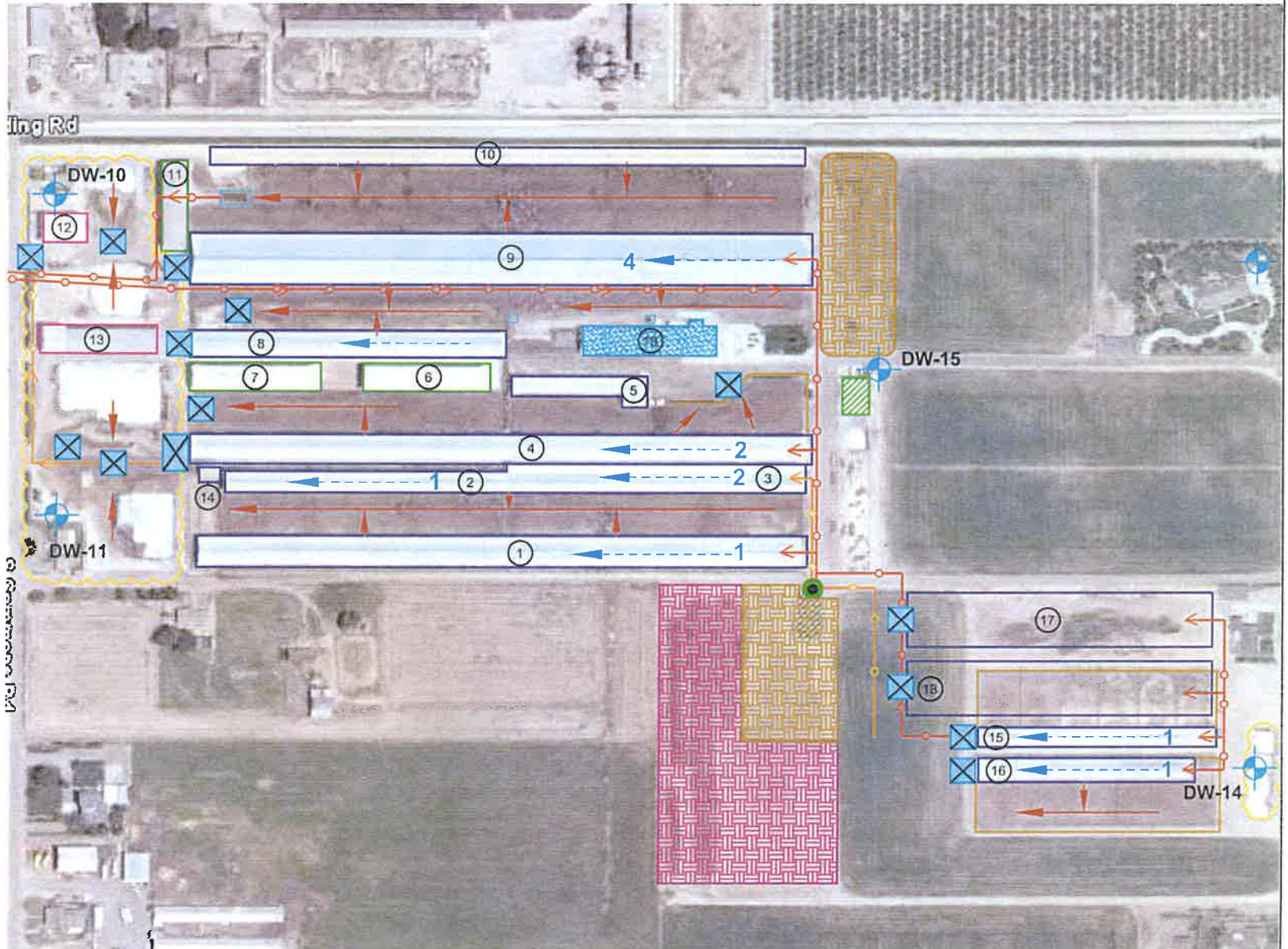
APP. BY:


JR

COUCO fields and Facility

LEGEND

-  Milk Barn
-  Animal Housing
-  Corral
-  Proposed Concrete Manure Stacking Pad
-  Earthen Manure Stacking Area
-  Commodity Barn
-  Hay Barn
-  Drain Sump
-  Shed/Shop
-  Tailwater Return Pond
-  Concrete
-  Domestic Well
-  Tailwater Pump
-  Drain
-  Feed Storage
-  Flush Lane
-  Flush Delivery Pipeline
-  Wastewater Pipeline
-  Flush Lanes
-  Drainage Flow






















SCALE:	
 <p>APPROXIMATE SCALE IN FEET</p>	
PROJECT NO.	FRA-00

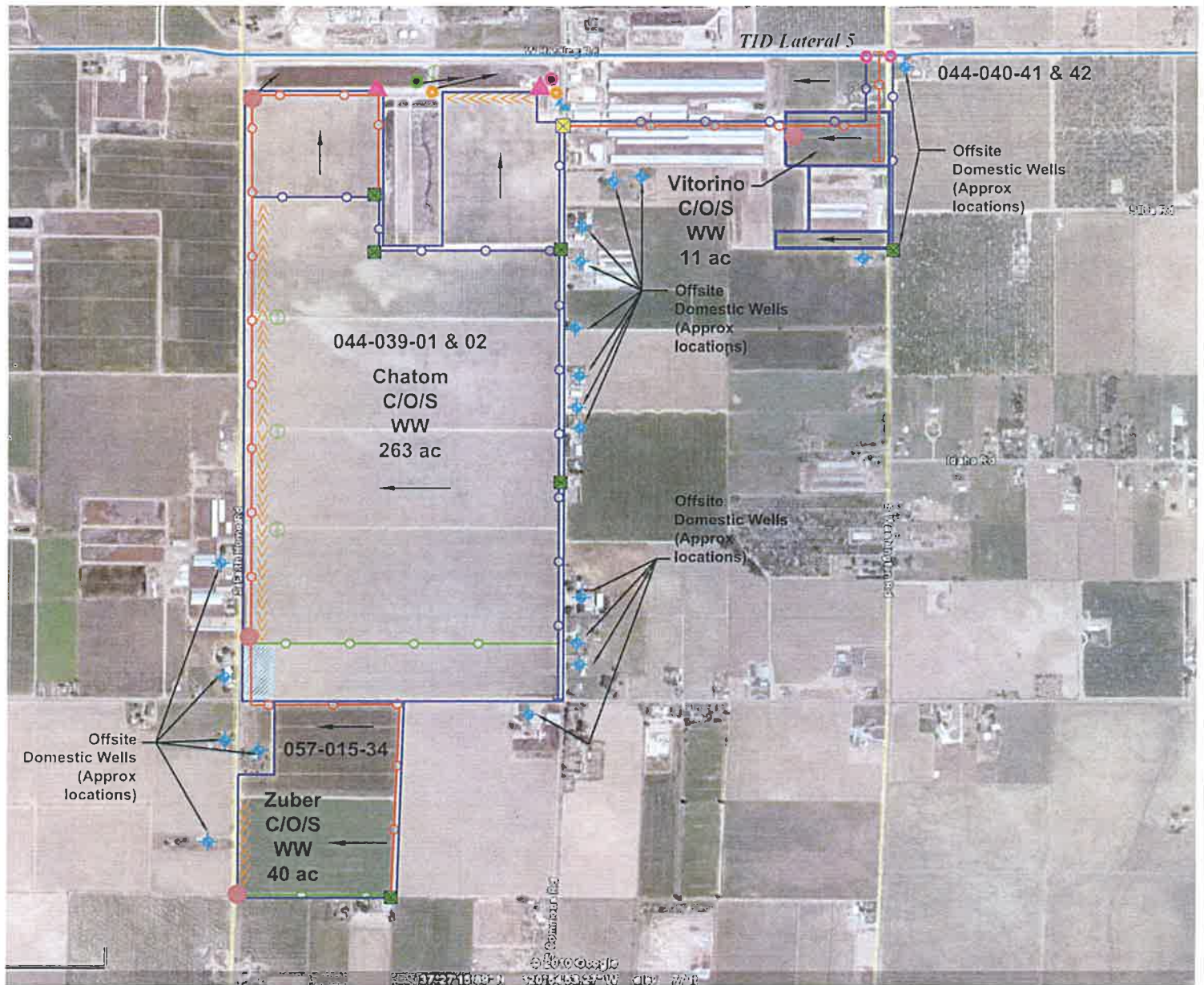
COUCO CREEK DAIRY TURLOCK, CA		
DATE:	DRAWN BY:	APP. BY:
3/31/18	SB	JR

FIGURE 3B
DAIRY FACILITY

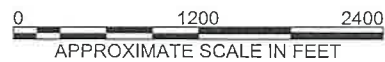
COUCO fields and Facility

LEGEND

-  Fields
-  Tailwater Pond
-  Control Box
-  Mixing Box
-  Irrigation Well
-  Domestic Well
-  TID Inlet Valve
-  Tailwater Pump
-  Discharge Pump to Pond 1
-  Overflow Pump to Pond 1
-  Mechanical Separator Pump
-  Outlet Valve
-  Tail Water
-  Crossover Pipe
-  Tail Water Return Pipeline
-  Wastewater Pipeline
-  Irrigation Pipeline
-  Irrigation Flow
-  Capped
- WW Waste Water
- C Corn
- O Oats
- S Sudan



SCALE:



COUCO CREEK DAIRY
TURLOCK, CA

FIGURE 4
DAIRY FIELDS

PROJECT NO.

FRA-00

DATE:

3/31/18

DRAWN BY:

SB

APP. BY:

JR

NUTRIENT MANAGEMENT PLAN

Couco Creek Dairy Inc.
3303 S. Washington Road
Turlock, Ca. 95380

Prepared By:



2857 Geer Road, Suite A
Turlock, California 95382

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

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY: Couco Creek Dairy Inc.

Physical address of dairy:

<u>3303 S Washington RD</u>	<u>Turlock</u>	<u>Stanislaus</u>	<u>95380</u>
Number and Street	City	County	Zip Code

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

Date facility was originally placed in operation: 06/01/1961

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

County Assessor Parcel Number(s) for dairy facility:

0044-0039-0001-0000 0044-0040-0041-0000

B. OPERATOR NAME: Machado, Tony Telephone no.: (209) 761-9322

		<u>Landline</u>	<u>Cellular</u>
--	--	-----------------	-----------------

<u>3303 S Washington RD</u>	<u>Turlock</u>	<u>CA</u>	<u>95380</u>
Mailing Address Number and Street	City	State	Zip Code

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

C. LEGAL OWNER NAME: Machado, Tony Telephone no.: (209) 761-9322

		<u>Landline</u>	<u>Cellular</u>
--	--	-----------------	-----------------

<u>3303 S Washington RD</u>	<u>Turlock</u>	<u>CA</u>	<u>95380</u>
Mailing Address Number and Street	City	State	Zip Code

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

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

		<u>Landline</u>	<u>Cellular</u>
--	--	-----------------	-----------------

Title: Technical Service Provider

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

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

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:

3,487 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	3,050	437	750	1,000	500	0
Maximum count	3,050	437	750	1,000	500	0
Avg live weight (lbs)	1,400	1,450	900	600		
Daily hours on flush	20	6	24	24	6	0

Predominant milk cow breed: Holstein

Average milk production: 72 pounds per cow per day

B. IRRIGATION SOURCES

Irrigation Source Name	Type	Nitrogen (mg/L)	Phosphorus (mg/L)	Potassium (mg/L)	Discharge Rate
Chatom Irrigation Well	Groundwater (well)	0.50			2,000 gpm
Chatom Irrigation Well	Groundwater (well)	3.50			2,000 gpm
TID Canal	Surface water (canal, river)	0.50			15 cfs
TID Canal	Surface water (canal, river)	4.15			15 cfs

C. NUTRIENT IMPORTS

Nutrient Type/Name	Quantity	Moisture	Nitrogen	Phosphorus (as P2O5)	Potassium (as K2O)
11-5-0	32.10 ton	0.1%	11.000%	5.000%	0.000%
30-0-0	16.05 ton	0.1%	30.000%	0.000%	0.000%

Total nitrogen imported: 16,675.31 lbs

Total phosphorus imported: 1,401.37 lbs

Total potassium imported: 0.00 lbs

D. NUTRIENT EXPORTS

Nutrient Type/Name	Quantity	Moisture	Nitrogen	Phosphorus (as P2O5)	Potassium (as K2O)
Fall Manure	9,000.00 ton	25.0%	2.000%	1.000%	2.000%
Spring Manure	7,500.00 ton	50.0%	1.500%	0.750%	1.500%
Spring Manure	7,500.00 ton	50.0%	1.500%	0.750%	1.500%

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

Nutrient Type/Name	Quantity	Moisture	Nitrogen	Phosphorus (as P2O5)	Potassium (as K2O)
Fall Manure	8,700.00 <i>ton</i>	25.0%	2.000%	1.000%	2.000%
Total nitrogen exported:	<u>756,000.00</u> <i>lbs</i>				
Total phosphorus exported:	<u>165,186.00</u> <i>lbs</i>				
Total potassium exported:	<u>627,480.00</u> <i>lbs</i>				

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 adsorption/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*

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

APPLICATION AREA

A. ASSESSOR PARCEL NUMBER: 0044-0039-0001-0000

Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0044-0039-0002-0000

Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0044-0040-0041-0000

Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0057-0015-0034-0000

Legal owner of parcel: Owned by Dairy

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

B. FIELD NAME: Chatom

Cropable acres: 263

Predominant soil type: Loamy sand

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

Can fresh water for irrigation purposes be delivered to the field year round? Yes No

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

Tailwater management method: Returned to retention pond

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Middle April	263
Corn, silage	Early May	Late August	263
Sudangrass, silage	Late August	Late October	263

FIELD NAME: Vitorino

Cropable acres: 11

Predominant soil type: Loamy sand

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

Can fresh water for irrigation purposes be delivered to the field year round? Yes No

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

Tailwater management method: Returned to retention pond

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Middle April	11
Corn, silage	Early May	Late August	11
Sudangrass, silage	Late August	Late October	11

FIELD NAME: Zuber

Cropable acres: 40

Predominant soil type: Loamy sand

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

Can fresh water for irrigation purposes be delivered to the field year round? Yes No

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

Tailwater management method: Returned to top of field

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Middle April	40
Corn, silage	Early May	Late August	40

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

Sudangrass, silage	Late August	Late September	40
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C. LAND APPLICATION AREA FIELDS AND PARCELS

Field name	Cropable acres	Total harvests	Parcel number
Chatom	263	3	0044-0039-00010000
			0044-0039-00020000
Vitorino	11	3	0044-0040-00410000
Zuber	40	3	0057-0015-00340000
Land application area totals	577	12	

Nutrient Management Plan Report
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 July 1, 2009 deadline

NUTRIENT BUDGET

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	80.0	11.0	95.0	80.6
<i>Nutrient source:</i> Retention pond (lagoon)					
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.6	0.0	0.0	96.0
		0.6	0.0	0.0	
In season irrigation (no fertilizer)	1	0.0	0.0	0.0	0.6
<i>Nutrient source:</i> Water only					
<i>Application method:</i> Surface					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.6	0.0	0.0	96.0
		0.6	0.0	0.0	
In season irrigation (with fertilizer)	1	106.0	17.0	98.0	108.2
<i>Nutrient source:</i> Retention pond (lagoon)					
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Chatom Irrigation Well		2.2	0.0	0.0	168.0
		2.2	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	3.5	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	186.0	28.0	193.0
Other	0.0	0.0	0.0
Atmospheric deposition	4.7		
Nutrients applied	194.1	28.0	193.0
Potential crop nutrient removal	140.0	22.4	116.2
Nutrient balance	54.1	5.6	76.8
Applied to removal ratio	1.39	1.25	1.66

Fresh water applied: 1.14 feet Total harvests: 1

Nutrient Management Plan Report
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 July 1, 2009 deadline

NUTRIENT BUDGET FOR CROP: Chatom / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Starter fertilizer at planting	1	22.0 100%	10.0 100%	0.0 0%	22.0
<i>Nutrient source:</i> Commercial fertilizer					
<i>Application method:</i> Sidedress					
Pre-irrigation prior to planting (with fertilizer)	1	80.0 66%	11.0 80%	95.0 80%	80.7
<i>Nutrient source:</i> Retention pond (lagoon)					
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.7	0.0	0.0	112.0
		0.7	0.0	0.0	
In season irrigation (no fertilizer)	3	0.0 0%	0.0 0%	0.0 0%	1.8
<i>Nutrient source:</i> Water only					
<i>Application method:</i> Surface					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.6	0.0	0.0	96.0
		0.6	0.0	0.0	
In season irrigation (with fertilizer)	3	40.0 66%	5.5 80%	47.5 80%	121.8
<i>Nutrient source:</i> Retention pond (lagoon)					
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.6	0.0	0.0	96.0
		0.6	0.0	0.0	
In season irrigation (with fertilizer)	1	30.0 100%	0.0 0%	0.0 0%	30.6
<i>Nutrient source:</i> Commercial fertilizer					
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.6	0.0	0.0	96.0
		0.6	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	5.0	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	52.0	10.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	200.0	27.5	237.5
Other	0.0	0.0	0.0
Atmospheric deposition	4.7		
Nutrients applied	261.7	37.5	237.5
Potential crop nutrient removal	192.0	36.0	158.4
Nutrient balance	69.7	1.5	79.1

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Applied to removal ratio 1.36 1.04 1.50

Fresh water applied: 3.70 feet Total harvests: 1

NUTRIENT BUDGET FOR CROP: Chatom / Sudangrass, 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)	1	0.0	0.0	0.0	0.6
<i>Nutrient source:</i> Water only		0%	0%	0%	
<i>Application method:</i> Surface					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.6	0.0	0.0	96.0
		0.6	0.0	0.0	
In season irrigation (with fertilizer)	2	50.0	7.5	60.0	101.2
<i>Nutrient source:</i> Retention pond (lagoon)		66%	80%	80%	
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.6	0.0	0.0	96.0
		0.6	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	1.8	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	100.0	15.0	120.0
Other	0.0	0.0	0.0
Atmospheric deposition	4.7		
Nutrients applied	106.5	15.0	120.0
Potential crop nutrient removal	82.5	12.8	90.0
Nutrient balance	24.0	2.3	30.0
Applied to removal ratio	1.29	1.18	1.33

Fresh water applied: 1.36 feet Total harvests: 1

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
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NUTRIENT BUDGET FOR CROP (CONTINUED): Vitorino / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	80.0	11.0	95.0	81.2
<i>Nutrient source:</i> Retention pond (lagoon)					
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		1.2	0.0	0.0	8.0
		1.2	0.0	0.0	
In season irrigation (no fertilizer)	1	0.0	0.0	0.0	0.9
<i>Nutrient source:</i> Water only					
<i>Application method:</i> Surface					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.9	0.0	0.0	6.0
		0.9	0.0	0.0	
In season irrigation (with fertilizer)	1	106.0	17.0	98.0	111.7
<i>Nutrient source:</i> Retention pond (lagoon)					
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Chatom Irrigation Well		5.7	0.0	0.0	18.0
		5.7	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	7.9	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	186.0	28.0	193.0
Other	0.0	0.0	0.0
Atmospheric deposition	4.7		
Nutrients applied	198.5	28.0	193.0
Potential crop nutrient removal	140.0	22.4	116.2
Nutrient balance	58.5	5.6	76.8
Applied to removal ratio	1.42	1.25	1.66

Fresh water applied: 2.18 feet Total harvests: 1

NUTRIENT BUDGET FOR CROP: Vitorino / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
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NUTRIENT BUDGET FOR CROP (CONTINUED): Vitorino / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Starter fertilizer at planting	1	22.0	10.0	0.0	22.0
<i>Nutrient source:</i> Commercial fertilizer		100%	100%	0%	
<i>Application method:</i> Sidedress					
Pre-irrigation prior to planting (with fertilizer)	1	80.0	11.0	95.0	81.5
<i>Nutrient source:</i> Retention pond (lagoon)		66%	80%	80%	
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		1.5	0.0	0.0	10.0
		1.5	0.0	0.0	
In season irrigation (no fertilizer)	3	0.0	0.0	0.0	2.8
<i>Nutrient source:</i> Water only		0%	0%	0%	
<i>Application method:</i> Surface					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.9	0.0	0.0	6.0
		0.9	0.0	0.0	
In season irrigation (with fertilizer)	3	40.0	5.5	47.5	122.8
<i>Nutrient source:</i> Retention pond (lagoon)		66%	80%	80%	
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.9	0.0	0.0	6.0
		0.9	0.0	0.0	
In season irrigation (with fertilizer)	1	30.0	0.0	0.0	30.9
<i>Nutrient source:</i> Commercial fertilizer		100%	0%	0%	
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.9	0.0	0.0	6.0
		0.9	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	8.0	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	52.0	10.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	200.0	27.5	237.5
Other	0.0	0.0	0.0
Atmospheric deposition	4.7		
Nutrients applied	264.6	37.5	237.5
Potential crop nutrient removal	192.0	36.0	158.4
Nutrient balance	72.6	1.5	79.1

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Applied to removal ratio 1.38 1.04 1.50

Fresh water applied: 5.86 feet Total harvests: 1

NUTRIENT BUDGET FOR CROP: Vitorino / Sudangrass, 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)	1	0.0	0.0	0.0	1.2
<i>Nutrient source:</i> Water only		0%	0%	0%	
<i>Application method:</i> Surface					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		1.2	0.0	0.0	8.0
		1.2	0.0	0.0	
In season irrigation (with fertilizer)	2	50.0	7.5	60.0	102.5
<i>Nutrient source:</i> Retention pond (lagoon)		66%	80%	80%	
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		1.2	0.0	0.0	8.0
		1.2	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	3.7	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	100.0	15.0	120.0
Other	0.0	0.0	0.0
Atmospheric deposition	4.7		
Nutrients applied	108.3	15.0	120.0
Potential crop nutrient removal	82.5	12.8	90.0
Nutrient balance	25.8	2.3	30.0
Applied to removal ratio	1.31	1.18	1.33

Fresh water applied: 2.70 feet Total harvests: 1

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
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NUTRIENT BUDGET FOR CROP (CONTINUED): Zuber / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	80.0	11.0	95.0	80.7
<i>Nutrient source:</i> Retention pond (lagoon)					
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.7	0.0	0.0	16.0
		0.7	0.0	0.0	
In season irrigation (no fertilizer)	1	0.0	0.0	0.0	0.5
<i>Nutrient source:</i> Water only					
<i>Application method:</i> Surface					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal		0.5	0.0	0.0	12.0
		0.5	0.0	0.0	
In season irrigation (with fertilizer)	1	106.0	17.0	98.0	109.2
<i>Nutrient source:</i> Retention pond (lagoon)					
<i>Application method:</i> Pipeline					
Irrigation Source		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
Chatom Irrigation Well		3.2	0.0	0.0	36.0
		3.2	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	4.3	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	186.0	28.0	193.0
Other	0.0	0.0	0.0
Atmospheric deposition	4.7		
Nutrients applied	195.0	28.0	193.0
Potential crop nutrient removal	140.0	22.4	116.2
Nutrient balance	55.0	5.6	76.8
Applied to removal ratio	1.39	1.25	1.66

Fresh water applied: 1.20 feet Total harvests: 1

NUTRIENT BUDGET FOR CROP: Zuber / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
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NUTRIENT BUDGET FOR CROP (CONTINUED): Zuber / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Starter fertilizer at planting	1	22.0	10.0	0.0	22.0
<i>Nutrient source:</i> Commercial fertilizer		100%	100%	0%	
<i>Application method:</i> Sidedress					
Pre-irrigation prior to planting (with fertilizer)	1	80.0	11.0	95.0	80.8
<i>Nutrient source:</i> Retention pond (lagoon)		66%	80%	80%	
<i>Application method:</i> Pipeline					
Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)	
TID Canal	0.8	0.0	0.0	20.0	
	0.8	0.0	0.0		
In season irrigation (no fertilizer)	3	0.0	0.0	0.0	1.8
<i>Nutrient source:</i> Water only		0%	0%	0%	
<i>Application method:</i> Surface					
Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)	
TID Canal	0.6	0.0	0.0	14.0	
	0.6	0.0	0.0		
In season irrigation (with fertilizer)	3	40.0	5.5	47.5	121.8
<i>Nutrient source:</i> Retention pond (lagoon)		66%	80%	80%	
<i>Application method:</i> Pipeline					
Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)	
TID Canal	0.6	0.0	0.0	14.0	
	0.6	0.0	0.0		
In season irrigation (with fertilizer)	1	30.0	0.0	0.0	30.6
<i>Nutrient source:</i> Commercial fertilizer		100%	0%	0%	
<i>Application method:</i> Pipeline					
Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)	
TID Canal	0.6	0.0	0.0	14.0	
	0.6	0.0	0.0		

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	5.0	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	52.0	10.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	200.0	27.5	237.5
Other	0.0	0.0	0.0
Atmospheric deposition	4.7		
Nutrients applied	261.6	37.5	237.5
Potential crop nutrient removal	192.0	36.0	158.4
Nutrient balance	69.6	1.5	79.1

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Applied to removal ratio 1.36 1.04 1.50

Fresh water applied: 3.66 feet Total harvests: 1

NUTRIENT BUDGET FOR CROP: Zuber / Sudangrass, 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)	1	0.0	0.0	0.0	0.7
<i>Nutrient source:</i> Water only		0%	0%	0%	
<i>Application method:</i> Surface					
<i>Irrigation Source</i>		<i>N (lbs/acre)</i>	<i>P (lbs/acre)</i>	<i>K (lbs/acre)</i>	<i>Runtime (hrs)</i>
TID Canal		0.7	0.0	0.0	16.0
		0.7	0.0	0.0	
In season irrigation (with fertilizer)	2	50.0	7.5	60.0	101.3
<i>Nutrient source:</i> Retention pond (lagoon)		66%	80%	80%	
<i>Application method:</i> Pipeline					
<i>Irrigation Source</i>		<i>N (lbs/acre)</i>	<i>P (lbs/acre)</i>	<i>K (lbs/acre)</i>	<i>Runtime (hrs)</i>
TID Canal		0.7	0.0	0.0	16.0
		0.7	0.0	0.0	

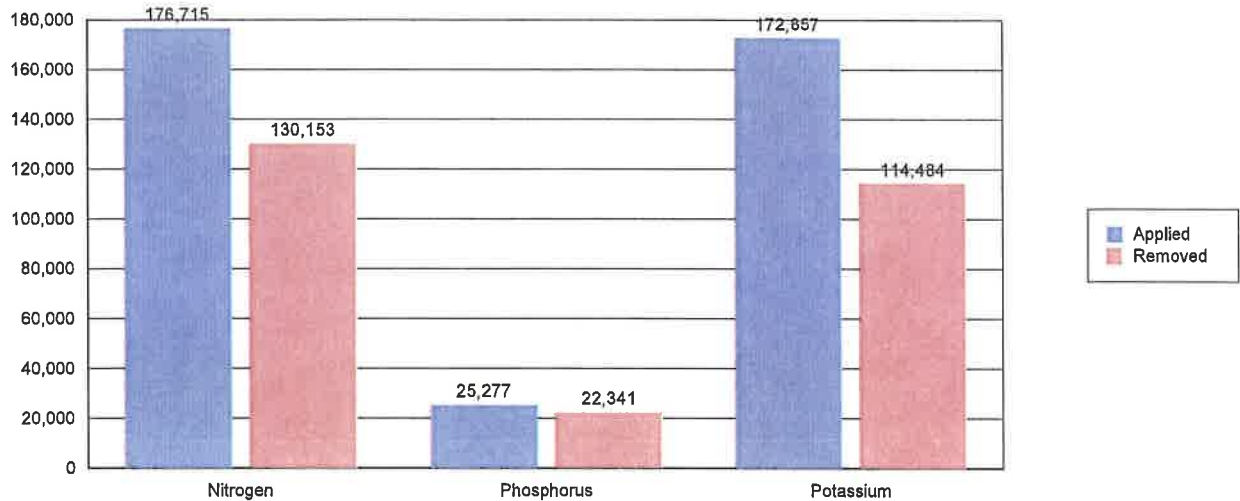
	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	2.0	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	100.0	15.0	120.0
Other	0.0	0.0	0.0
Atmospheric deposition	4.7		
Nutrients applied	106.7	15.0	120.0
Potential crop nutrient removal	82.5	12.8	90.0
Nutrient balance	24.2	2.3	30.0
Applied to removal ratio	1.29	1.18	1.33

Fresh water applied: 1.49 feet Total harvests: 1

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NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

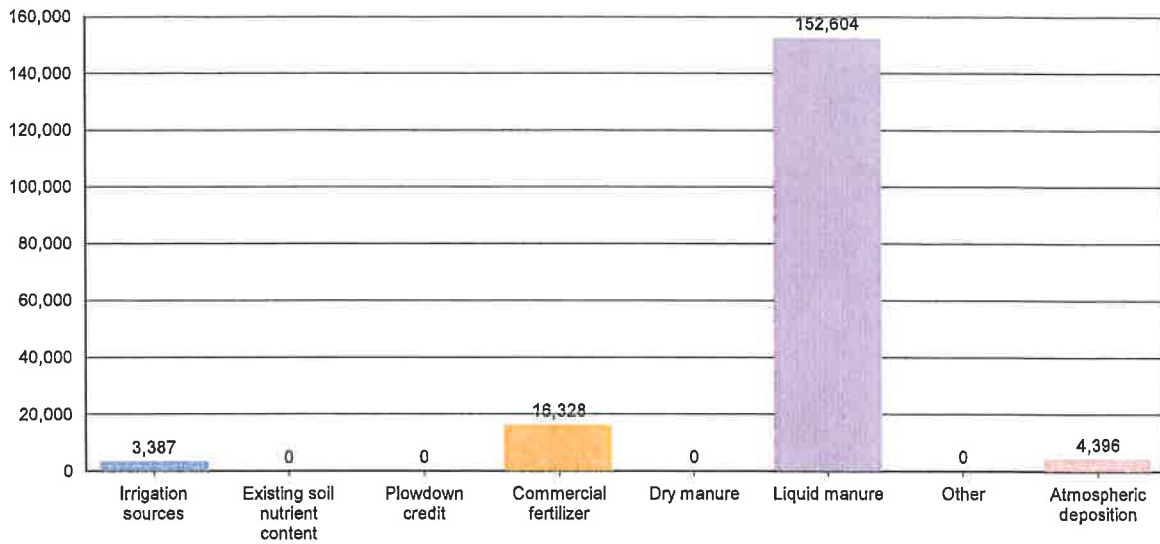
A. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL POTENTIAL



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	3,387.2	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	16,328.0	3,140.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	152,604.0	22,137.0	172,857.0
Other	0.0	0.0	0.0
Atmospheric deposition	4,396.0		
Nutrients applied to all crops	176,715.2	25,277.0	172,857.0
Potential crop nutrient removal	130,153.0	22,341.1	114,484.4
Nutrient balance	46,562.2	2,935.9	58,372.6
Applied to removal ratio	1.36	1.13	1.51

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B. POUNDS OF NITROGEN APPLIED BY NUTRIENT SOURCE



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	3,387.2	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	16,328.0	3,140.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	152,604.0	22,137.0	172,857.0
Other	0.0	0.0	0.0
Atmospheric deposition	4,396.0		
Nutrients applied to all crops	176,715.2	25,277.0	172,857.0
Potential crop nutrient removal	130,153.0	22,341.1	114,484.4
Nutrient balance	46,562.2	2,935.9	58,372.6
Applied to removal ratio	1.36	1.13	1.51

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NUTRIENT BALANCE

A. WHOLE FARM BALANCE

	Total N (lbs)	Total P (lbs)	Total K (lbs)
Nutrients in storage from herd*			
Daily gross	3,571.6	590.0	1,611.3
Annual gross	1,303,647.0	215,332.6	588,110.8
Net to pond storage after ammonia losses (30% loss applied)	736,837.7	176,933.1	490,092.4
Net to drylot storage after ammonia losses (30% loss applied)	175,715.3	38,399.5	312,319.1
Net in storage (30% loss applied)	912,552.9	215,332.6	802,411.5
Irrigation sources	3,387.2	0.0	0.0
Atmospheric deposition	4,396.0		
Imports	16,675.3	1,401.4	0.0
Exports	756,000.0	165,186.0	627,480.0
Potential crop nutrient removal	130,153.0	22,341.1	114,484.4
Nutrient balance	50,858.4	29,206.8	60,447.1
Nutrient balance ratio	1.39	2.31	1.53

* Potassium excretion from milk cows and dry cows only.

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SAMPLING AND ANALYSIS PLAN

A. MANURE SAMPLING AND ANALYSIS PLAN

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

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A. MANURE SAMPLING AND ANALYSIS PLAN (CONTINUED)

Frequency	Sampling Methods	Source	Minimum data collection requirements	
			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.	Separator solids Corral solids Settling basin solids	None required	Total nitrogen, total phosphorus, total potassium, and percent moisture
Once every two years (biennially)	For each manure source, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Separator Solids Corral solids Settling basin solids	None required	General minerals, including: calcium, magnesium, sodium, sulfate, chloride Fixed solids (ash)
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.	Separator solids Corral solids Settling basin solids	Date exported and total weight (tons) exported	Percent moisture

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A. MANURE SAMPLING AND ANALYSIS PLAN (CONTINUED)

Frequency	Sampling Methods	Source	Minimum data collection requirements	
			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.	Separator solids Corral solids Settling basin solids	Date applied and total weight (tons) applied	Percent moisture

B. PROCESS WASTEWATER SAMPLING AND ANALYSIS PLAN

Frequency	Sampling Methods	Source	Minimum data collection requirements	
			Field Analytes	Lab Analytes
Anually	A composite or grab sample prior to blending with irrigation water per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Pond 1	None required	pH, total dissolved solids, electrical conductivity, nitrate-nitrogen, ammonion-nitrogen, total Kjeldahl nitrogen, total phosphorus, and total potassium
Once every two years (biennially)	For each pond, a composite or grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Pond 1	None required	General minerals, including: calcium, magnesium, sodium, bicarbonate, carbonate, sulfite, and chloride

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

B. PROCESS WASTEWATER SAMPLING AND ANALYSIS PLAN (CONTINUED)

Frequency	Sampling Methods	Source	Minimum data collection requirements	
			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.	Pond 1	Date applied and volume (gallons or acre-inches) applied	None required
Quarterly during one application event	For field measurement: For each pond, a composite or grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected. For laboratory analyses: For each pond, a composite or grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Pond 1	Date applied and electrical conductivity	Nitrate-nitrogen (only when pond is aerated), un-ionized ammonia-nitrogen, total Kjeldahl nitrogen, total phosphorus, total potassium, and total dissolved solids

C. SOIL SAMPLING AND ANALYSIS PLAN

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

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

C. SOIL SAMPLING AND ANALYSIS PLAN (CONTINUED)

Frequency	Sampling Methods	Source	Minimum data collection requirements	
			Field Analytes	Lab Analytes
Once every five years for each land application area (may be distributed over a 5-year period by sampling 20% of the land application areas annually)	For each field, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Chatom Field - 263 ac. Vitorino Field - 18ac. Zuber Field - 40ac.	None required	Soluble phosphorus
Spring pre-plant for each crop	For each field, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Chatom Field - 263 ac. Vitorino Field - 18ac. Zuber Field - 40ac.	None required	0 to 1 foot: Nitrate-nitrogen and organic matter 1 to 2 foot: Nitrate-nitrogen

D. PLANT TISSUE SAMPLING AND ANALYSIS PLAN

Frequency	Sampling Methods	Source	Minimum data collection requirements	
			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.	Chatom Field - Oat/Corn/Sudan Silage Vitorino Field - Oat/Corn/Sudan Silage Zuber Field - Oat/Corn/Sudan Silage	Date harvested and total weight (tons) of harvested material removed from each land application area	Percent wet weight of harvested plant removed Laboratory analyses for total nitrogen, total phosphorus, total potassium (expressed on a dry weight basis), fixed solids (ash), and percent moisture

E. IRRIGATION WATER SAMPLING AND ANALYSIS PLAN

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

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

E. IRRIGATION WATER SAMPLING AND ANALYSIS PLAN (CONTINUED)

Frequency	Sampling Methods	Source	Minimum data collection requirements	
			Field Analytes	Lab Analytes
One irrigation event during each irrigation season during actual irrigation events – for each irrigation water source (well and canal)	For each irrigation source, a grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected. In lieu of sampling the irrigation water, the Discharger may provide equivalent data from the local irrigation district.	TiD Canal Chatom Well	None required	Electrical conductivity, total dissolved solids, and total nitrogen
Each fresh water irrigation event for each land application area	TiD Canal - flow rate multiplied by runtime. Chatom Well - flow rate multiplied by runtime.	TiD Canal Chatom Well	Date applied and volume (gallons or acre-inches) applied	None required

F. GROUNDWATER MONITORING SAMPLING AND ANALYSIS PLAN

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

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

NUTRIENT MANAGEMENT PLAN REVIEW

A. NUTRIENT MANAGEMENT PLAN REVIEW

Person who created the NMP:	<u>Ramos, Joe</u>	<i>See above for contact information.</i>
Date the NMP was drafted:	<u>05/10/2014</u>	
Person who approved the final NMP:	<u>Ramos, Joe</u>	<i>See above for contact information.</i>
Date of NMP implementation:	<u>05/10/2014</u>	

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

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: Figure 4

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: Not Applicable

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: Figure 4

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: Couco Creek Dairy Inc.

Physical address of dairy:

3303 S Washington RD

Turlock

Stanislaus

95380

Physical Address Number and Street

City

County

Zip Code

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

B. DOCUMENTATION OF QUALIFICATIONS AND PLAN DEVELOPMENT

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

Technical Service Provider

TITLE/QUALIFICATIONS OF CERTIFIED NUTRIENT MANAGEMENT SPECIALIST


SIGNATURE OF TRAINED PROFESSIONAL

4/2/18
DATE

Joe Ramos

PRINT OR TYPE NAME

2857 Geer RD, STE A; Turlock, CA 95382

MAILING ADDRESS

(209) 250-2471

PHONE NUMBER

C. OWNER AND/OR OPERATOR CERTIFICATION

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


SIGNATURE OF OWNER OF FACILITY

SIGNATURE OF OPERATOR OF FACILITY

Tony Machado

PRINT OR TYPE NAME

PRINT OR TYPE NAME

4-23-2018
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: Couco Creek Dairy Inc.

Physical address of dairy:

3303 S Washington RD
Number and Street

Turlock
City

Stanislaus
County

95380
Zip Code

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

B. DOCUMENTATION OF QUALIFICATIONS AND PLAN DEVELOPMENT

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

Technical Service Provider

TITLE/QUALIFICATIONS OF CERTIFIED NUTRIENT MANAGEMENT SPECIALIST

SIGNATURE OF TRAINED PROFESSIONAL

4/2/18
/DATE

Joe Ramos

PRINT OR TYPE NAME

2857 Geer RD, STE A; Turlock, CA 95382

MAILING ADDRESS

(209) 250-2471

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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

Tony Machado

PRINT OR TYPE NAME

PRINT OR TYPE NAME

4-23-2018
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: Couco Creek Dairy Inc.

<u>3303 S Washington RD</u>	<u>Turlock</u>	<u>Stanislaus</u>	<u>95380</u>
Number and Street	City	County	Zip Code

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

Operator name: _____ Telephone no.: _____
Landline Cellular

_____	_____	_____	_____
Mailing Address Number and Street	City	State	Zip Code

Legal owner name: Machado, Tony Telephone no.: _____
Landline Cellular (209) 761-9322

<u>3303 S Washington RD</u>	<u>Turlock</u>	<u>CA</u>	<u>95380</u>
Mailing Address Number and Street	City	State	Zip Code

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

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

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

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

Tony Machado

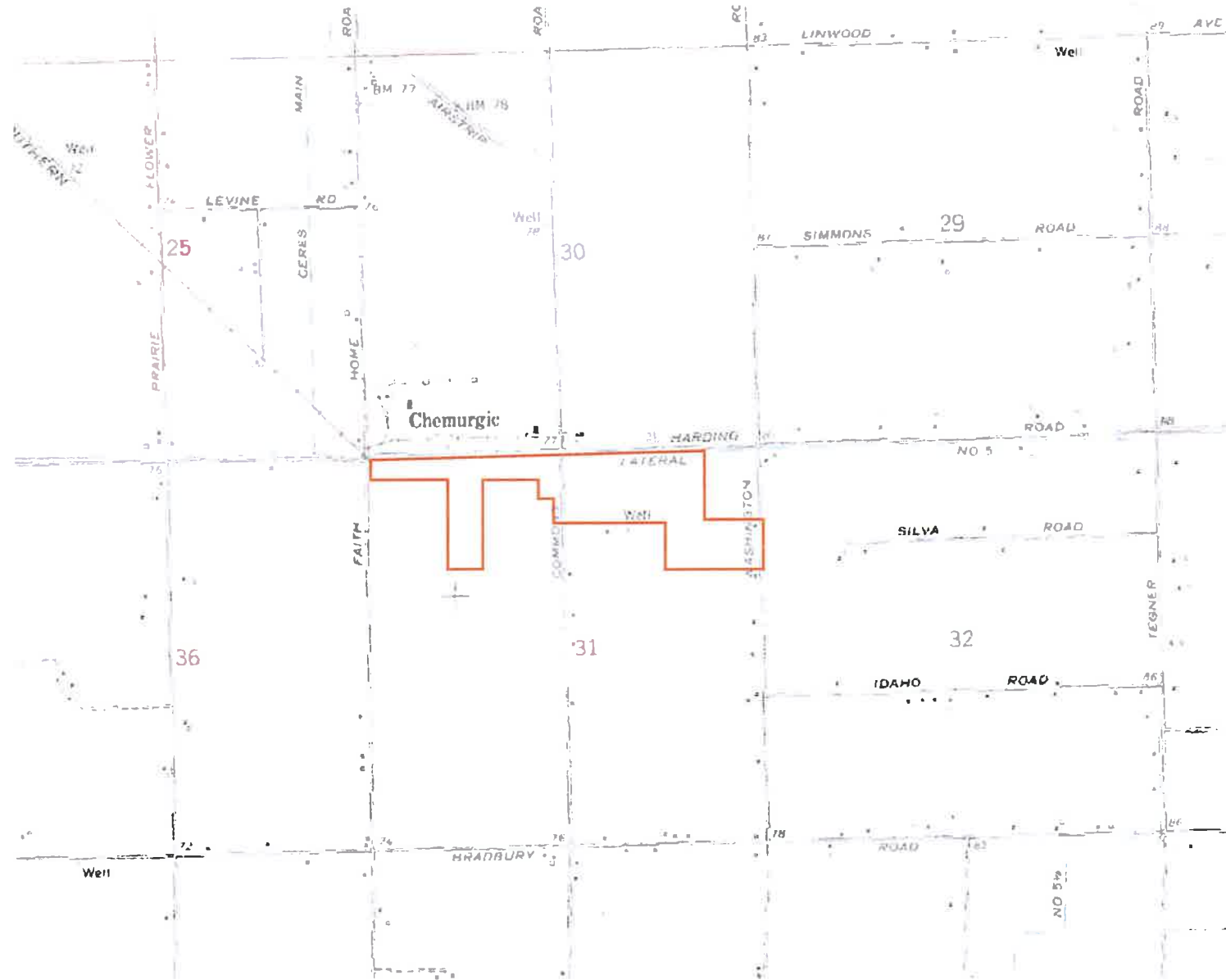
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4-23-2018

DATE

DATE

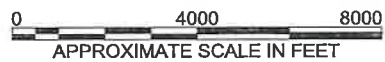


LEGEND

 Facility Boundary



SCALE:



COUCO CREEK DAIRY
TURLOCK, CA

FIGURE 1
TOPOGRAPHIC MAP

PROJECT NO.

FRA-00

DATE:

5/1/14

DRAWN BY:

SB

APP. BY:

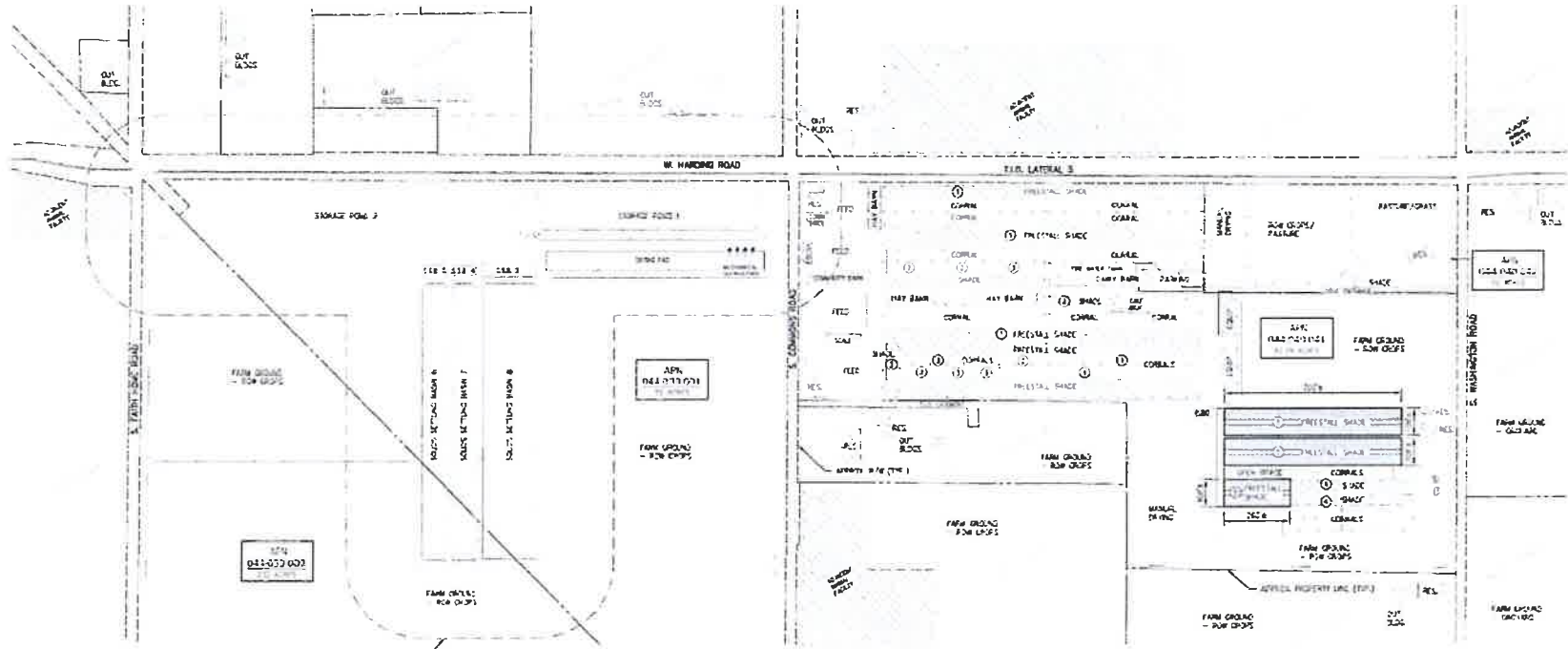
JR



SITE LEGEND

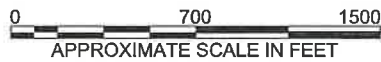
---	SITE BOUNDARY LINE	---	IMPROVED PROPERTY LINE
---	CONCRETE STAKES	---	EXISTING STRUCTURE /
---	APPROXIMATE ROAD (IF ANY)	---	ACADEMIC ZONING MAP
Ⓢ	NON-ACER LAKE (LIFE TABLE)	---	PROPOSED STRUCTURE

FIELD NOISE - PROPOSED		RECOMMENDATION	ANNUAL	1
1	WALL FORM	PRESTAL / EXPOSED CON	FLUSH	80%
2	CON / TRAIL MIXES CON	PRESTAL / CONCRETE / EXPOSED CON	FLUSH	80%
3	REPAIRS	PRESTAL / CONCRETE / EXPOSED CON	FLUSH	80%
4	REPAIRS	CONCRETE	FLUSH	80%
5	REPAIRS	PRESTAL / NO EXPOSURE CON	FLUSH	15%
			TOTAL	527



Ag Services, Inc.

SCALE:



COUCO CREEK DAIRY
TURLOCK, CA

FIGURE 2
PROPOSED SITE PLAN

PROJECT NO.

FRA-00

DATE:

4/12/18







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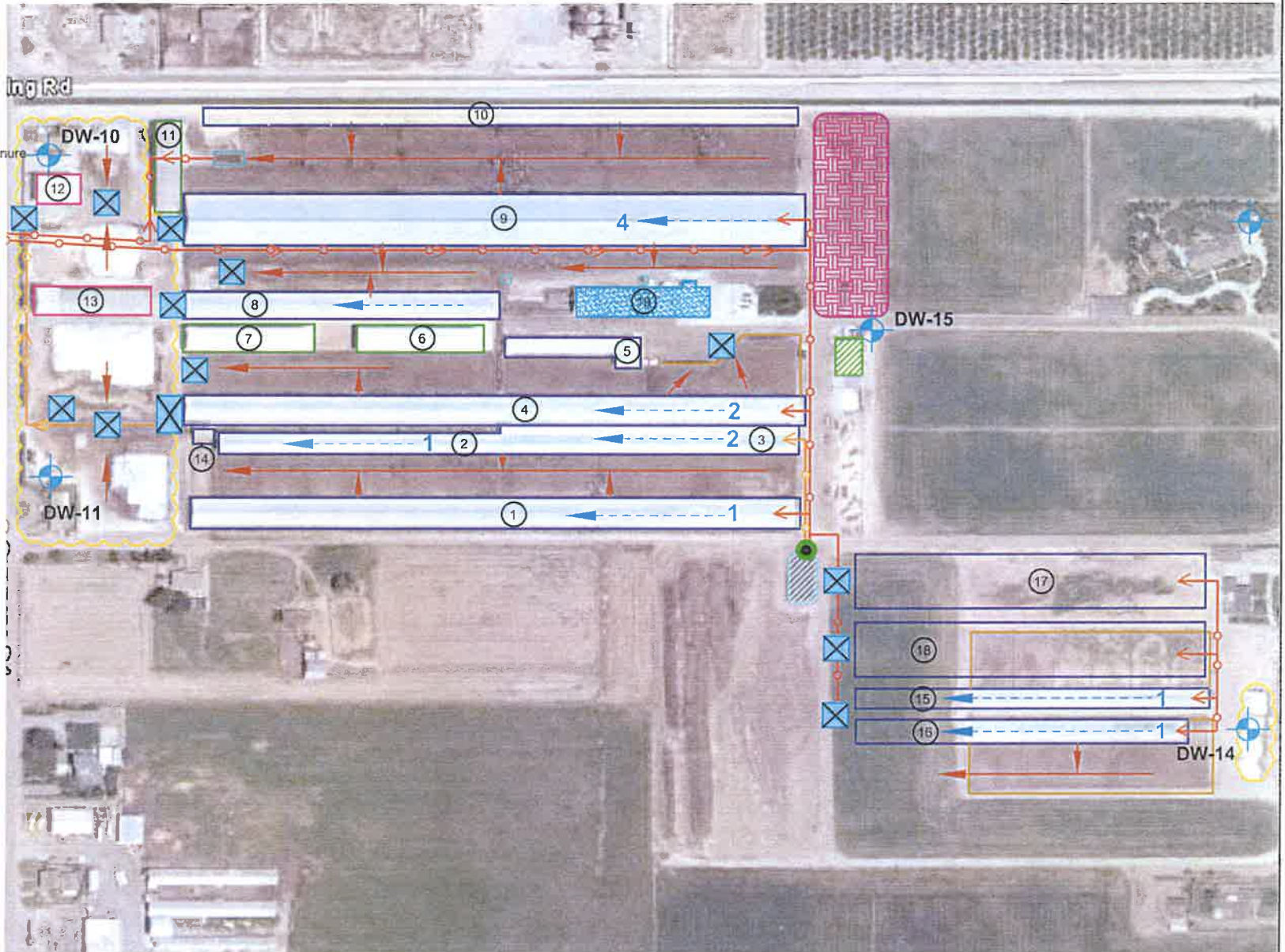
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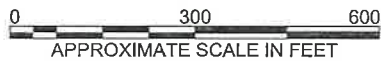
JR

LEGEND

-  Milk Barn
-  Animal Housing
-  Corral
-  Proposed Concrete Manure Stacking Pad
-  Commodity Barn
-  Hay Barn
-  Drain Sump
-  Shed/Shop
-  Tailwater Return Pond
-  Concrete
-  Domestic Well
-  Tailwater Pump
-  Drain
-  Feed Storage
-  Flush Lane
-  Flush Delivery Pipeline
-  Wastewater Pipeline
-  Flush Lanes
-  Drainage Flow



SCALE:



COUCO CREEK DAIRY
TURLOCK, CA

FIGURE 3A
DAIRY FACILITY

PROJECT NO.

FRA-00

DATE:

3/31/18





















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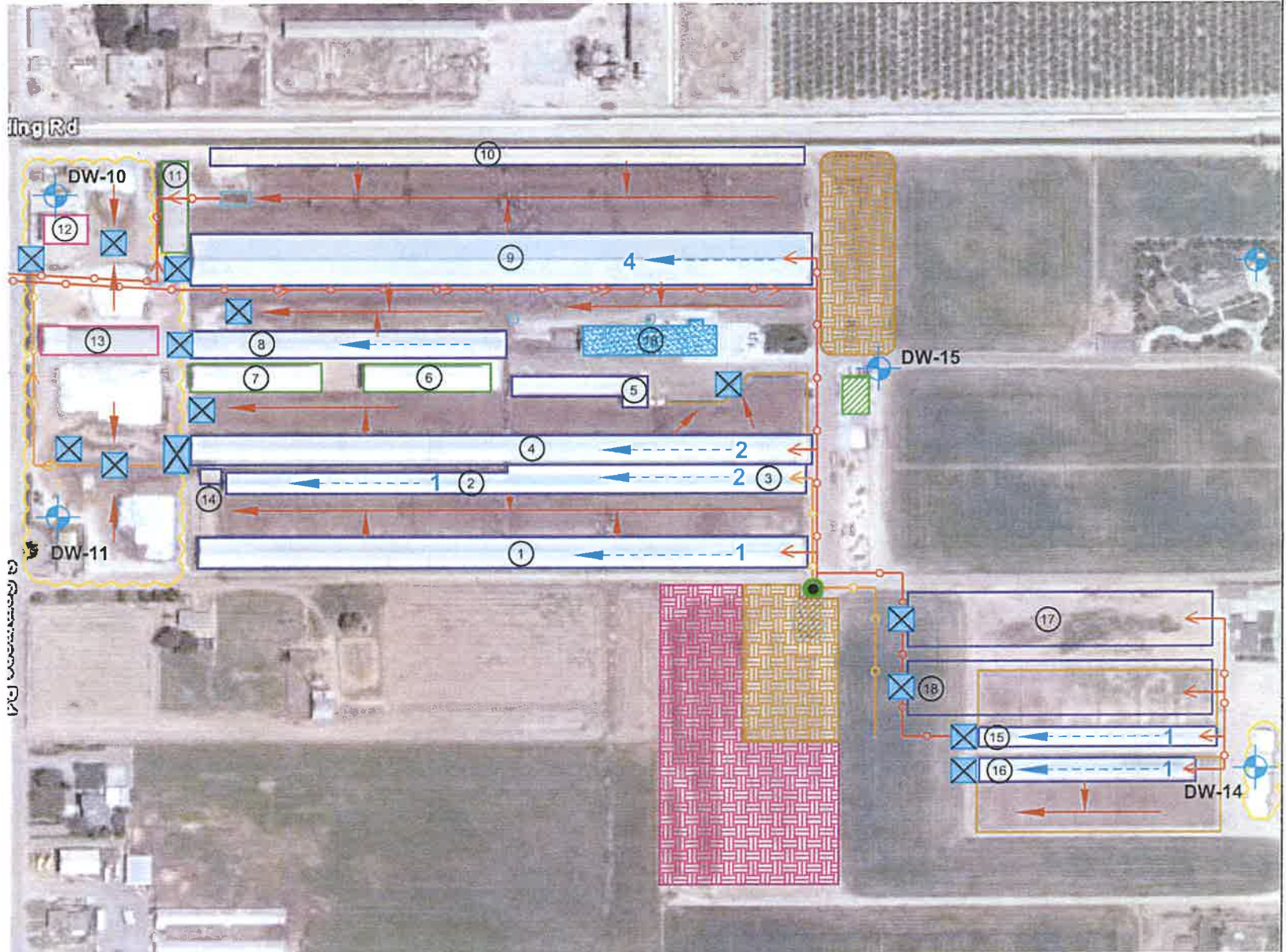
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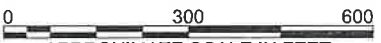
APP. BY:

JR

LEGEND

-  Milk Barn
-  Animal Housing
-  Corral
-  Proposed Concrete Manure Stacking Pad
-  Earthen Manure Stacking Area
-  Commodity Barn
-  Hay Barn
-  Drain Sump
-  Shed/Shop
-  Tailwater Return Pond
-  Concrete
-  Domestic Well
-  Tailwater Pump
-  Drain
-  Feed Storage
-  Flush Lane
-  Flush Delivery Pipeline
-  Wastewater Pipeline
-  Flush Lanes
-  Drainage Flow






















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PROJECT NO.	FRA-00

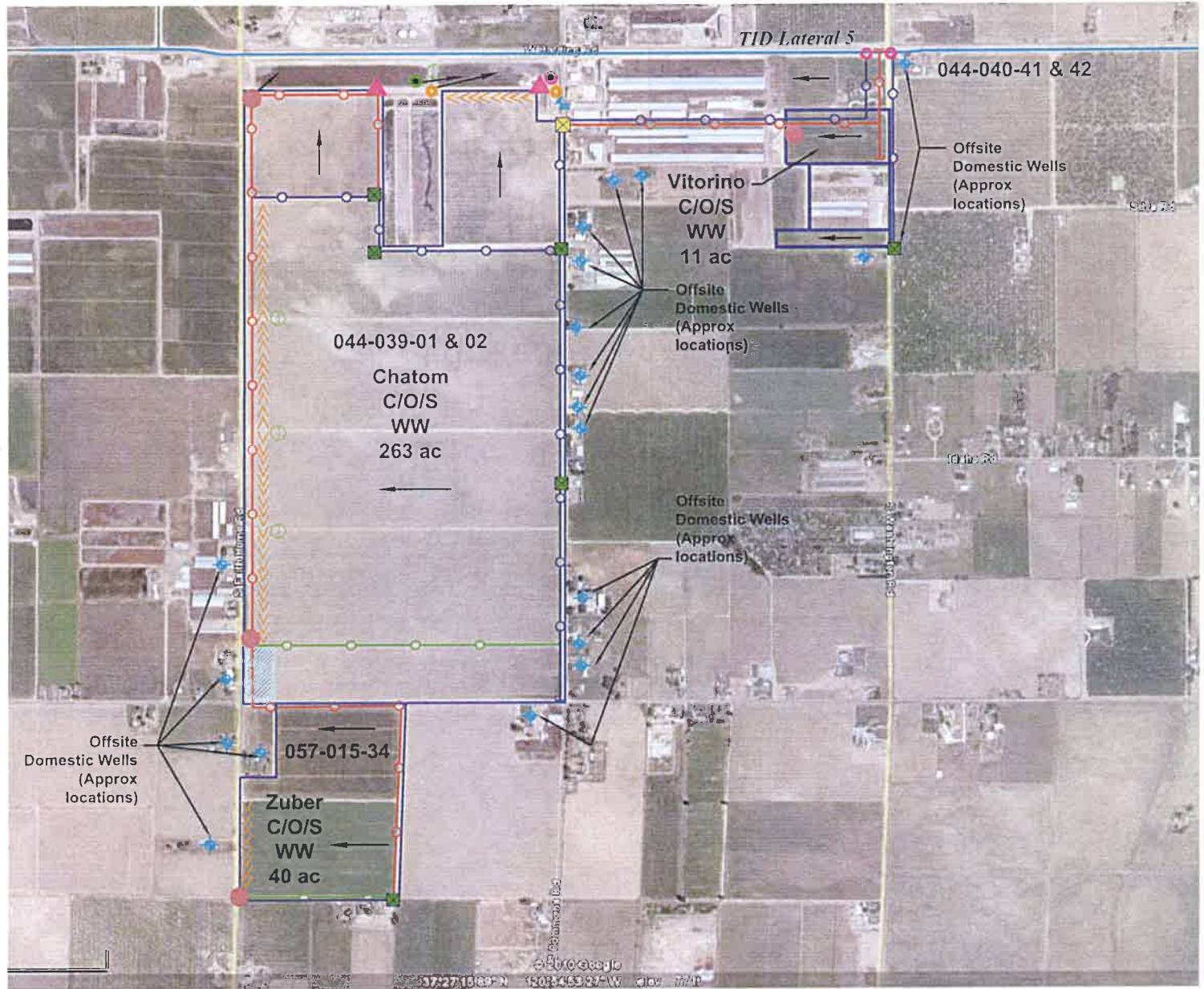
COUCO CREEK DAIRY TURLOCK, CA		
DATE:	DRAWN BY:	APP. BY:
3/31/18	SB	JR

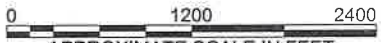
FIGURE 3B
DAIRY FACILITY

COUCO fields and Facility

LEGEND

-  Fields
-  Tailwater Pond
-  Control Box
-  Mixing Box
-  Irrigation Well
-  Domestic Well
-  TID Inlet Valve
-  Tailwater Pump
-  Discharge Pump to Pond 1
-  Overflow Pump to Pond 1
-  Mechanical Separator Pump
-  Outlet Valve
-  Tail Water
-  Crossover Pipe
-  Tail Water Return Pipeline
-  Wastewater Pipeline
-  Irrigation Pipeline
-  Irrigation Flow
-  Capped
- WW Waste Water
- C Corn
- O Oats
- S Sudan

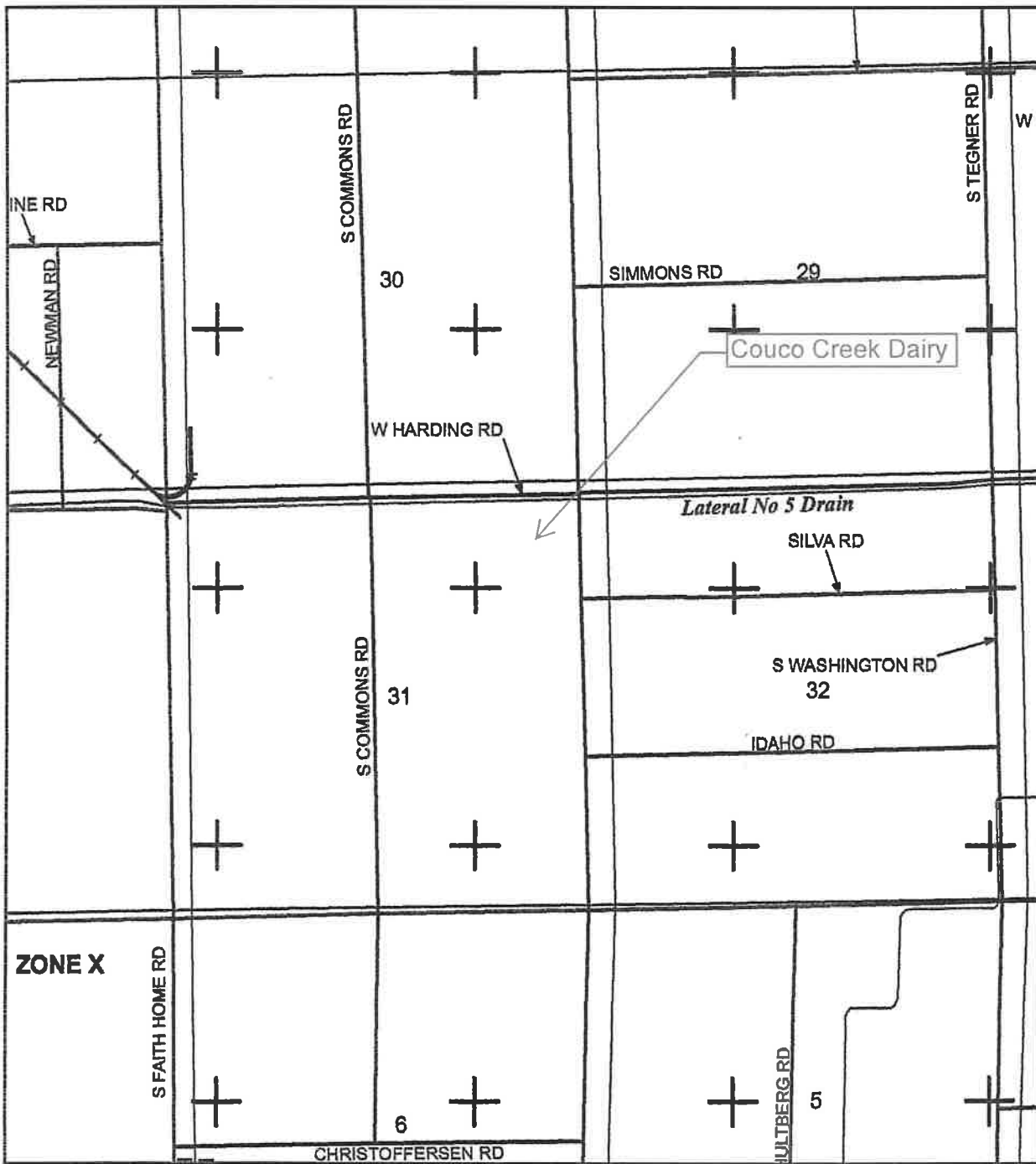


SCALE:	
	
APPROXIMATE SCALE IN FEET	
PROJECT NO.	FRA-00

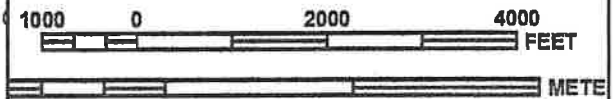
COUCO CREEK DAIRY TURLOCK, CA		
DATE:	DRAWN BY:	APP. BY:
3/31/18	SB	JR

FIGURE 4
DAIRY FIELDS

COUCO fields and Facility



MAP SCALE 1" = 2000'



NATIONAL FLOOD INSURANCE PROGRAM
 NFIP

PANEL 0800E

FIRM
 FLOOD INSURANCE RATE MAP
 STANISLAUS COUNTY,
 CALIFORNIA
 AND INCORPORATED AREAS

PANEL 800 OF 1075

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
STANISLAUS COUNTY	060384	0800	E
TURLOCK, CITY OF	060382	0800	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06099C0800E



EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

CONSTRUCTION & OPERATING EMISSIONS
COUCO CREEK DAIRY INC.
STANISLAUS COUNTY

August 8, 2018



Prepared by:



California Office
18836 E. Clausen Rd.
Turlock, CA 95380
(209) 664-1067
(209) 664-1061 fax

Idaho Office
391 S. 1st E.
Soda Springs, ID 83276
(208) 547-3722
(208) 547-3548

Table of Contents

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7.0	Results	6
	Table of Appendices	7

1.0 Project Description

The facility is proposing to construct two 108'x700' freestall barn and one 108'x260' freestall barn. The construction of the freestall barns will allow the operation to increase the support stock by 1750 head with not changes to the number of milk and dry cows.

CalEEMod 2016.3.2 was used to estimate the emissions from the construction and operation of the proposed facility expansion.

2.0 Project Characteristics

The emissions were estimated using default data for Stanislaus County which is within the CEC forecasting climate zone 3. Calculations were based on a construction start date of October 1, 2018 with construction completion by the end of October 2019. This is the timeframe that was specified to EAC Engineering by the project manager. The following pollutants were used in the analysis:

- ROG
- NO_x
- CO
- SO₂
- PM₁₀ (on-site and fugitive)
- PM_{2.5} (on-site and fugitive)
- CO₂ (including Biogenic, Non-biogenic, and Equivalent GHGs)
- CH₄
- N₂O

3.0 Land Use

For the land use type, the closest available type to a dairy operation is industrial with a subtype of general light industrial. The total area of the improvements was estimated to be 5 acres with a total building area of 179,280 sq.ft.

4.0 Construction

Construction phases were based on dairy construction industry standard timeframes and discussions with the project manager to determine their estimated time it would take to complete the project.

For each construction phase of the project, the equipment that would be used was based on dairy construction industry standard practices. Each piece of equipment was selected from the pull-down menu corresponding to phase of construction. Any default equipment that would not be used and could not be removed was assigned a unit amount of zero. No modifications were made to the CalEEMod default horsepower and load factor values for any piece of equipment.

At the present time, there will be no soils imported or exported from the operation for the grading. The grading will be conducted in a manner that balances the cut

and fill using only on-site soils. A total area of 4.5 acres will be disturbed during construction. This value was rounded up to 5 acres for the both the site preparation and grading to allow for perimeter area disturbance in the calculations.

Trip, VMT, and on-road fugitive dust values were not modified in the calculations for the construction phases of the project. For the architectural coatings, the non-residential interior area was set to zero. All of the proposed buildings on the site will be open structures; therefore there will not be any areas of the buildings that are not exposed to the outside.

5.0 Operational

Mobile

The operational mobile calculations are based on trips per day that are then multiplied by 1000 sq.ft. of building area. For a dairy facility, this would grossly overestimate the total number of vehicle trips to and from the facility. Therefore, the work day trip rate was modified to a value that represents the actual trips that will be seen on the dairy. Then the Saturday and Sunday trips were set to the same value since the facility is in operation 24 hours a day for 7 days a week. In addition, the percentages for the commercial-customer (C-C), commercial-work (C-W), and commercial-non-work (C-N) were also altered to better represent the dairy operation.

Based on discussions with the facility owner and Stanislaus County, it has been determined that the facility will see a net increase of 1 truck delivery per day. The operational calculations were based on the increase only and does not take into account the existing vehicle trips. Only the area for the freestall barns has been used in the calculations. Using these values as the basis, the trip rate was determined using the following equation:

$$\text{Trip rate} = (\text{one-way trips/building area in 1000 sq.ft.}) * 2$$
$$\text{Trip rate} = ((1+0+0)/(179,280/1,000))*2$$

The 2 multiplier at the end accounts for trips to and from the facility.

Then the trip % was determined as follows:

$$\text{Trip \%} = (\# \text{ of trip type}/\text{total one-way trips}) * 100$$
$$\text{C-C trip \%} = (0/1)*100 = 0\%$$
$$\text{C-W trip \%} = ((0)/2)*100 = 0\%$$
$$\text{C-N trip \%} = (1/1)*100 = 100\%$$

The vehicle emissions, fleet mix, and road dust values were left at CalEEMod defaults for general light industrial.

Area

There were two modifications made to the default values for the area categories. Dairy operations very seldom, if ever, reapply architectural coatings to buildings on the facility. This is primarily because the structures are made out of concrete, cmu, galvanized steel and metal, and factory painted steel and metal that is intended to last for long periods of time with very little, if any maintenance. For this reason, the reapplication rate for architectural coatings was modified to 1%.

In addition, there will be no landscaping associated with this project. CalEEMod will not allow the user to change the number of days in the summer that landscaping equipment is used to zero so this value was set at 1 to best signify the lack of landscaping.

Energy Use

All lighting variables in this section were left at program defaults. The only modification made was for the natural gas energy values since there is no use of natural gas associated with this project. The values for natural gas energy were therefore set to zero.

Water and Wastewater

CalEEMod is not designed to model the water use and wastewater production of a dairy operation. It is designed to determine the amount of human water consumption and wastewater generation based on the type of operation. Specifically for wastewater, those emissions should be estimated using other methods and software which has been done by the Air District. Therefore, for this section of the calculations, only the electricity intensity to supply and distribute the water applies. The indoor water use is based on the increase in water use for the watering of additional cattle. The following equation was used to determine the water use:

$$\begin{aligned}\text{Water use} &= (\# \text{ of cattle} * 40 \text{ gal/day} * 365 \text{ days}) / (179,280 \text{ sq.ft.} / 1000 \text{ sq.ft.}) \\ \text{Water use} &= (1750 * 40 * 365) / (179,280 / 1000) = 142,514 \text{ gal/yr}\end{aligned}$$

Off-Road Equipment

This section of the analysis was used to determine the emissions from the on-site equipment used to feed the additional cattle. It does not take into account the present equipment usage on the facility.

Stationary Sources

The only stationary source on the facility is a 200 hp emergency generator. The facility estimates that it is used for approximately 50 hours each year.

6.0 Mitigation

The following mitigation measures have been used in the analysis:

- Construction
 - Watering of exposed areas twice per day

- Max. speed of 15 mph on unpaved roads

7.0 Results

The emissions for each of the pollutants are below the maximum allowed by the SJVAPCD for both construction and operation. The following table summarizes the emission estimates from the CalEEMod analysis.

Table 7.1 – Pollutant Emissions in tons/year

<i>Phase</i>	<i>ROG</i>	<i>NO_x</i>	<i>CO</i>	<i>SO_x</i>	<i>PM10</i>	<i>PM2.5</i>
Construction	1.0893	3.6803	3.0904	0.00642	0.3319	0.2096
Operational	0.9139	0.4224	0.2430	0.00083	0.0174	0.0147
Stationary	0.00096	0.00846	0.0099	0.00004	0.0023	0.00065

Table of Appendices

Appendix A – CalEEMod Analysis Results

Appendix A
CalEEMod Analysis Results

Couco Creek Dairy - Stanislaus County, Annual

**Couco Creek Dairy
Stanislaus County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	217.80	1000sqft	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	46
Climate Zone	3			Operational Year	2020
Utility Company	Turlock Irrigation District				
CO2 Intensity (lb/MWhr)	790	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use -

Construction Phase - No demolition required - timeframes adjusted for standard dairy construction

Off-road Equipment - Demo will consist of removing existing fencing so only equipment associated with that has been used

Off-road Equipment - Based on standard dairy construction

Off-road Equipment - Based on standard dairy construction practices

Off-road Equipment - Paver means concrete paving machine for this project

Off-road Equipment - Based on standard dairy construction practices

Off-road Equipment -

Grading - Total acres graded includes adjacent areas to match building pads into existing grades

Demolition -

Architectural Coating - Not residential - There is no interior of the building. Open structure/roof only

Vehicle Trips - See report for explanation of changes

Area Coating -

Landscape Equipment - See report for explanation of change

Energy Use - No natural gas associated with project

Water And Wastewater - See report for explanation of changes

Solid Waste - Project will not result in any increase of materials hauled to county landfill

Operational Off-Road Equipment - Only increase in operation off road equipment will be the additional feeding of cattle which results in the feed truck operating an additional 2 hours per day

Stationary Sources - Emergency Generators and Fire Pumps -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	108,900.00	179,280.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	326,700.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	0.00

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tblArchitecturalCoating	EF_Parking	150.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	0.00
tblAreaCoating	ReapplicationRatePercent	10	1
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	1.00
tblConstructionPhase	NumDays	230.00	202.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	18.00	14.00
tblConstructionPhase	NumDays	5.00	11.00
tblConstructionPhase	PhaseEndDate	11/21/2019	10/1/2019
tblConstructionPhase	PhaseEndDate	10/2/2019	10/3/2019
tblConstructionPhase	PhaseEndDate	10/26/2018	10/5/2018
tblConstructionPhase	PhaseEndDate	11/14/2018	12/3/2018
tblConstructionPhase	PhaseEndDate	10/28/2019	12/21/2018
tblConstructionPhase	PhaseEndDate	11/2/2018	10/22/2018
tblConstructionPhase	PhaseStartDate	10/29/2019	10/1/2019
tblConstructionPhase	PhaseStartDate	11/15/2018	12/24/2018
tblConstructionPhase	PhaseStartDate	11/3/2018	10/23/2018
tblConstructionPhase	PhaseStartDate	10/3/2019	12/4/2018
tblConstructionPhase	PhaseStartDate	10/27/2018	10/8/2018
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24NG	17.03	0.00
tblGrading	AcresOfGrading	15.00	5.00
tblGrading	AcresOfGrading	0.00	5.00
tblLandscapeEquipment	NumberSummerDays	180	1

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tblOffRoadEquipment	HorsePower	100.00	89.00
tblOffRoadEquipment	LoadFactor	0.40	0.20
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	OffRoadEquipmentType	Forklifts	Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	2.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	1.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.38	0.38
tblOperationalOffRoadEquipment	OperLoadFactor	0.36	0.36
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblSolidWaste	SolidWasteGenerationRate	270.07	0.00
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	200.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	ST_TR	1.32	0.01
tblVehicleTrips	SU_TR	0.68	0.01
tblVehicleTrips	WD_TR	6.97	0.01
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	90.00

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tbWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tbWater	IndoorWaterUseRate	50,366,250.00	142,514.00
tbWater	SepticTankPercent	10.33	10.00

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2018	12-31-2018	0.4628	0.4628
2	1-1-2019	3-31-2019	1.1828	1.1828
3	4-1-2019	6-30-2019	1.1925	1.1925
4	7-1-2019	9-30-2019	1.2056	1.2056
		Highest	1.2056	1.2056

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8658	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	688.3658	688.3658	0.0253	5.2300e-003	690.5555
Mobile	9.6000e-004	8.4600e-003	9.9000e-003	4.0000e-005	2.2600e-003	4.0000e-005	2.3000e-003	6.1000e-004	4.0000e-005	6.5000e-004	0.0000	3.4451	3.4451	2.4000e-004	0.0000	3.4512
Offroad	0.0390	0.3910	0.2122	7.5000e-004		0.0139	0.0139		0.0128	0.0128	0.0000	65.7737	65.7737	0.0213	0.0000	66.3055
Stationary	8.2000e-003	0.0229	0.0209	4.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	3.8080	3.8080	5.3000e-004	0.0000	3.8213
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0454	0.1787	0.2241	0.0500	1.1000e-004	1.5075
Total	0.9139	0.4224	0.2430	8.3000e-004	2.2600e-003	0.0152	0.0174	6.1000e-004	0.0141	0.0147	0.0454	761.5713	761.6167	0.0973	5.3400e-003	765.6409

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.8658	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	688.3658	688.3658	0.0253	5.2300e-003	690.5555
Mobile	9.6000e-004	8.4600e-003	9.9000e-003	4.0000e-005	2.2600e-003	4.0000e-005	2.3000e-003	6.1000e-004	4.0000e-005	6.5000e-004	0.0000	3.4451	3.4451	2.4000e-004	0.0000	3.4512
Offroad	0.0390	0.3910	0.2122	7.5000e-004		0.0139	0.0139		0.0128	0.0128	0.0000	65.7737	65.7737	0.0213	0.0000	66.3055
Stationary	8.2000e-003	0.0229	0.0209	4.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	3.8080	3.8080	5.3000e-004	0.0000	3.8213
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0454	0.1787	0.2241	0.0500	1.1000e-004	1.5075
Total	0.9139	0.4224	0.2430	8.3000e-004	2.2600e-003	0.0152	0.0174	6.1000e-004	0.0141	0.0147	0.0454	761.5713	761.6167	0.0973	5.3400e-003	765.6409

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2018	10/5/2018	5	5	
2	Site Preparation	Site Preparation	10/8/2018	10/22/2018	5	11	
3	Grading	Grading	10/23/2018	12/3/2018	5	30	
4	Paving	Paving	12/4/2018	12/21/2018	5	14	
5	Building Construction	Building Construction	12/24/2018	10/3/2019	5	202	
6	Architectural Coating	Architectural Coating	10/1/2019	10/1/2019	5	1	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 179,280; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	0	8.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Rough Terrain Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	0	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

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Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Paving Equipment	0	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Welders	4	8.00	46	0.45
Demolition	Rubber Tired Loaders	1		203	0.36
Demolition	Off-Highway Trucks	1		402	0.38
Site Preparation	Excavators	1		158	0.38
Site Preparation	Graders	1		187	0.41
Site Preparation	Scrapers	1		367	0.48
Grading	Scrapers	2		367	0.48
Paving	Concrete/Industrial Saws	2		81	0.73
Paving	Off-Highway Trucks	4		402	0.38
Building Construction	Skid Steer Loaders	1		65	0.37
Building Construction	Aerial Lifts	2		63	0.31
Building Construction	Forklifts	3	8.00	89	0.20

Trips and VMT

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3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6700e-003	0.1281	0.0175	3.3000e-004	6.9500e-003	5.2000e-004	7.4700e-003	1.9100e-003	5.0000e-004	2.4100e-003	0.0000	31.6034	31.6034	2.0400e-003	0.0000	31.6544
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.1000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0976	0.0976	0.0000	0.0000	0.0977
Total	3.7400e-003	0.1282	0.0180	3.3000e-004	7.0500e-003	5.2000e-004	7.5700e-003	1.9400e-003	5.0000e-004	2.4400e-003	0.0000	31.7010	31.7010	2.0400e-003	0.0000	31.7521

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6500e-003	0.0000	2.6500e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4600e-003	0.0145	0.0129	2.0000e-005		1.0200e-003	1.0200e-003		9.4000e-004	9.4000e-004	0.0000	1.5606	1.5606	4.9000e-004	0.0000	1.5728
Total	1.4600e-003	0.0145	0.0129	2.0000e-005	2.6500e-003	1.0200e-003	3.6700e-003	2.9000e-004	9.4000e-004	1.2300e-003	0.0000	1.5606	1.5606	4.9000e-004	0.0000	1.5728

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3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.2000e-004	2.2400e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4295	0.4295	2.0000e-005	0.0000	0.4299
Total	3.0000e-004	2.2000e-004	2.2400e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4295	0.4295	2.0000e-005	0.0000	0.4299

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1900e-003	0.0000	1.1900e-003	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4600e-003	0.0145	0.0129	2.0000e-005		1.0200e-003	1.0200e-003		9.4000e-004	9.4000e-004	0.0000	1.5606	1.5606	4.9000e-004	0.0000	1.5727
Total	1.4600e-003	0.0145	0.0129	2.0000e-005	1.1900e-003	1.0200e-003	2.2100e-003	1.3000e-004	9.4000e-004	1.0700e-003	0.0000	1.5606	1.5606	4.9000e-004	0.0000	1.5727

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3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.2000e-004	2.2400e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4295	0.4295	2.0000e-005	0.0000	0.4299
Total	3.0000e-004	2.2000e-004	2.2400e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4295	0.4295	2.0000e-005	0.0000	0.4299

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6500e-003	0.0000	2.6500e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0161	0.1928	0.1129	2.2000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	20.4429	20.4429	6.3600e-003	0.0000	20.6020
Total	0.0161	0.1928	0.1129	2.2000e-004	2.6500e-003	8.5200e-003	0.0112	2.9000e-004	7.8400e-003	8.1300e-003	0.0000	20.4429	20.4429	6.3600e-003	0.0000	20.6020

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3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0700e-003	7.7000e-004	7.9600e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.1000e-004	1.0000e-005	4.3000e-004	0.0000	1.5227	1.5227	6.0000e-005	0.0000	1.5241
Total	1.0700e-003	7.7000e-004	7.9600e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.1000e-004	1.0000e-005	4.3000e-004	0.0000	1.5227	1.5227	6.0000e-005	0.0000	1.5241

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1900e-003	0.0000	1.1900e-003	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0161	0.1928	0.1129	2.2000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	20.4429	20.4429	6.3600e-003	0.0000	20.6020
Total	0.0161	0.1928	0.1129	2.2000e-004	1.1900e-003	8.5200e-003	9.7100e-003	1.3000e-004	7.8400e-003	7.9700e-003	0.0000	20.4429	20.4429	6.3600e-003	0.0000	20.6020

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3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0700e-003	7.7000e-004	7.9600e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.1000e-004	1.0000e-005	4.3000e-004	0.0000	1.5227	1.5227	6.0000e-005	0.0000	1.5241
Total	1.0700e-003	7.7000e-004	7.9600e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.1000e-004	1.0000e-005	4.3000e-004	0.0000	1.5227	1.5227	6.0000e-005	0.0000	1.5241

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2800e-003	0.0253	0.0205	3.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	3.0045	3.0045	9.4000e-004	0.0000	3.0279
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.2800e-003	0.0253	0.0205	3.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	3.0045	3.0045	9.4000e-004	0.0000	3.0279

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3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.0000e-004	5.1400e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0200e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9839	0.9839	4.0000e-005	0.0000	0.9848
Total	6.9000e-004	5.0000e-004	5.1400e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0200e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9839	0.9839	4.0000e-005	0.0000	0.9848

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2800e-003	0.0253	0.0205	3.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	3.0045	3.0045	9.4000e-004	0.0000	3.0279
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.2800e-003	0.0253	0.0205	3.0000e-005		1.2300e-003	1.2300e-003		1.1400e-003	1.1400e-003	0.0000	3.0045	3.0045	9.4000e-004	0.0000	3.0279

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3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.0000e-004	5.1400e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0200e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9839	0.9839	4.0000e-005	0.0000	0.9848
Total	6.9000e-004	5.0000e-004	5.1400e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0200e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9839	0.9839	4.0000e-005	0.0000	0.9848

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.0892	0.0746	1.2000e-004		5.5900e-003	5.5900e-003		5.3700e-003	5.3700e-003	0.0000	9.8723	9.8723	1.9900e-003	0.0000	9.9222
Total	0.0126	0.0892	0.0746	1.2000e-004		5.5900e-003	5.5900e-003		5.3700e-003	5.3700e-003	0.0000	9.8723	9.8723	1.9900e-003	0.0000	9.9222

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3.6 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.8000e-004	0.0154	2.9900e-003	3.0000e-005	7.1000e-004	1.3000e-004	8.4000e-004	2.1000e-004	1.2000e-004	3.3000e-004	0.0000	2.9370	2.9370	2.7000e-004	0.0000	2.9438
Worker	1.4900e-003	1.0800e-003	0.0111	2.0000e-005	2.1800e-003	2.0000e-005	2.2000e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	2.1317	2.1317	8.0000e-005	0.0000	2.1338
Total	2.0700e-003	0.0165	0.0141	5.0000e-005	2.8900e-003	1.5000e-004	3.0400e-003	7.9000e-004	1.4000e-004	9.3000e-004	0.0000	5.0687	5.0687	3.5000e-004	0.0000	5.0776

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.0892	0.0746	1.2000e-004		5.5900e-003	5.5900e-003		5.3700e-003	5.3700e-003	0.0000	9.8723	9.8723	1.9900e-003	0.0000	9.9221
Total	0.0126	0.0892	0.0746	1.2000e-004		5.5900e-003	5.5900e-003		5.3700e-003	5.3700e-003	0.0000	9.8723	9.8723	1.9900e-003	0.0000	9.9221

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3.6 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.8000e-004	0.0154	2.9900e-003	3.0000e-005	7.1000e-004	1.3000e-004	8.4000e-004	2.1000e-004	1.2000e-004	3.3000e-004	0.0000	2.9370	2.9370	2.7000e-004	0.0000	2.9438
Worker	1.4900e-003	1.0800e-003	0.0111	2.0000e-005	2.1800e-003	2.0000e-005	2.2000e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	2.1317	2.1317	8.0000e-005	0.0000	2.1338
Total	2.0700e-003	0.0165	0.0141	5.0000e-005	2.8900e-003	1.5000e-004	3.0400e-003	7.9000e-004	1.4000e-004	9.3000e-004	0.0000	5.0687	5.0687	3.5000e-004	0.0000	5.0776

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3643	2.7013	2.4081	3.8400e-003		0.1599	0.1599		0.1538	0.1538	0.0000	323.5280	323.5280	0.0629	0.0000	325.1010
Total	0.3643	2.7013	2.4081	3.8400e-003		0.1599	0.1599		0.1538	0.1538	0.0000	323.5280	323.5280	0.0629	0.0000	325.1010

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3.6 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0169	0.4792	0.0875	1.0100e-003	0.0236	3.6000e-003	0.0272	6.8100e-003	3.4400e-003	0.0103	0.0000	96.1017	96.1017	8.7500e-003	0.0000	96.3204
Worker	0.0444	0.0311	0.3253	7.6000e-004	0.0720	5.7000e-004	0.0726	0.0191	5.3000e-004	0.0197	0.0000	68.3232	68.3232	2.3800e-003	0.0000	68.3828
Total	0.0613	0.5103	0.4128	1.7700e-003	0.0956	4.1700e-003	0.0997	0.0259	3.9700e-003	0.0299	0.0000	164.4249	164.4249	0.0111	0.0000	164.7031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3643	2.7013	2.4081	3.8400e-003		0.1599	0.1599		0.1538	0.1538	0.0000	323.5276	323.5276	0.0629	0.0000	325.1006
Total	0.3643	2.7013	2.4081	3.8400e-003		0.1599	0.1599		0.1538	0.1538	0.0000	323.5276	323.5276	0.0629	0.0000	325.1006

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3.6 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0169	0.4792	0.0875	1.0100e-003	0.0236	3.6000e-003	0.0272	6.8100e-003	3.4400e-003	0.0103	0.0000	96.1017	96.1017	8.7500e-003	0.0000	96.3204
Worker	0.0444	0.0311	0.3253	7.6000e-004	0.0720	5.7000e-004	0.0726	0.0191	5.3000e-004	0.0197	0.0000	68.3232	68.3232	2.3800e-003	0.0000	68.3828
Total	0.0613	0.5103	0.4128	1.7700e-003	0.0956	4.1700e-003	0.0997	0.0259	3.9700e-003	0.0299	0.0000	164.4249	164.4249	0.0111	0.0000	164.7031

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6232					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3000e-004	9.2000e-004	9.2000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Total	0.6234	9.2000e-004	9.2000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279

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3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.2000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0683	0.0683	0.0000	0.0000	0.0683
Total	4.0000e-005	3.0000e-005	3.2000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0683	0.0683	0.0000	0.0000	0.0683

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6232					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3000e-004	9.2000e-004	9.2000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Total	0.6234	9.2000e-004	9.2000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279

Couco Creek Dairy - Stanislaus County, Annual

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.2000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0683	0.0683	0.0000	0.0000	0.0683
Total	4.0000e-005	3.0000e-005	3.2000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0683	0.0683	0.0000	0.0000	0.0683

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.6000e-004	8.4600e-003	9.9000e-003	4.0000e-005	2.2600e-003	4.0000e-005	2.3000e-003	6.1000e-004	4.0000e-005	6.5000e-004	0.0000	3.4451	3.4451	2.4000e-004	0.0000	3.4512
Unmitigated	9.6000e-004	8.4600e-003	9.9000e-003	4.0000e-005	2.2600e-003	4.0000e-005	2.3000e-003	6.1000e-004	4.0000e-005	6.5000e-004	0.0000	3.4451	3.4451	2.4000e-004	0.0000	3.4512

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	2.40	2.40	2.40	5,939	5,939
Total	2.40	2.40	2.40	5,939	5,939

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	0.00	0.00	100.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.501303	0.035285	0.172289	0.136094	0.027047	0.006047	0.027345	0.084787	0.001820	0.001183	0.004865	0.000869	0.001067

5.0 Energy Detail

Couco Creek Dairy - Stanislaus County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.921e+006	688.3658	0.0253	5.2300e-003	690.5555
Total		688.3658	0.0253	5.2300e-003	690.5555

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.921e+006	688.3658	0.0253	5.2300e-003	690.5555
Total		688.3658	0.0253	5.2300e-003	690.5555

6.0 Area Detail

6.1 Mitigation Measures Area

Couco Creek Dairy - Stanislaus County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8658	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.8658	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0151					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.8658	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0151					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.8658	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

Couco Creek Dairy - Stanislaus County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.2241	0.0500	1.1000e-004	1.5075
Unmitigated	0.2241	0.0500	1.1000e-004	1.5075

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.142514 / 0	0.2241	0.0500	1.1000e-004	1.5075
Total		0.2241	0.0500	1.1000e-004	1.5075

Couco Creek Dairy - Stanislaus County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.142514 / 0	0.2241	0.0500	1.1000e-004	1.5075
Total		0.2241	0.0500	1.1000e-004	1.5075

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Couco Creek Dairy - Stanislaus County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Couco Creek Dairy - Stanislaus County, Annual

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	1	2.00	365	402	0.38	Diesel
Rubber Tired Loaders	1	1.00	365	203	0.36	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Off-Highway Trucks	0.0304	0.2899	0.1747	6.1000e-004		0.0106	0.0106		9.7200e-003	9.7200e-003	0.0000	53.1872	53.1872	0.0172	0.0000	53.6172
Rubber Tired Loaders	8.5800e-003	0.1011	0.0375	1.4000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	12.5865	12.5865	4.0700e-003	0.0000	12.6883
Total	0.0390	0.3910	0.2122	7.5000e-004		0.0139	0.0139		0.0128	0.0128	0.0000	65.7737	65.7737	0.0213	0.0000	66.3055

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	50	200	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Couco Creek Dairy - Stanislaus County, Annual

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	8.2000e-003	0.0229	0.0209	4.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	3.8080	3.8080	5.3000e-004	0.0000	3.8213
Total	8.2000e-003	0.0229	0.0209	4.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	3.8080	3.8080	5.3000e-004	0.0000	3.8213

11.0 Vegetation






San Joaquin Valley Air Pollution Control District

www.valleyair.org



Permit Application For:

- AUTHORITY TO CONSTRUCT (ATC) - New Emission Unit
 AUTHORITY TO CONSTRUCT (ATC) - Modification Of Emission Unit With Valid PTO/Valid ATC
 AUTHORITY TO CONSTRUCT (ATC) - Renewal of Valid Authority to Construct
 PERMIT TO OPERATE (PTO) - Existing Emission Unit Now Requiring a Permit to Operate

1. PERMIT TO BE ISSUED TO: Couco Creek Dairy Inc.	
2. MAILING ADDRESS: STREET/P.O. BOX: 3303 S. Washington Road CITY: Turlock STATE: Ca. ZIP CODE: 95380	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: 3303 S. Washington Rd. CITY: Turlock SECTION TOWNSHIP RANGE	WITHIN 1,000 FT OF A SCHOOL? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
4. GENERAL NATURE OF BUSINESS: Dairy Facility	S.I.C. CODE(S) OF FACILITY (If known):
5. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC <input type="checkbox"/> YES If yes, please complete and attach a Compliance Certification form (TVFORM-009)? <input checked="" type="checkbox"/> NO	
6. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (Please include Permit #'s if known, and use additional sheets if necessary) -Modification of existing facility to construct three freestalls barns with no exercise pens to house 1750 additional support stock within existing footprint. -Modification of existing permit from 3100 Milk Cows, 437 Dry Cows and 500 Support Stock to 3100 Milk Cows, 437 Dry Cows and 2250 Support Stock. EQUIPMENT INSTALLATION or MODIFICATION DATE: To Be determined	
7. PERMIT REVIEW PERIOD: Do you request a three- or ten-day period to review the draft Authority to Construct permit? Please note that requesting a review period will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review process. <input type="checkbox"/> 3-day review <input type="checkbox"/> 10-day review <input checked="" type="checkbox"/> No review requested	
8. HAVE YOU EVER APPLIED FOR AN ATC OR PTO IN THE PAST? <input checked="" type="checkbox"/> YES If yes, ATC/PTO #: N-8767 <input type="checkbox"/> NO	Optional Section 11. DO YOU WANT TO RECEIVE INFORMATION ABOUT EITHER OF THE FOLLOWING VOLUNTARY PROGRAMS? <input type="checkbox"/> "HEALTHY AIR LIVING (HAL) BUSINESS PARTNER" <input type="checkbox"/> "INSPECT"  
9. IS THIS APPLICATION FOR THE CONSTRUCTION OF A NEW FACILITY? <input type="checkbox"/> YES If "Yes", please complete the CEQA Information form. <input checked="" type="checkbox"/> NO If "No", is the proposed equipment or project allowed: - by the current Conditional Use Permit or other Land Use Permit? <input type="checkbox"/> YES <input type="checkbox"/> NO - or by Right? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
10. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION OR A NOTICE TO COMPLY? <input type="checkbox"/> YES If yes, NOV/NTC #: _____ <input checked="" type="checkbox"/> NO	
12. TYPE OR PRINT NAME OF APPLICANT: Tony Machado	TITLE OF APPLICANT: Owner
13. SIGNATURE OF APPLICANT: 	DATE: 4/23/18
PHONE #: (209) 761-9322 CELL PHONE #: FAX #: E-MAIL:	

FOR APCD USE ONLY:

DATE STAMP:	FILING FEE
	RECEIVED: \$ _____ CHECK #: _____
	DATE PAID: _____
	PROJECT #: _____ FACILITY ID: _____



**San Joaquin Valley Air Pollution Control District
Supplemental Application Form**



Application for Dairy Farms - Modification of Cow Housing

This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form

Permit to be issued to: Couco Creek Dairy Inc.
Location of Dairy: 3303 S. Washington Road Turlock, Ca. 95380

COW HOUSING PRIOR TO MODIFICATION **Please provide a facility site map drawn to scale showing all freestall barns, open corrals, and other cow housing areas prior to the proposed modification.*

FREESTALL BARNs: Please provide the maximum number and type of cows (*i.e. Milk Cows, Dry Cows, Large Heifers 15-24 months, Medium Heifers 7-14 months, Small Heifers 3-6 months, Calves 0-3 months, Bulls*) in each Freestall Barn **PRIOR to the modification** (use additional sheets if needed)

#	Freestall Barn Name/Identification	Type of Cow Housed (e.g. Milk, Dry, Heifers 15-24 mo., etc.)	Max # of Cows Housed	Type of Bedding (e.g. manure, sand, sawdust, etc.)	Manure Cleaning from Lanes (e.g. flush, scrape, vacuum, other)	# Times Lanes Cleaned per Day	Has Exercise Pen(s) (Y/N)	Frequency Pens Scraped
1	Freestall Barn A	Milk Cow	500	Manure	Flush	4	Y	Weekly
2	Freestall Barn B	Milk Cow	1200	Manure	Flush	4	Y	Weekly
3	Freestall Barn C	Milk Cow	600	Manure	Flush	4	Y	Weekly
4	Freestall Barn D	Milk Cow	300	Manure	Flush	4	Y	Weekly
5	Freestall Barn E	Milk Cow	500	Manure	Flush	4	Y	Weekly
6								
7								
8								
9								
10								
11								
12								
Total number of freestall barns at the dairy: 5			Max number of head housed in freestall barns: 3100					

CORRALS/PENS: Please provide the maximum number and type of cows (*i.e. Milk Cows, Dry Cows, Large Heifers 15-24 months, etc.*) in each Corral **PRIOR to the modification** (use additional sheets if needed)

#	Corral/Pen Name/Identification	Type of Cow Housed (e.g. Milk, Dry, Heifers 15-24 mo., Calves, etc.)	Max # of Cows Housed	Manure Cleaning from Lanes (e.g. flush, scrape, vacuum, other)	# Times Lanes Cleaned per Day	Has Shade(s) (Y/N)	Frequency Corrals/Pens Scraped
1	Shade 1	Dry Cow	150	Flush	4	Y	Weekly
2	Shade 2	Dry Cow	50	Flush	4	Y	Weekly
3	Shade 3	Dry Cow	237	Flush	4	Y	Weekly
4	Shade 4	Support Stock	250	Flush	2	Y	Weekly
5	Shade 5	Support Stock	250	Flush	2	Y	Weekly
6							
7							
8							
9							

CORRALS/PENS: Please provide the maximum number and type of cows (i.e. Milk Cows, Dry Cows, Large Heifers 15-24 months, etc.) in each Corral PRIOR to the modification (use additional sheets if needed)

#	Corral/Pen Name/Identification	Type of Cow Housed (e.g. Milk, Dry, Heifers 15-24 mo., Calves, etc.)	Max # of Cows Housed	Manure Cleaning from Lanes (e.g. flush, scrape, vacuum, other)	# Times Lanes Cleaned per Day	Has Shade(s) (Y/N)	Frequency Corrals/Pens Scraped
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Total number of Corrals/Pens at the dairy: 5 Max number of head housed in Corrals: 937

OTHER HOUSING (e.g. Saudi Barns, Loafing Barns, etc.): Please identify other housing and provide the max number and type of cows in each other housing type PRIOR to the modification (use additional sheets if needed)

#	Housing Description Name/Identification	Type of Cow Housed (e.g. Milk Cows, Dry Cows, Heifers, Calves)	Max # of Cows Housed	Type of Bedding (e.g. manure, sand, sawdust, etc.)	Manure Removal from Lanes (e.g. flush, scrape, vacuum, other)	# Times Lanes Cleaned per Day
1						
2						
3						
4						
5						
6						
7						
8						

Max number of head housed in other housing: 0

CALF HUTCHES: Please provide the maximum number of calves (0-3 months) housed in Calf Hutches PRIOR to the modification (use additional sheets if needed)

#	Calf Hutch Area Description/Identification	Max # of Calves Housed	Calf Hutches on ground or aboveground (please check one)		Manure Removal from Hutches (e.g. flush, scrape, other)
			On Ground	Aboveground	
1					
2					
3					
4					

Max number of Calves (0-3 months) housed in hutches: 0

Other Cow Housing Facilities prior to Modification (check all that apply)

X Special Needs X Maternity Housing Other: _____

COW HOUSING AFTER MODIFICATION *Please provide a facility site map drawn to scale showing all freestall barns, open corrals, and other cow housing areas after the proposed modification.

FREESTALL BARNs: Please provide the maximum number and type of cows (i.e. Milk Cows, Dry Cows, Large Heifers 15-24 months, Medium Heifers 7-14 months, Small Heifers 3-6 months, Calves 0-3 months, Bulls) in each Freestall Barn **AFTER** the modification (use additional sheets if needed)

#	Freestall Barn Name/Identification	Type of Cow Housed (e.g. Milk, Dry, Heifers 15-24 mo., etc.)	Max # of Cows Housed	Type of Bedding (e.g. manure, sand, sawdust, etc.)	Manure Cleaning from Lanes (e.g. flush, scrape, vacuum, other)	# Times Lanes Cleaned per Day	Has Exercise Pen(s) (Y/N)	Frequency Pens Scraped
1	Freestall Barn A	Milk Cow	500	Manure	Flush	4	Y	Weekly
2	Freestall Barn B	Milk Cow	1200	Manure	Flush	4	Y	Weekly
3	Freestall Barn C	Milk Cow	600	Manure	Flush	4	Y	Weekly
4	Freestall Barn D	Milk Cow	300	Manure	Flush	4	Y	Weekly
5	Freestall Barn E	Milk Cow	500	Manure	Flush	4	Y	Weekly
6	Proposed Freestall Barn F	Support Stock	750	Manure	Flush	4	N	N/A
7	Proposed Freestall Barn G	Support Stock	750	Manure	Flush	4	N	N/A
8	Proposed Freestall H	Support Stock	250	Manure	Flush	4	N	N/A
9								
10								
11								
12								
13								
14								
15								

Total number of freestall barns at the dairy: 8

Max number of head housed in freestall barns: 4850

CORRALS/PENS: Please provide the maximum number and type of cows (i.e. Milk Cows, Dry Cows, Large Heifers 15-24 months, etc.) in each Corral **AFTER** the modification (use additional sheets if needed)

#	Corral/Pen Name/Identification	Type of Cow Housed (e.g. Milk, Dry, Heifers 15-24 mo., Calves, etc.)	Max # of Cows Housed	Manure Cleaning from Lanes (e.g. flush, scrape, vacuum, other)	# Times Lanes Cleaned per Day	Has Shade(s) (Y/N)	Frequency Corrals/Pens Scraped
1	Shade 1	Dry Cow	150	Flush	4	Y	Weekly
2	Shade 2	Dry Cow	50	Flush	4	Y	Weekly
3	Shade 3	Dry Cow	237	Flush	4	Y	Weekly
4	Shade 4	Support Stock	250	Flush	2	Y	Weekly
5	Shade 5	Support Stock	250	Flush	2	Y	Weekly
6							
7							
8							
9							
10							
11							
12							

CORRALS/PENS: Please provide the maximum number and type of cows (i.e. Milk Cows, Dry Cows, Large Heifers 15-24 months, etc.) in each Corral **AFTER** the modification (use additional sheets if needed)

#	Corral/Pen Name/Identification	Type of Cow Housed (e.g. Milk, Dry, Heifers 15-24 mo., Calves, etc.)	Max # of Cows Housed	Manure Cleaning from Lanes (e.g. flush, scrape, vacuum, other)	# Times Lanes Cleaned per Day	Has Shade(s) (Y/N)	Frequency Corrals/Pens Scraped
13							
14							
15							
16							
17							
18							
19							
21							
22							
23							
24							
25							

Total number of Corrals/Pens at the dairy: 5

Max number of head housed in Corrals: 937

OTHER HOUSING (e.g. Saudi Barns, Loafing Barns, etc.): Please identify other housing and provide the max number and type of cows in each other housing type **AFTER** the modification (use additional sheets if needed)

#	Housing Description Name/Identification	Type of Cow Housed (e.g. Milk Cows, Dry Cows, Heifers, Calves)	Max # of Cows Housed	Type of Bedding (e.g. manure, sand, sawdust, etc.)	Manure Removal from Lanes (e.g. flush, scrape, vacuum, other)	# Times Lanes Cleaned per Day
1						
2						
3						
4						
5						
6						
7						
8						

Max number of head housed in other housing: 0

CALF HUTCHES: Please provide the maximum number of calves (0-3 months) housed in Calf Hutches **AFTER** the modification (use additional sheets if needed)

#	Calf Hutch Area Description/Identification	Max # of Calves Housed	Calf Hutches on ground or aboveground (please check one)		Manure Removal from Hutches (e.g. flush, scrape, other)
			On Ground	Aboveground	
1					
2					
3					
4					

Max number of Calves (0-3 months) housed in hutches: 0

Other Cow Housing Facilities after Modification (check all that apply)

Special Needs Maternity Housing Other: _____



Know what's below. Call before you dig.

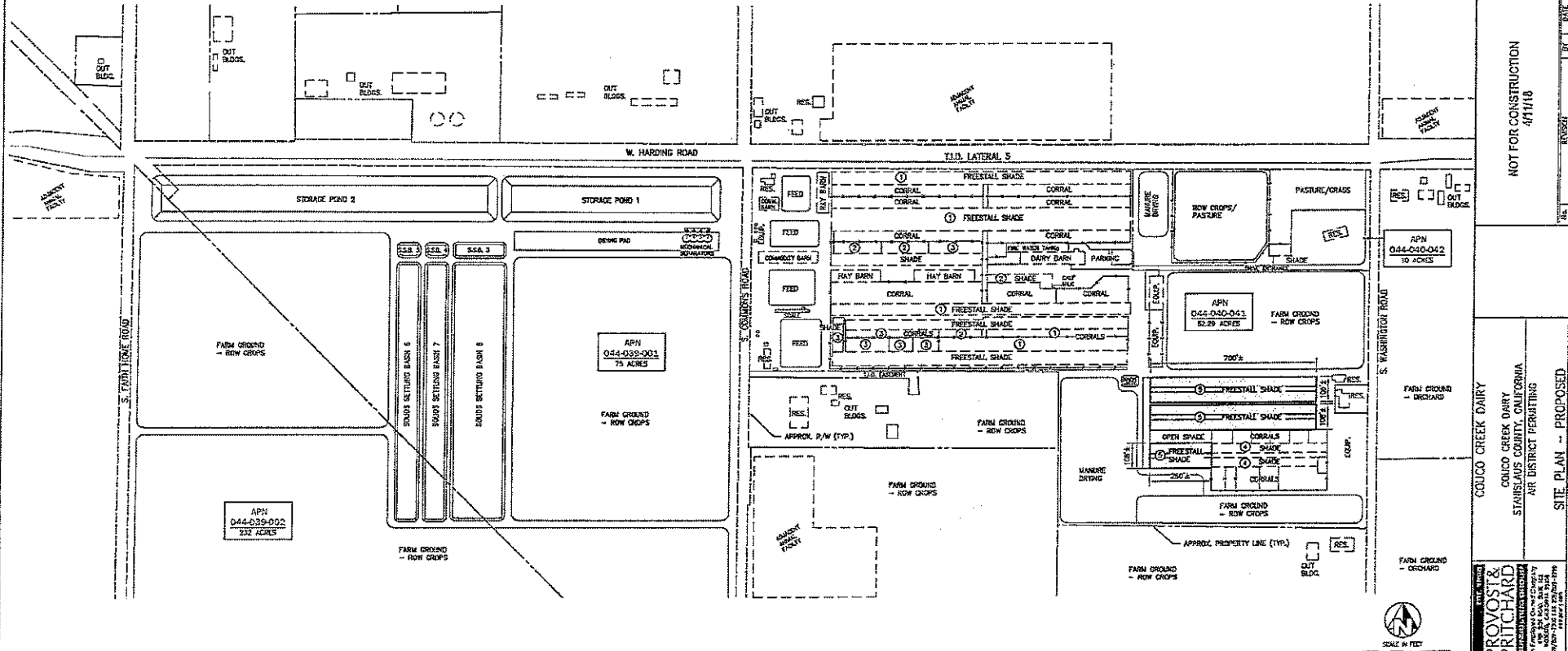


WARNING
POWER LINES
OVERHEAD

SITE LEGEND

- SITE BOUNDARY LINE
- CANALS & DITCHES
- APPROXIMATE RIGHT-OF-WAY
- HERD INDEX LABEL (SEE TABLE)
- APPROXIMATE PROPERTY LINE
- EXISTING STRUCTURE / ADJACENT ANIMAL FACILITY
- PROPOSED STRUCTURE

HERD INDEX - PROPOSED					
①	DESCRIPTION	HOUSING	FLOOR/SQ/PAVE	ANIMALS	
1	NEW COWS	FREESTALL / EXERCISE PEN	FLOOR	3000	MATURE
2	DRY / SPECIAL NEEDS COWS	FREESTALL / LOADING / EXERCISE PEN	FLOOR	437	SEWING
3	HEIFERS	FREESTALL / EXERCISE PEN	FLOOR	400	
4	HEIFERS	OPEN CORRAL	FLOOR	400	
5	HEIFERS	FREESTALL / NO EXERCISE PEN	FLOOR	1800	
		TOTAL		6,077	



SITE PLAN -- PROPOSED



NOT FOR CONSTRUCTION
4/11/10

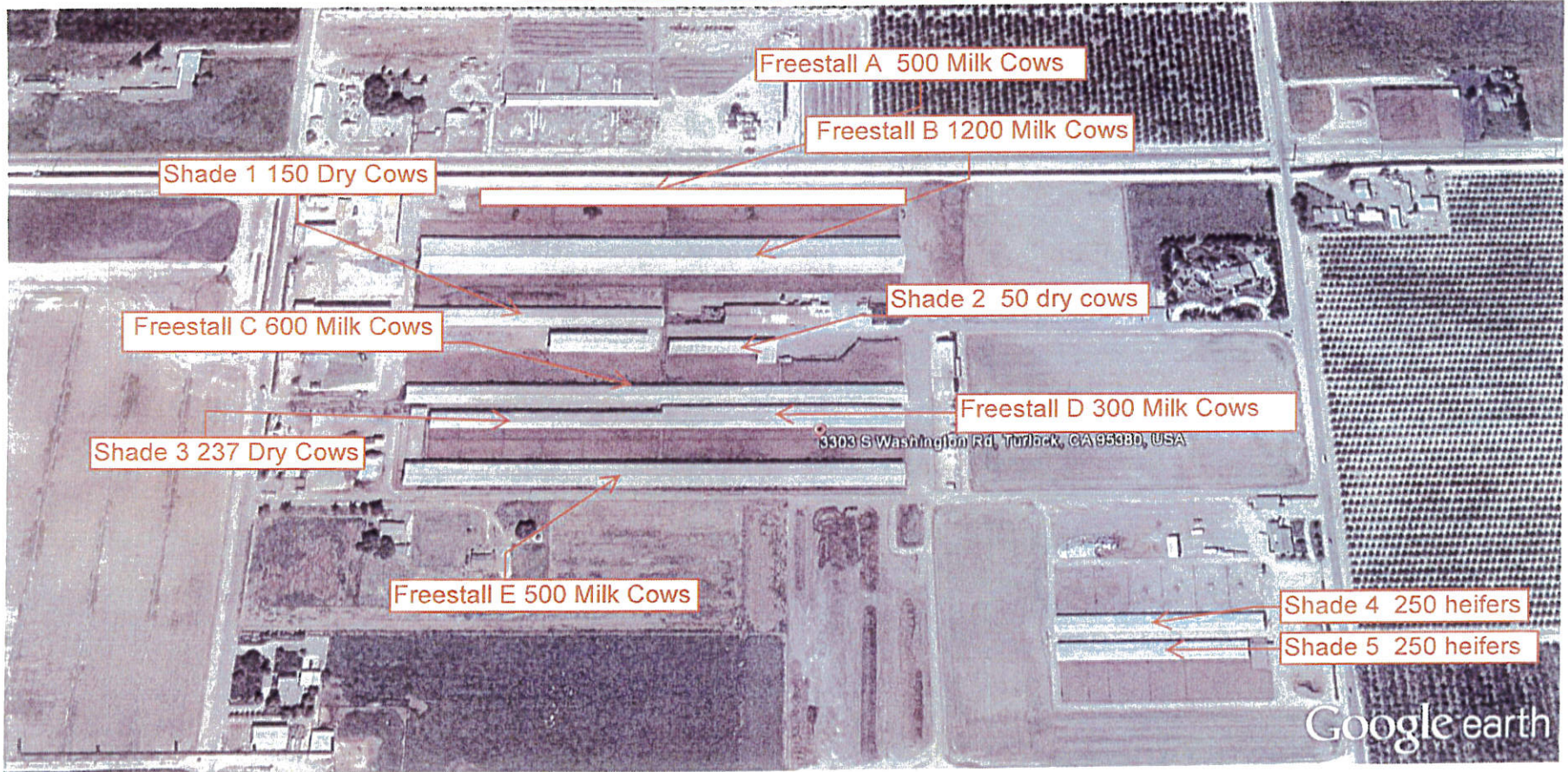
COUGO CREEK DAIRY
COUGO CREEK DAIRY
STANISLAUS COUNTY, CALIFORNIA
AIR DISTRICT PERMITTING

PROVOST & PRITCHARD
DESIGN ENGINEER
L. TOSTE
LICENSE NO.
NCE 72803

DRAWN BY: J. TOSTE
CHECKED BY: J. TOSTE
DATED: 4-11-2010
JOB NO: 2302-1001
PROJECT NO: 2302
SCALE: AS SHOWN
SHEET 3 OF 3

07/16/10 11:48 AM: User: jpritchard, Location: C:\Users\jpritchard\Desktop\2302-1001\2302-1001.dwg, Plot: 3 of 3

Existing Couco Creek Dairy Inc.

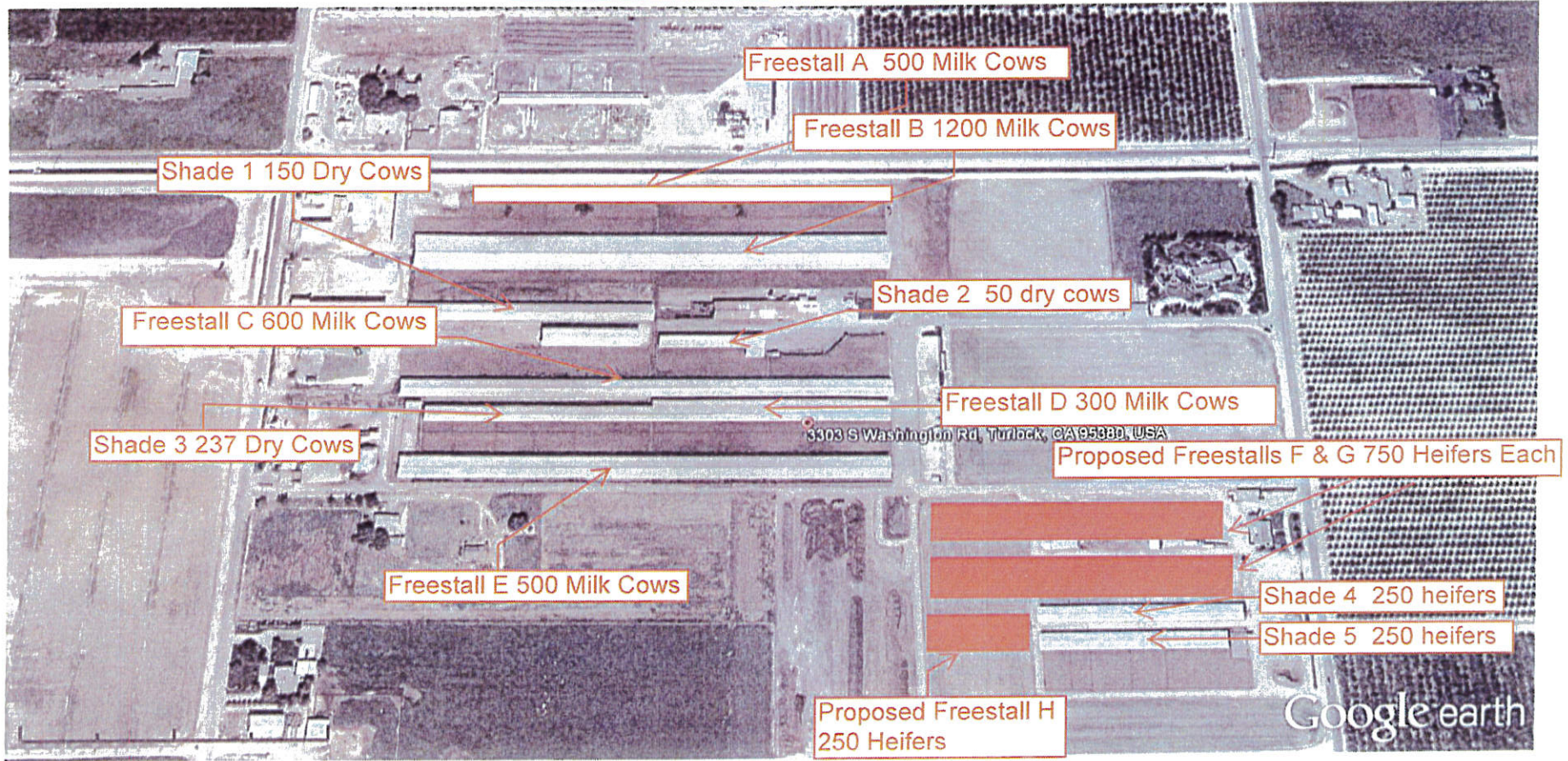


Google earth

feet
meters



Proposed Couco Creek Dairy Inc.



Google earth



Couco Creek Dairy Inc.

Property Boundaries

Legend

S Washington Rd

Google earth

3000 ft



EDMUND G. BROWN JR.
GOVERNORMATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

4 October 2018

Rachel Wyse
Associate Planner
Stanislaus County Planning and
Development
1010 10th St., Ste. 3400
Modesto, CA 95354



REVIEW OF NUTRIENT AND WASTE MANAGEMENT PLANS FOR COUCO CREEK DAIRY, 3303 S WASHINGTON ROAD, TURLOCK, STANISLAUS COUNTY

The Couco Creek Dairy located at 3303 S Washington Rd., Turlock submitted revised Nutrient and Waste Management Plans (NMP and WMP) with the intention of increasing the herd size at the facility. Currently, the dairy is permitted for a maximum of 2,400 mature milk cows (milking and dry cows) with 340 acres of cropland. The dairy intends to increase the herd size to 3,487 mature milk cows (3,050 milking and 437 dry) with 314 acres of cropland. The difference in the size of cropland between the original and the revised NMP was attributed to a portion of cropland being converted to a manure composting and storage area.

According to the revised NMP, the dairy anticipates importing 16,675 lbs. of nitrogen in the form of commercial fertilizer; utilizing all the wastewater generated at the site and exporting solid manure equivalent to 756,000 lbs. of nitrogen. The field-by-field nitrogen applied-to-removed ratio ranged from 1.29 to 1.42 and the whole farm nitrogen balance ratio was 1.36.

In the WMP, the storage capacities were calculated using 2 feet of freeboard and 2 feet of dead storage loss for the storage lagoons. The existing and required storage capacities were calculated to be 33.2 and 30.1 million gallons respectively.

Reviewing the documents, staff concluded that the revised NMP and WMP are in accordance with the standards outlined in the General Order. As these are the working documents for the dairy, thorough implementation of the plans is extremely important to minimize the impact of animal waste on surface and groundwater quality.

If you have questions, please telephone Girma Getachew at (916 464 4851) or email: girma.getachew@waterboards.ca.gov.

Charlene Herbst
Chief Confined Animal Facility Unit

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER



CHIEF EXECUTIVE OFFICE

Jody L. Hayes
Chief Executive Officer

Patricia Hill Thomas
Chief Operations Officer/
Assistant Executive Officer

Keith D. Boggs
Assistant Executive Officer

Patrice M. Dietrich
Assistant Executive Officer



STANISLAUS COUNTY ENVIRONMENTAL REVIEW COMMITTEE

June 12, 2018

Kristen Anaya, Assistant Planner
Stanislaus County Planning and Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354

SUBJECT: ENVIRONMENTAL REFERRAL – COUCO CREEK DAIRY, INC. – USE PERMIT APPLICATION NO. PLN2018-0043 – EARLY CONSULTATION

Ms. Anaya:

Thank you for the opportunity to review the Early Consultation phase of the above-referenced project.

The Stanislaus County Environmental Review Committee (ERC) has reviewed the subject project and has no comments at this time.

The ERC appreciates the opportunity to comment on this project.

Sincerely,

A handwritten signature in black ink that reads "Patrick Cavanah".

Patrick Cavanah
Sr. Management Consultant
Environmental Review Committee

PC:ss

cc: ERC Members



DEPARTMENT OF PUBLIC WORKS

*David Leamon, PE
Interim Public Works Director
Construction Administration/Operations*

*Chris Brady, PE
Deputy Director - Design/Survey/Fleet Maintenance*

*Frederic Clark, PE, LS
Deputy Director - Development/Traffic*

*Letti Ortiz
Senior Business and Finance Manager*

www.stancounty.com/publicworks

September 4, 2018

To: Kristen Anaya, Assistant Planner, Planning and Community Development

From: Angie Halverson, Senior Land Development Coordinator

Subject: PLN2018-0043 Couco Creek Dairy, Inc. – Use Permit

This is a request to expand an existing dairy operation that is in the Turlock area. This dairy expansion will include the construction of three new free-stall barns totaling over 176,550 square feet. Public Works has reviewed the project and applied the following conditions of approval:

OFF-SITE:

1. Prior to the issuance of a building permit, an encroachment permit shall be taken out for an asphalt driveway onto Commons Road. The driveway to be paved is the driveway that sees the most truck traffic accessing Commons Road.
 - A paved driveway shall be installed per Stanislaus County Public Works Standards and Specifications for a Minor Road.
2. No parking, loading, or unloading of vehicles is permitted within the Commons Road or Washington Road right of way. The developer shall install or pay for the installation of any off-site signs and/or markings, as required by Stanislaus County.
3. Prior to the issuance of any building or grading permit for the property, the South Washington Road frontage shall be offered to Stanislaus County as an Irrevocable Offer of Dedication. Washington Road is classified as an 80 foot Minor Collector roadway. The required ½ width is 40 feet west of the centerline. Currently there is 20 feet of existing right of way. This means that the requirement for the IOD to be 20 feet west of the existing right of way.
4. Prior to the issuance of any building or grading permit for the property, the Commons Road frontage shall be offered to Stanislaus County as an Irrevocable Offer of Dedication. Commons Road is classified as a 60 foot Local roadway. The required ½ width is 30 feet east of the centerline. Currently there is 20 feet of existing right of way. This means that the requirement for the IOD to be 10 feet east of the existing right of way.

ON-SITE:

5. A grading, drainage, and erosion/sediment control plan for the project site shall be submitted with the building permit. Public Works will review and approve the drainage calculations. The grading and drainage plan shall include the following information:
- The plan shall contain enough information to verify that all runoff will be kept from going onto adjacent properties and Stanislaus County road right-of-way.
 - The grading drainage and erosion/sediment control plan shall comply with the current State of California National Pollutant Discharge Elimination System (NPDES) General Construction Permit. A Waste Discharger Identification Number and a copy of the Notice of Intent and the projects Stormwater Pollution Prevention Plan shall be provided prior to the approval of any grading, if applicable.
 - The applicant of the grading permit shall pay the current Stanislaus County Public Works weighted labor rate for the plan review of the grading plan.
 - The applicant of the grading permit shall pay the current Stanislaus County Public Works weighted labor rate for all on-site inspections. The Public Works Inspector shall be contacted 48 hours prior to the commencement of any grading or drainage work on-site.

Central Valley Regional Water Quality Control Board

6 June 2018

Kristen Anaya
Stanislaus County
Department of Planning and Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354



CERTIFIED MAIL
91 7199 9991 7039 6992 0821

**COMMENTS TO REQUEST FOR REVIEW FOR THE EARLY CONSULTATION,
USE PERMIT APPLICATION NO. PLN2018-0043 – COUCO CREEK DAIRY, INC. PROJECT,
STANISLAUS COUNTY**

Pursuant to the Stanislaus County Department of Planning and Community Development's 25 May 2018 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Early Consultation* for the Use Permit Application No. PLN2018-0043 – Couco Creek Dairy, Inc. Project, located in Stanislaus County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, EXECUTIVE OFFICER

amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:
http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to

restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements – Discharges to Waters of the State

If USACOE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board’s Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver)

R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/for_growers/apply_coalition_group/index.shtml or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.
2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100.** Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently \$1,084 + \$6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to*

Surface Waters (Low Threat General Order) or the General Order for Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf


NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit3.shtml

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.



Stephanie Tadlock
Environmental Scientist

JUN 13 2018

JUN 15 2018

STANISLAUS CO. PLANNING &
COMMUNITY DEVELOPMENT DEPT.

Kristen Anaya
Stanislaus County
Planning & Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354

Project: Use Permit Application No. PLN2018-0043 Couco Creek Dairy, Inc.

District CEQA Reference No: 20180568

Dear Ms. Anaya:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Early Consultant Referral for the project referenced above located at 3303 S. Washington Road, in Turlock, CA. The proposed project consists of a request to modify the heifer units approved under Use Permit (UP) PLN2014-0028 from 3,050 milk cows, 437 dry cows, 250 medium heifers and 250 small heifers to 3,050 milk cows, 437 dry cows, 750 large heifers, 1,000 medium heifers, and 500 small heifers. This project also includes the construction of three freestall shade structures/barns totaling 176,550 square feet over existing corrals (Project). The District offers the following comments:

Emissions Analysis

- 1) At the federal level for the National Ambient Air Quality Standards (NAAQS), the District is currently designated as extreme nonattainment for the 8-hour ozone standards; nonattainment for the PM2.5 standards; and attainment for the 1-Hour ozone, PM10 and CO standards. At the state level, the District is currently designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 California Ambient Air Quality Standards (CAAQS).
- 2) Based on information provided to the District, Project specific annual emissions of criteria pollutants are not expected to exceed any of the following District significance thresholds: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5). Therefore, the District concludes that the Project would have a less than significant impact on air quality when compared to the above-listed annual criteria pollutant emissions significance thresholds.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-8400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-8000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

District Rules and Regulations

3) The proposed Project may be subject to the following District rules: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). The following rules are specific to confined animal operations:

- Rule 4102 (Nuisance) – This rule applies to any source operation that emits or may emit air contaminants or other materials. In the event that the Project or construction of the Project creates a public nuisance, it could be in violation and be subject to District enforcement action.
- Rule 4550 (Conservation Management Practices) – The purpose of this rule is to limit fugitive dust emissions from agricultural operation sites. These sites include areas of crop production, animal feeding operations and unpaved roads/equipment areas. The District's CMP handbook can be found online at the District's website at: http://www.valleyair.org/farmpermits/updates/cmp_handbook.pdf.
- Rule 4570 (Confined Animal Facilities) – District Rule 4570 was adopted by the District's Governing Board on June 15, 2006. Dairies with greater than or equal to 500 milk cows are subject to the requirements of District Rule 4570. Therefore, a Rule 4570 application shall also be submitted to the District.

The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this Project or to obtain information about District permit requirements, the applicant is encouraged to contact the District's Small Business Assistance Office at (209) 557-6446. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.

District staff is available to meet with you and/or the applicant to discuss the regulatory requirements that are associated with this Project. If you have any questions or require further information, please call Sharla Yang at (559) 230-5934 and provide the reference number at the top of the letter.

Sincerely,

Arnaud Marjollet
Director of Permit Services


Brian Clements
Program Manager

AM: sy

June 4, 2018

Stanislaus County Planning & Community Development
Attn: Kristen Anaya
1010 10th Street, Suite 3400
Modesto, CA 95354



RE: Use Permit Application No. PLN2018-0043 – Couco Creek Dairy, Inc.

Dear Ms. Anaya:

The Turlock Irrigation District (District) acknowledges the opportunity to review and comment on the referenced project. District standards require development occurring within the District's boundary that impacts irrigation and electric facilities, to meet the District's requirements.

An irrigation pipeline belonging to Improvement District 711, the Bell Branch of the Chatom, runs from east to west along the north edge of the proposed freestall shade barns. This pipeline must be protected at all times during construction and operation of the facilities.

The District shall review and approve all maps and plans of the project. Any improvements to this property which impact irrigation facilities shall be subject to the District's approval and meet all District standards and specifications. If it is determined that irrigation facilities will be impacted, the applicant will need to provide irrigation improvement plans and enter into an Irrigation Improvements Agreement for the required irrigation facility modifications. There is a District Board approved time and material fee associated with this review.

If you have any questions concerning irrigation system requirements, please contact me at (209) 883-8367. Questions regarding electric utility requirements should be directed to David Porath at (209) 883-8659.

Sincerely,



Todd Troglin
Supervising Engineering Technician, Civil
CF: 2014013



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH



KEN ALEX
DIRECTOR

Request for Early Consultation



May 29, 2018

To: Reviewing Agencies

Re: Use Permit Application No. 2018-0043 - Couco Creek Dairy, Inc
SCH# 2018052073

Prior to determining whether a Negative Declaration or an Environmental Impact Report (EIR) is required for a project under CEQA, a Lead Agency is required to consult with all responsible and trustee agencies. This notice and attachment fulfill the early consultation requirement. Recommendations on the appropriate type of environmental document for this project, as well as comments on its scope and content, should be transmitted to the Lead Agency at the address below. You do not have to be a responsible or trustee agency to comment on the project. All agencies are encouraged to comment in a manner that will assist the Lead Agency to prepare a complete and adequate environmental document.

Please direct your comments to:

Kristen Anaya
Stanislaus County
1010 10th Street, Suite 3400
Modesto, CA 95354

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to SCH Number 2018052073 in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachment
cc: Lead Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2018052073
Project Title Use Permit Application No. 2018-0043 - Couco Creek Dairy, Inc
Lead Agency Stanislaus County

Type CON Early Consultation
Description Request to modify the heifer units approved under UP PLN2014-0028 - Machado (Couco Creek) Dairy from 250 medium heifers and 250 small heifers to 750 large heifers, 1,000 medium heifers, and 500 small heifers. Cow numbers are to remain at 3,050 milk cows and 437 dry cows. This project includes construction of three freestall shade barns, totaling 176,550 sq. ft., over existing corrals located due south of the southwest corner of W Harding and S Washington Roads. The estimated wastewater storage needs will be accommodated by the existing capacity of the on-site lagoons.

Lead Agency Contact

Name Kristen Anaya
Agency Stanislaus County
Phone 209-525-6330 **Fax**
email
Address 1010 10th Street, Suite 3400
City Modesto **State** CA **Zip** 95354

Project Location

County Stanislaus
City Turlock
Region
Cross Streets W. Harding Rd. & S Washington Rd
Lat / Long
Parcel No. 044-039-001, 2, 044-040-041, 042; 057-015-034
Township 5 **Range** 10 **Section** 31 **Base**

Proximity to:

Highways
Airports
Railways Union Pacific
Waterways
Schools
Land Use PLU: Dairy/Row Crops; Zoning: A-2-40 (General Agriculture); GPD: Agiculture

Project Issues

Reviewing Agencies Resources Agency; Central Valley Flood Protection Board; Department of Fish and Wildlife, Region 4; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 10; Department of Food and Agriculture; Regional Water Quality Control Bd., Region 5 (Sacramento); Native American Heritage Commission; Public Utilities Commission

Date Received 05/29/2018 **Start of Review** 05/29/2018 **End of Review** 06/18/2018



**Notice Completion and
Environmental Document Transmittal**
California Environmental Quality Act

SCH # **2018052** / 3

TO: State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044
(916) 445-0613

FROM: Stanislaus County Planning & Community Development
1010 10th Street, Suite 3400, Modesto, CA 95354
Planning Phone: (209) 525-6330 Fax: (209) 525-5911
Building Phone: (209) 525-6557 Fax: (209) 525-7759

Project Title: Use Permit Application No. 2018-0043 – Couco Creek Dairy, Inc
Lead Agency: Stanislaus County Planning and Community Development **Contact Person:** Kristen Anaya, Assistant Planner
Street Address: 1010 10th Street, Suite 3400 **Phone:** (209) 525-6330
City: Modesto, CA **Zip:** 95354 **County:** Stanislaus

Project Location: 3303 S Washington Road **City/Nearest Community:** Turlock
Cross Streets: W Harding Rd & S Washington Rd **Zip Code:** 95382
Longitude/Latitude (degrees, minutes and seconds): _____ ° _____ ' N / _____ ° _____ ' W **Total Acres:** 422.24±
Assessor's Parcel Number: 044-039-001 & 002; 044-040-041 & 042; 057-015-034 **Section:** 31 **Twp.:** 5 **Range:** 10 **Base:** _____
Within 2 Miles: State Hwy #: N/A **Waterways:** N/A
Airports: N/A **Railways:** Union Pacific **Schools:** N/A

Local Public Review Period: (to be filled in by lead agency)
Starting Date: May 25, 2018 **Ending Date:** June 12, 2018

Document Type:
CEQA: NOP Draft EIR Supplement/Subsequent EIR Neg Dec (Prior SCH No.) Mit Neg Dec Other: _____
NEPA: NOI EA Draft EIS FONSI
OTHER: Joint Document Final Document Other: _____
Sovereign's Office of Planning & Research
MAY 29 2018

Local Action Type:
 General Plan Update Specific Plan Rezone Annexation
 General Plan Amendment Master Plan Prezone Redevelopment
 General Plan Element Planned Unit Development Use Permit Coastal Permit
 Community Plan Site Plan Land Division (Subdivision, etc.) Other _____

Development Type:
 Residential Units: _____ Acres: _____ Employees: _____ Water Facilities Type: _____ MGD _____
 Office Sq.ft.: _____ Acres: _____ Employees: _____ Transportation Type: _____
 Commercial Sq.ft.: _____ Acres: _____ Employees: _____ Mining Mineral: _____
 Industrial Sq.ft.: _____ Acres: _____ Employees: _____ Power Type: _____ Watts _____
 Educational _____ Waste Facilities Type: _____ MGD _____
 Recreational _____ Hazardous Waste Type: _____
 OCS Related _____ Other Confined Animal Facility Operation: Dairy

Project Issues Discussed in Document:
 Aesthetic/Visual Fiscal Recreation/Parks Vegetation
 Agricultural Land Flood Plain/Flooding Schools/Universities Water Quality
 Air Quality Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
 Archeological/Historical Geological/Seismic Sewer Capacity Wetland/Riparian
 Biological Resources Minerals Soil Erosion/Compaction/Grading Growth Inducement
 Coastal Zone Noise Solid Waste Land Use
 Drainage/Absorption Population/Housing Balance Toxic/Hazardous Cumulative Effects
 Economic/Jobs Public Services/Facilities Traffic/Circulation Other _____

Present Land Use/Zoning/General Plan Designation:
PLU: Dairy/Row Crops; Zoning: A-2-40 (General Agriculture); GPD: Agriculture

Project Description: (please use a separate page if necessary)
Request to modify the helper units approved under UP PLN2014-0028 – Machado (Couco Creek) Dairy from 250 medium helpers and 250 small helpers to 750 large helpers, 1,000 medium helpers, and 500 small helpers. Cow numbers are to remain at 3,060 milk cows and 437 dry cows. This project includes construction of three freestall shade barns, totaling 176,550 square feet, over existing corrals located due south of the southwest corner of W Harding and S Washington Roads. The estimated wastewater storage needs will be accommodated by the existing capacity of the on-site lagoons.

State Clearinghouse Contact: WJ
(916) 445-0613

State Review Began: 5 - 29 - 2018

EARLY CONSULTATION

SEND COMMENTS DIRECTLY TO
LEAD AGENCY BY: 6 - 18 - 2018

Please note State Clearinghouse Number (SCH#) on all Comments
2018052073

SCH#: _____
Please forward late comments directly to the Lead Agency

- Project Sent to the following State Agencies**
- Resources
 - Boating & Waterways
 - Central Valley Flood Prot.
 - Coastal Comm
 - Colorado Rvr Bd
 - Conservation
 - CDFW # 4
 - Cal Fire
 - Historic Preservation
 - Parks & Rec
 - Bay Cons & Dev Comm.
 - DWR
 - CalSTA
 - Aeronautics
 - CHP
 - Caltrans # 10
 - CHP
 - Trans Planning
 - Other
 - Education
 - Food & Agriculture
 - HCD
 - Cal EPA
 - ARB: Airport & Freight
 - ARB: Transportation Projects
 - ARB: Major Industrial/Energy
 - Resources, Recyc. & Recovery
 - SWRCB: Div. of Drinking Water
 - SWRCB: Div Drinking Wtr # _____
 - SWRCB: Div. Financial Assist.
 - SWRCB: Wtr Quality
 - SWRCB: Wtr Rights
 - Reg. WQCB # 55
 - Toxic Sub Ctrl-CTC
 - Yth/Adlt Corrections
 - Corrections
 - Independent Comm
 - Delta Protection Comm
 - Delta Stewardship Council
 - Energy Commission
 - NAHC
 - Public Utilities Comm
 - Santa Monica Bay Restoration
 - State Lands Comm
 - Tahoe Rgl Plan Agency



Stanislaus County Planning and Community Development

1010 10th Street, Suite 3400
Modesto, California 95354

Phone: (209) 525-6330
Fax: (209) 525-5911

CEQA INITIAL STUDY

Adapted from CEQA Guidelines APPENDIX G Environmental Checklist Form, Final Text, December 30, 2009

- | | | |
|----|--|---|
| 1. | Project title: | Use Permit Application No. PLN2014-0028 - Machado (Couco Creek) Dairy |
| 2. | Lead agency name and address: | Stanislaus County
1010 10th Street, Suite 3400
Modesto, CA 95354 |
| 3. | Contact person and phone number: | Rachel Wyse, Associate Planner
(209) 525-6330 |
| 4. | Project location: | 3303 S. Washington Road, on the southwest corner of W. Harding and S. Washington Roads, in the Turlock area. APN: 044-039-001, 044-039-002, 044-040-041, 044-040-042, 057-015-034 |
| 5. | Project sponsor's name and address: | Tony Machado
3303 S. Washington Road
Turlock, CA 95380 |
| 6. | General Plan designation: | Agriculture |
| 7. | Zoning: | A-2-40 (General Agriculture) |
| 8. | Description of project: | |

Request to reorganize the existing Machado (Couco Creek) Dairy herd size from 2,100 milk cows, 200 dry cows, 820 bred heifers, 667 medium heifers, and 250 small heifers (for a total of 4,037 head), to 3,050 milk cows, 437 dry cows, 0 bred heifers, 250 medium heifers, and 250 small heifers (for a total of 3,987 head). The applicant is proposing to eventually increase the milk and dry cow head count while completely removing bred heifers from the site and reducing the medium heifers to increase the financial viability of the existing dairy facility. Ultimately, the total number of cows will be reduced by 50. Consequently, the number of mature cows on-site will increase by 1,187, thereby generating additional waste. The dairy's existing Waste Management Plan (WMP) and Nutrient Management Plan (NMP) were revised to account for the increase in waste and resulting storage and disposal needs associated with the reorganization of the herd size. The updated WMP estimates that daily manure production will be approximately 41,091 gallons per day. The NMP estimates the additional manure generation by the expanded herd will result in approximately 12,250 tons of additional manure per year. All manure will be trucked off-site.

The existing dairy operation contains all the necessary corrals, feed storage, waste containment, and utilities. The dairy milk barn is a double 30 parallel parlor with a capacity of over 250 cows per hour. The proposed increase in herd size will not require any modifications to the existing milking facility as it is currently underutilized. The dairy facility is proposing to remove 1,237 large and medium heifers from the site and replace them with 950 additional milk cows and 237 dry cows. Due to the increase in animal units, this application includes a request to install a roof-only freestall barn over the existing most northerly corrals within the facility. The applicant has contacted the San

Joaquin Valley Air Pollution Control District (SJVAPCD) and the Regional Water Quality Control Board (RWQCB) and has confirmed that the proposed numbers are below CEQA significant impact thresholds and that the project requires individual Waste Discharge Requirements (WDRs). (See emails dated March 4, 2014, from Mr. Heinen and Mrs. Herbst.)

There are five Assessor parcels included in this request; however, only APN: 044-040-041 houses the dairy facility. The remaining four APNs consist of 340 acres of cropland. According to the NMP for this expansion, the dairy anticipates importing 3,740 pounds of nitrogen in the form of commercial fertilizer, utilizing all the wastewater generated at the site, and exporting all the solid manure. In the revised NMP, the field-by-field nitrogen applied-to-removed ratio ranges from 1.38 to 1.40. The whole farm nitrogen balance ration was 1.4. Furthermore, the WMP was prepared to evaluate the impact of the expansion on required lagoon capacity. In the WMP, the storage capacities were calculated using 2 feet of freeboard and 2 feet of dead storage loss for the storage lagoons. The existing and required storage capacities were calculated to be 33.2 and 25.9 million gallons respectively. Consequently, the current design and capacity of the existing lagoons is adequate. RWQCB staff have determined that the revised NMP and WMP are in accordance with the standards outlined in the General Order and that thorough implementation of these plans will minimize the impacts of animal waste on surface and groundwater quality. Furthermore, the SJVAPCD has determined that, based on the information provided to the District, project specific emissions criteria pollutants are not expected to exceed District significance thresholds of 10 tons/year NOX, 10 ton/year ROG, and 15 tons/year PM10; therefore, the District concludes that project specific criteria pollutant emissions would have no significant adverse impact on air quality.

- 9. Surrounding land uses and setting:** Unrelated dairies to the west; Planned Development (P-D [81]) - Chemurgic Agricultural Chemicals and orchards to the north; and various agricultural uses, farm houses, and outbuildings to the north, west, east, and south.

- 10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):** Regional Water Quality Control Board
San Joaquin Valley Air Pollution Control District
Department of Environmental Resources - Hazardous Waste Division
Building Permits Division
CA Department of Fish and Wildlife
US Fish and Wildlife Service

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- Aesthetics
- Agriculture & Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology /Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology / Water Quality
- Land Use / Planning
- Mineral Resources
- Noise
- Population / Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities / Service Systems
- Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:

- I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Rachel Wyse, Associate Planner
Prepared By

August 22, 2014
Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration.

Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

- a) **Earlier Analysis Used.** Identify and state where they are available for review.
 - b) **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) **Mitigation Measures.** For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
 - 7) **Supporting Information Sources:** A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
 - 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
 - 9) The explanation of each issue should identify:
 - a) the significant criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

ISSUES

I. AESTHETICS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	
<p>Discussion: Any development resulting from this project will be consistent with existing area developments. The site itself is not considered to be a scenic resource or a unique scenic vista. The site is currently developed with existing "dairy" facilities/structures. The existing structures are comprised of metal which is a material consistent with accessory structures in and around the A-2 (General Agriculture) zoning district. The applicant is proposing to construct a roof-only freestall barn over the existing northernmost corrals within the facility. Standard conditions of approval will be added to this project to address glare from any previously installed or any proposed supplemental on-site lighting.</p>				
<p>Mitigation: None.</p>				
<p>References: Stanislaus County General Plan and Support Documentation¹.</p>				
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X

d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Discussion: The project site is comprised of five separate assessor parcel numbers (APNs) currently enrolled under Williamson Act Contract Nos. 76-2290 & 02-4491. The existing dairy facility is located at 3303 S. Washington Road, further identified as APN 044-040-041. The property has soils classified by the Farmland Mapping and Monitoring Program as being primarily "Confined Animal Agriculture", "Farmland of Statewide Importance", and "Prime Farmland". Soils include Dinuba sandy loam, Dinuba sandy loam slightly saline-alkali, and Hilmar loamy sand.

This project will have no impact to forest land or timberland. This project will not conflict with any agricultural activities in the area and/or lands enrolled in the Williamson Act. The project was referred to the Department of Conservation but a response has not been received to date.

Surrounding uses include unrelated dairies to the west; Planned Development (P-D [81]) - Chemurgic Agricultural Chemicals and orchards to the north; and various agricultural uses, farm houses, and outbuildings to the north, west, east, and south. The County has a Right-to-Farm Ordinance in place to protect agricultural operations from unjust nuisance complaints.

Mitigation: None.

References: USDA-NRCS Web Soil Survey; Rezone Application No. 82-04 - Chemurgic Agricultural Chemicals; Stanislaus County Geographical Information Systems (GIS); and the Stanislaus County General Plan and Support Documentation¹.



III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

Discussion: The project site is within the San Joaquin Valley Air Basin, which has been classified as "severe non-attainment" for ozone and respirable particulate matter (PM-10) as defined by the Federal Clean Air Act. The San Joaquin Valley Air Pollution Control District (SJVAPCD) has been established by the State in an effort to control and minimize air pollution. As such, the District maintains permit authority over stationary sources of pollutants.

The SJVAPCD responded to a previously circulated Early Consultation for the proposed project which consists of a request to reorganize the existing dairy herd size from 2,100 milk cows, 200 dry cows, 820 bred heifers, 667 medium heifers, and 250 small heifers (for a total of 4,037 head) to 3,050 milk cows, 437 dry cows, 0 bred heifers, 250 medium heifers, and 250 small heifers (for a total of 3,987 head). The applicant is proposing to eventually increase the milk and dry cow head count while completely removing bred heifers from the site and reducing the medium heifers. Ultimately, the total number of cows will be reduced by 50. This project also includes a request to construct a roof-only freestall barn over the existing northernmost corrals within the facility. The SJVAPCD offered the following comments:

- 1) The District is currently designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM10 and CO, and nonattainment for PM2.5 for the federal air quality standards. At the state level, the District is designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 air quality standards.
- 2) Based on information provided to the District, project specific emissions of criteria pollutants are not expected to exceed District significance thresholds of 10 tons/year, NOX, 10 ton/year ROG, and 15 tons/year PM10. Therefore the District concludes that project specific criteria pollutant emissions would have no significant adverse impact on air quality.

The SJVAPCD did state that the project would be subject to Regulation VIII (Fugitive PM-10 Prohibitions), District Rules 4102 (Nuisance), 4601 (Architectural Coatings), 4641 (Cutback, Slow Cure, & Emulsified Asphalt, Paving & Maintenance Operations), 4550 (Conservation Management Practices), and 4507 (Confined Animal Facilities). In the event an existing building will be renovated, partially demolished, or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). All comments provided by the District will be incorporated into the project's conditions of approval.

Mitigation: None.

References: Referral response from the San Joaquin Valley Air Pollution Control District dated March 26, 2014; San Joaquin Valley Air Pollution Control District - Regulation VIII Fugitive Dust/PM-10 Synopsis; and the Stanislaus County General Plan and Support Documentation¹.

IV. BIOLOGICAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Discussion: It does not appear this project will result in impacts to endangered species or habitats, locally designated species, or wildlife dispersal or mitigation corridors. The project site is an existing facility that has been used to house milk cows, dry cows, and various sized heifers. Moreover, the number of animal units will decrease by 50 and be housed in existing corrals. Likewise, the proposed roof-only freestall barn will be constructed over the existing northernmost corrals. Consequently, no new areas of disturbance will occur as a result of this request. The remaining portion of the site, not developed with structures or pens, is used as crop land in support of the dairy (see project description). A referral response from RWQCB identified that the site is currently permitted for a maximum of 2,400 mature milk cows (milking and dry cows) with 340 acres of cropland under the Board's General Order issued to the project location. The dairy intends to increase the herd size to 3,487 mature milk cows (3,050 milking and 437 dry) with no change in the acreage of cropland. No additional wastewater storage facilities will be constructed as existing lagoon capacity is sufficient for increased liquid waste resulting from the expansion. Increased manure production will be moved to the existing on-site manure storage location and trucked off site.

Under the Clean Water Act, Concentrated Animal Feeding Operations (CAFOs) are defined as point source dischargers. The revised National Pollutant Discharge Elimination System (NPDES) CAFO regulation requires all CAFOs to apply for, and comply with, the conditions in an NPDES permit. The NPDES regulation describes which operations qualify as CAFOs and sets forth the basic requirements that will be included in all CAFOs' permits. A condition of approval will be added to the project requiring the applicant to comply with the revised NPDES regulation, if applicable.

The project was referred to the California Department of Fish and Wildlife (formerly the Department of Fish and Game) and the United States Fish and Wildlife Service for Early Consultation comments but no response has been received to date.

Mitigation: None.

References: Referral response from the Regional Water Quality Control Board dated July 18, 2014; California Department of Fish and Wildlife (formerly the Department of Fish and Game) California Natural Diversity Database; and the Stanislaus County General Plan and Support Documentation¹.

V. CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X

Discussion: It does not appear this project will result in significant impacts to any archaeological or cultural resources. The applicant is proposing to construct a roof-only freestall barn over the existing northernmost corral. Minor ground disturbance will occur during the construction of footings to support the roof-only structure. Consequently, a standard condition of approval will be added to this project to address any discovery of cultural resources during any ground disturbing activities. The project was referred to the Native American Heritage Commission (NAHC) via the State Clearinghouse; however, a response to the Early Consultation has not been received to date.

Mitigation: None.

References: Stanislaus County General Plan and Support Documentation¹.

VI. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			X	

Discussion: As contained in Chapter Five of the General Plan Support Documentation, the areas of the County subject to significant geologic hazard are located in the Diablo Range, west of Interstate 5; however, as per the California Building Code, all of Stanislaus County is located within a geologic hazard zone (Seismic Design Category D, E, or F) and a soils test may be required as part of the building permit process. Results from the soils test will determine if unstable or expansive soils are present. If such soils are present, special engineering of the structure will be required to compensate for the soil deficiency. Any structures resulting from this project will be designed and built according to building standards appropriate to withstand shaking for the area in which they are constructed. Any earth moving is subject to Public Works Standards and Specifications which consider the potential for erosion and run-off prior to permit approval. Likewise, any addition of a septic tank or alternative waste water disposal system would require the approval of the Department of Environmental Resources (DER) through the building permit process, which also takes soil type into consideration within the specific design requirements. The project was referred to DER and the County's Building Permits Division. DER has not responded to date. Building Permits Division comments will be incorporated into the conditions of approval for this project.

Mitigation: None.

References: Referral response from the Stanislaus County Building Permits Division dated March 27, 2014; California Building Code; and the Stanislaus County General Plan and Support Documentation - Safety Element¹.

VII. GREENHOUSE GAS EMISSIONS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	
<p>Discussion: The Environmental Protection Agency (EPA) has issued a rule mandating that livestock facilities report methane and nitrous oxide emissions if they have manure management systems that emit 25,000 metric tons, or 55.1 million pounds, of carbon dioxide each day. The EPA further estimated that 3,200 mature dairy cows produce the 25,000 metric tons of annual carbon dioxide equivalent that would trigger reporting requirements. The USDA Agricultural Research Service's Northwest Irrigation and Soils Research laboratory, in Kimberly, Idaho, conducted a study on a 10,000 milking cow facility and found that emissions thresholds for 25,000 metric tons of annual carbon dioxide equivalent is actually 4,808 mature cows, based on the dairy it monitored. Based on the USDA findings, each cow would produce 5.2 metric tons of annual carbon dioxide equivalent. Machado Dairy currently is permitted by the RWQCB to have up to 2,400 mature milk cows. The current expansion request would increase the herd size to 3,487 mature milk cows (3,050 milking and 437 dry). It is important to note that some Stanislaus County dairy farmers sold off their cows in 2008 and 2009 to maintain milk prices. In 2007, there were 186,802 cows and 301 dairies in Stanislaus County. In 2011, there were 180,416 cows and 232 dairies. As of 2012, there were 187,061 cows and 216 dairies. This project (Machado Dairy) will add an annual amount of carbon dioxide to the region but Planning staff believes it will be less than significant as the increase will generate less than 25,000 metric tons of annual carbon dioxide equivalent. This project was referred to, reviewed by, and commented on by the San Joaquin Valley Air Pollution Control District (SJVAPCD).</p>				
<p>Mitigation: None.</p>				
<p>References: "Piloting Innovative Beef and Dairy GHG Emission Reduction Strategies in U.S. Feedlots and Dairies" www.csrwire.com/press_releases/33079-Innovativ; California Department of Food & Agriculture, California Dairy Statistics 2012 Data; referral response from the Regional Water Quality Control Board dated July 18, 2014; referral response from the San Joaquin Valley Air Pollution Control District dated March 26, 2014; and the Stanislaus County General Plan and Support Documentation¹.</p>				
VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Discussion: Hazardous materials potentially used on site include: pipeline cleaning soap; acid cleaner; iodine; teat dip; refrigerant (R22) (used in the milk barn); formaldehyde and copper sulfate (used in cow foot baths); diesel fuel and gasoline (in tanks); motor oil hydraulic fluid; brake fluid; and antifreeze (for farm vehicle maintenance).

Pesticide exposure is a risk in agricultural areas. Sources of exposure include contaminated groundwater, which is consumed, and drift from spray applications. Application of sprays is strictly controlled by the Agricultural Commissioner and can only be accomplished after first obtaining permits. DER is responsible for overseeing hazardous materials in this area. The project was referred to the Hazardous Materials Division via the Environmental Review Committee but no response has been received to date.

The Envirostar database was accessed to determine if any of the properties were listed as potential hazardous waste or superfund sites. None of the properties included in this application were identified on this list; however, the parcel located at the northeast corner of W. Harding and Faith Home Roads was identified as an inactive site requiring further evaluation. According to the Envirostar database, the Chemurgic Corporation constructed a facility to fulfill a contract with the Chemical Warfare Service of the Army for M-69 (Incendiary Oil) bomb loading and storage. The contract was terminated in 1945. Thereafter, according to County records, the property was rezoned to P-D (81) by the Chemurgic Ag Chemicals, Inc. to allow a feed manufacturing operation and similar agricultural-commercial uses. The Chemurgic Ag Chemicals, Inc. site is located across from the dairy site's lagoons (on APN 044-039-001) and further separated by W. Harding Road and the Turlock Irrigation District's 60-foot wide Lateral No. 5. Information concerning the Chemurgic Ag Chemicals, Inc. site was forwarded to the Department of Environmental Resources for input; no comments have been received to date.

Mitigation: None.

References: Department of Toxic Substances Control (www.envirostar.dtsc.ca.gov); Rezone 82-04 - Chemurgic Agricultural Chemicals; Stanislaus County Geographical Information System; and the Stanislaus County General Plan and Support Documentation¹.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

Discussion: Run-off is not considered an issue because of several factors which limit the potential impact. These factors include a relative flat terrain of the subject site and relatively low rainfall intensities. Areas subject to flooding have been identified in accordance with the Federal Emergency Management Act. The project site itself is not located within a recognized flood zone and, as such, flooding is not an issue with respect to this project. The Stanislaus County Department of Public Works has reviewed the project and is requiring a grading, drainage, and erosion/sediment control plan as a part of the building permit for the roof-only structure. Consequently, run-off associated with the construction of the new structure will be reviewed as part of the overall building permit review process. No septic systems or additional wells are being proposed as a part of this project.

The WMP and NMP were reviewed by RWQCB staff to determine if the amount of wastewater generated, utilized to wash down the facility, and applied to crops was in accordance with the standards outlined in the General Order and whether WDRs are needed. The purpose of these plans, and the General Order, is to insure that approved plans are designed and implemented to insure that the impact of animal waste on surface and groundwater quality is minimized and poses a less than significant impact on water quality. According to the WMP, the facility will increase water usage from 48,813 gallons per day to 64,992 gallons per day. The existing and required lagoon storage capacities were calculated to be 33.2 and 25.9 million gallons respectively. RWQCB staff have determined that the aforementioned plans are compliant with the General Order and that the existing lagoons are adequately sized to handle any additional waste resulting from the reorganization. Consequently, the potential for impacts to ground and surface water, water quality, and polluted run-off were determined to be less than significant.

Mitigation: None.				
References: Referral response from the Stanislaus County Department of Public Works dated March 12, 2014; referral response from the Regional Water Quality Control Board dated July 18, 2014; Machado (Couco Creek) Dairy's Revised Waste Management and Nutrient Management Plans; and the Stanislaus County General Plan and Support Documentation ¹ .				
X. LAND USE AND PLANNING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
Discussion: The project site is designated Agriculture and zoned A-2-40 (General Agriculture, 40-acre minimum). The site currently houses a total of 4,037 head as permitted in the agricultural zone; however, the RWQCB has determined that the proposed project is subject to CEQA and, therefore, requires that the applicants obtain a Use Permit in accordance with §21.20.030(F) of the Stanislaus County Zoning Ordinance. CEQA is required in instances where a dairy will be required to obtain Individual WDRs as part of an expansion. This project will not conflict with any applicable habitat conservation plan or natural community conservation plan and will not physically divide an established community.				
Mitigation: None.				
References: Stanislaus County General Plan and Support Documentation ¹ .				
XI. MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
Discussion: The location of all commercially viable mineral resources in Stanislaus County has been mapped by the State Division of Mines and Geology in Special Report 173. There are no known significant resources on the site.				
Mitigation: None.				
References: Stanislaus County General Plan and Support Documentation ¹ .				

XII. NOISE -- Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
<p>Discussion: Noise impacts associated with on-site activities and traffic are not anticipated to exceed the normally acceptable level of noise. The project will increase ambient noise levels. Permanent increases may result as the number of animal units is increased on site; however, noise associated with animals in the Agricultural zone is permissible. There will be a temporary increase in noise due to the construction of the freestall barn roof; however, a condition of approval will be added limiting the hours of construction so as to lessen noise impacts to neighbors. The nearest sensitive noise receptors are homes on neighboring properties. The nearest dwellings are located within 300 feet of the existing dairy facility footprint. The dwelling to the north is accessory to an existing confined animal facility operation. The dwelling to the south of Machado (Couco Creek) Dairy is a nine acre homesite.</p>				
<p>Mitigation: None.</p>				
<p>References: Application information; Stanislaus County Geographical Information Systems; and the Stanislaus County General Plan and Support Documentation¹.</p>				
XIII. POPULATION AND HOUSING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

<p>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</p>				<p>X</p>
<p>Discussion: The proposed use of the site will not create significant service extensions or new infrastructure which could be considered as growth inducing. No housing or persons will be displaced by this project. The increased animals will utilize existing corrals. The roof-only structure will be constructed over an existing corral. This project is adjacent to large scale agricultural operations and the nature of the use is considered consistent with the A-2 zoning district.</p>				
<p>Mitigation: None.</p>				
<p>References: Application information and the Stanislaus County General Plan and Support Documentation¹.</p>				
<p>XIV. PUBLIC SERVICES --</p>	<p>Potentially Significant Impact</p>	<p>Less Than Significant With Mitigation Included</p>	<p>Less Than Significant Impact</p>	<p>No Impact</p>
<p>a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</p>				
<p>Fire protection?</p>			<p>X</p>	
<p>Police protection?</p>			<p>X</p>	
<p>Schools?</p>				<p>X</p>
<p>Parks?</p>				<p>X</p>
<p>Other public facilities?</p>			<p>X</p>	
<p>Discussion: The County has adopted Public Facilities Fees, as well as one for the Fire Facility Fees on behalf of the appropriate fire district, to address impacts to public services. Such fees are required to be paid at the time of building permit issuance. The project was referred to school districts within the area, the Sheriff's office, the local fire authority, Turlock Irrigation District (TID), and the Stanislaus County Environmental Review Committee (ERC). A referral response was not received from the Sheriff's office or the fire district; however, conditions of approval will be added to this project to insure that the roof-only freestall barn will comply with all applicable fire department standards with respect to access and water for fire protection. On-site water storage for fire protection will be further evaluated as part of any future building permit process. Referral responses were received from the ERC and TID. TID submitted non-CEQA comments regarding the need to map and protect existing irrigation facilities as well as District approval of any improvements prior to building permit issuance and/or ground disturbance. The ERC responded with comments and a request for additional information. The additional information has been incorporated into the CEQA project description for this project.</p>				
<p>Mitigation: None.</p>				
<p>References: Referral response from Turlock Irrigation District dated March 27, 2014; referral response from the Stanislaus County Environmental Review Committee dated March 20, 2014; and the Stanislaus County General Plan and Support Documentation¹.</p>				

XV. RECREATION --	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
Discussion: This project is not anticipated to increase significant demands for recreational facilities as such impacts typically are associated with residential development.				
Mitigation: None.				
References: Stanislaus County General Plan and Support Documentation ¹ .				
XVI. TRANSPORTATION/TRAFFIC -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X
Discussion: Significant impacts to traffic and transportation were not identified by reviewing agencies. According to the application, a maximum shift is comprised of eight employees. Employee trips will not increase as the existing dairy barn is currently underutilized. The number of daily customers/visitors on site at peak time is two. Furthermore, the applicant estimates that there will be five truck deliveries/loadings per day, eight hours a day, resulting in an increase in 10 truck traffic trips per month. On-site veterinarian visits, trash service, and deliveries of fuel, seed, and dairy-related chemicals will				

continue to occur once a week. Commodity truck trips will increase from four or five per day to six or seven; milk truck trips will increase from three or four to five or six. Truck trips associated with the exportation of manure will increase by 580 trips per year to 1,070 trips per year. The existing facility has direct access onto S. Commons and S. Washington Roads which are County maintained. The access onto the project site is large enough to offer emergency access and the size of the parcel is large enough to offer adequate on-site parking opportunities. The project was referred to the Stanislaus County Department of Public Works which has requested conditions of approval to address new driveway approaches, the need for an irrevocable offer of dedication, and the need for a grading, drainage, and sediment management plan.

Mitigation: None.

References: Application information; referral response from the Stanislaus County Department of Public Works dated March 12, 2014; email response from Joe Ramos (F&R Ag Services) dated August 21, 2014; and the Stanislaus County General Plan and Support Documentation¹.

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Discussion: Limitations on providing services have not been identified. The RWQCB has reviewed this project and has determined that the NMP and WMP are in accordance with the standards outlined in the General Order. The NMP and WMP are the working documents for the dairy and, as such, implementation of such plans are extremely important to minimize the impact of animal waste on surface and groundwater quality. Impacts to the existing utility and service systems are anticipated to be minimal as a result of this project. Less than significant impacts associated with public utility and irrigation easement(s) will be reflected in the project's conditions of approval. Staff has not received any referral responses indicating limitations on providing services.

The project was referred to TID, DER, ERC, and RWQCB. DER did not respond; however, referral responses were received from the ERC and TID. TID is the irrigation and electric service provider for this project site. TID submitted non-CEQA comments regarding the need to map and protect existing irrigation facilities as well as District approval of any

improvements prior to building permit issuance and/or ground disturbance. The ERC responded with comments regarding the wastewater generated by the facility and a request for additional information. The additional information has been incorporated into the project description for this project. The ERC indicated concerns regarding the lagoon's ability to hold the additional wastewater and whether or not a demand for additional water resources would cause impacts.

The project site is improved with on-site wells which provide drinking and milk room wash water for the facility. Flush lanes utilized in freestall barns are washed out with lagoon water. Solid waste (manure) is separated from liquid waste. Liquid waste is stored in lagoons along with wash water. The WMP for this project indicates that the lagoon has sufficient carrying capacity for the increased liquid waste resulting from the proposed expansion. Wastewater will be applied to 304 acres of cropland. Application of wastewater is strictly monitored by the RWQCB to insure that wastewater does not impact the quality of surface water and groundwater. As a result, dairies are required to submit a NMP and WMP to insure the optimal level of lagoon water is used on crop land without it causing impacts to water resources.

Mitigation: None.

References: Referral response from the Turlock Irrigation District dated March 27, 2014; referral response from the Stanislaus County Environmental Review Committee dated March 20, 2014; referral response from the Regional Water Quality Control Board dated July 18, 2014; Machado (Couco Creek) Dairy Waste Management Plan and Nutrient Management Plan; and the Stanislaus County General Plan and Support Documentation¹.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE --	Potentially Significant Impact	Less Than Significant With Mitigation Included	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion: Review of this project has not indicated any features which might significantly impact the environmental quality of the site and/or the surrounding area. The RWQCB reviews all dairies for this region. No indications were given by RWQCB that the project would have a cumulative impact or substantial adverse effects on human beings, either directly or indirectly.

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¹Stanislaus County General Plan and Support Documentation adopted in October 1994, as amended. Optional and updated elements of the General Plan and Support Documentation: **Agricultural Element** adopted on December 18, 2007; **Housing Element** adopted on August 28, 2012; **Circulation Element** and **Noise Element** adopted on April 18, 2006.

As Approved by the Planning Commission**October 16, 2014**

NOTE: Approval of this application is valid only if the following conditions are met. This permit shall expire unless activated within 18 months of the date of approval. In order to activate the permit, it must be signed by the applicant and one of the following actions must occur: (a) a valid building permit must be obtained to construct the necessary structures and appurtenances; or, (b) the property must be used for the purpose for which the permit is granted. (Stanislaus County Ordinance 21.104.030)

CONDITIONS OF APPROVAL**USE PERMIT APPLICATION NO. PLN2014-0028
MACHADO (COUCO CREEK) DAIRY****Department of Planning and Community Development**

1. Use(s) shall be conducted as described in the application and supporting information (including the plot plan) as approved by the Planning Commission and/or Board of Supervisors and in accordance with other laws and ordinances.
2. Pursuant to Section 711.4 of the California Fish and Game Code (effective January 1, 2014), the applicant is required to pay a California Department of Fish and Wildlife (formerly the Department of Fish and Game) fee at the time of filing a "Notice of Determination." Within five (5) days of approval of this project by the Planning Commission or Board of Supervisors, the applicant shall submit to the Department of Planning and Community Development a check for **\$2,238.25**, made payable to **Stanislaus County**, for the payment of California Department of Fish and Wildlife and Clerk Recorder filing fees.

Pursuant to Section 711.4 (e) (3) of the California Fish and Game Code, no project shall be operative, vested, or final, nor shall local government permits for the project be valid, until the filing fees required pursuant to this section are paid.
3. Developer shall pay all Public Facilities Impact Fees and Fire Facilities Fees as adopted by Resolution of the Board of Supervisors. The fees shall be payable at the time of issuance of a building permit for any construction in the development project and shall be based on the rates in effect at the time of building permit issuance.
4. The applicant/owner is required to defend, indemnify, or hold harmless the County, its officers, and employees from any claim, action, or proceedings against the County to set aside the approval of the project which is brought within the applicable statute of limitations. The County shall promptly notify the applicant of any claim, action, or proceeding to set aside the approval and shall cooperate fully in the defense.
5. All exterior lighting shall be designed (aimed down and toward the site) to provide adequate illumination without a glare effect. This shall include, but not be limited to, the use of shielded light fixtures to prevent skyglow (light spilling into the night sky) and the installation of shielded fixtures to prevent light trespass (glare and spill light that shines onto neighboring properties).
6. Pursuant to Section 404 of the Clean Water Act, prior to construction, the developer shall be responsible for contacting the US Army Corps of Engineers to determine if any "wetlands,"

- "waters of the United States," or other areas under the jurisdiction of the Corps of Engineers are present on the project site, and shall be responsible for obtaining all appropriate permits or authorizations from the Corps, including all necessary water quality certifications, if necessary.
7. Any construction resulting from this project shall comply with standardized dust controls adopted by the San Joaquin Valley Air Pollution Control District (SJVAPCD) and may be subject to additional regulations/permits, as determined by the SJVAPCD.
 8. A sign plan for all proposed on-site signs indicating the location, height, area of the sign(s), and message must be approved by the Planning Director or appointed designee(s) prior to installation.
 9. Pursuant to Sections 1600 and 1603 of the California Fish and Game Code, prior to construction, the developer shall be responsible for contacting the California Department of Fish and Wildlife (formerly the Department of Fish and Game) and shall be responsible for obtaining all appropriate stream-bed alteration agreements, permits, or authorizations, if necessary.
 10. The Department of Planning and Community Development shall record a Notice of Administrative Conditions and Restrictions with the County Recorder's Office within 30 days of project approval. The Notice includes: Conditions of Approval/Development Standards and Schedule; any adopted Mitigation Measures; and a project area map.
 11. Pursuant to the federal and state Endangered Species Acts, prior to construction, the developer shall be responsible for contacting the US Fish and Wildlife Service and the California Department of Fish and Wildlife (formerly the Department of Fish and Game) to determine if any special status plant or animal species are present on the project site, and shall be responsible for obtaining all appropriate permits or authorizations from these agencies, if necessary.
 12. Pursuant to State Water Resources Control Board Order 99-08-DWQ and National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, prior to construction, the developer shall be responsible for contacting the California Regional Water Quality Control Board to determine if a "Notice of Intent" is necessary, and shall prepare all appropriate documentation, including a Storm Water Pollution Prevention Plan (SWPPP). Once complete, and prior to construction, a copy of the SWPPP shall be submitted to the Stanislaus County Department of Public Works.
 13. Should any archaeological or human remains be discovered during development, work shall be immediately halted within 150 feet of the find until it can be evaluated by a qualified archaeologist. If the find is determined to be historically or culturally significant, appropriate mitigation measures to protect and preserve the resource shall be formulated and implemented. The Central California Information Center shall be notified if the find is deemed historically or culturally significant.
 14. The facility operator shall use best management practices for odor and vector control at all times. If the operator is unable to control flies, then the operator shall retain the services of a licensed vector control service.

Department of Public Works

15. An encroachment permit shall be taken out for any new driveway or for any work to be done in the Faith Home Road, Commons Road, Bradbury Road, or Washington Road rights-of-way. Any new driveway location will have to be approved by Public Works.
16. Faith Home Road, Washington Road, and Bradbury Road are all classified as 60-foot Collector Roadways. Commons Road is classified as a 60-foot Local Roadway. The current right-of-way is 40 or 50 feet wide along the frontages of the parcels associated with this project. Since the project only includes the installation of a shade structure over an existing free-stall barn and there will not be a significant increase in traffic traveling over County maintained roadways, an Irrevocable Offer of Dedication is not required at this time. If a subsequent permit is submitted, an Irrevocable Offer of Dedication will be required for the parcel where the work is being installed. A subsequent permit will include a building permit for a new structure, a discretionary permit (Staff Approval, Use Permit, or Rezone), or a grading permit. The required $\frac{1}{2}$ width of Faith Home Road, Commons Road, Bradbury Road or Washington Road will be 30-feet from the centerline of the roadway towards the property/parcel. If 30-feet of the road right-of-way does not exist, then the remainder 30-feet shall be dedicated with an Irrevocable Offer of Dedication for the entire parcel frontage.
 - A. Faith Home Road will be for 30-feet east of the centerline on the parcel's frontage.
 - B. Washington Road will be for 30-feet west of the centerline on the parcel's frontage.
 - C. Commons Road will be for 30-feet east or west of the centerline on the parcel's frontage, dependent on the location of the permitted work.
 - D. Bradbury Road will be for 30-feet north or south of the parcel's frontage, dependent on the location of the permitted work.
17. No parking, loading or unloading of vehicles will be permitted within the County Road right-of-way.
18. A grading, drainage, and erosion/sediment control plan for the project site shall be submitted before any building permit for the site is issued that creates a new or bigger building footprint on this parcel. Public Works will review and approve the drainage calculations. The grading and drainage plan shall include the following information:
 - A. The plan shall contain enough information to verify that all runoff will be kept from going onto adjacent properties and the Stanislaus County road right-of-way.
 - B. The grading, drainage, and erosion/sediment control plan shall comply with the current State of California National Pollutant Discharge Elimination System (NPDES) General Construction Permit.
 - C. The grading, drainage, and associated work shall be accepted by Stanislaus County Public Works prior to a final inspection or occupancy, as required by the building permit.
 - D. The applicant of the building permit shall pay the current Stanislaus County Public Works weighted labor rate for the plan review of the building and/or grading plan.

- E. The applicant of the building permit shall pay the current Stanislaus County Public Works weighted labor rate for all on-site inspections. The Public Works inspector shall be contacted 48 hours prior to the commencement of any grading or drainage work on-site.

Building Permits Division

19. Building permits are required and the project must conform with the California Code of Regulations, Title 24.

Turlock Irrigation District (TID)

20. TID shall review and approve all maps and plans of the project. Any improvements to this property which impact irrigation facilities shall be subject to TID approval and meet all District standards and specifications.
21. There is an existing 16-inch discharge pipe associated with TID Pump 149 that is located about 720 feet east of and parallel to Commons Road within APN: 044-040-041. The pipeline crosses perpendicular to the existing and proposed freestall barn and discharges into Lateral 5. Before applying for a building permit for the proposed freestall barn, the facility operator/developer shall submit plans detailing the existing irrigation facilities, relative to the proposed site improvements, in order for the District to determine specific impacts and requirements. A copy of the TID approved site plan and any resulting conditions and/or construction requirements shall be submitted with the Building Permit for the proposed freestall barn.
22. Electric utility distribution maps show existing facilities within and near the project area. If any of the facilities need relocation, the owner/developer must apply for a facility change for any pole or electrical facility relocation. Facility changes are performed at developer's expense.

Regional Water Quality Control Board (RWQCB)

23. The facility operator shall, at all times, implement and comply with all waste and nutrient management practices and waste discharge requirements as approved by the RWQCB; including future modifications to the Waste Management Plan (WMP) and Nutrient Management Plan (NMP) in accordance with RWQCB review, permitting, and approval.
24. This project is subject to Individual Waste Discharge Requirements as determined by RWQCB. The existing dairy is allowed 2,400 mature cows under the Dairy General Order. In order to expand to 3,487 mature cows, as requested as a part of this project, the facility operator shall obtain and comply with the Individual WDR as required.

San Joaquin Valley Air Pollution Control District (SJVAPCD)

25. The proposed project may be subject to the following District Rules:
- Regulation VIII (Fugitive PM10 Prohibitions);
 - Rule 4102 (Nuisance) – This rule applies to any source operation that emits or may emit air contaminants or other materials. In the event that the project or construction of the project creates a public nuisance, it could be in violation and be subject to District enforcement action;

- Rule 4601 (Architectural Coatings);
 - Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations);
 - Rule 4002 (National Emission Standards for Hazardous Air Pollutants); and
 - Rule 4550 (Conservation Management Practices) – The purpose of this rule is to limit fugitive dust emissions from agricultural operation sites. These sites include areas of crop production, animal feeding operations and unpaved roads/equipment areas. The District's CMP handbook can be found online at the District's website.
26. A Rule 4570 (Confined Animal Facilities) application shall be submitted to the District. District Rule 4570 was adopted by the District's Governing Board on June 15, 2006. Dairies with greater than or equal to 1,000 milk cows are subject to the requirements of District Rule 4570.
27. This list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is encouraged to contact the District's Small Business Office. Current District rules can also be found online at www.valleyair.org/rules/1ruleslist.htm.

*Please note: If Conditions of Approval/Development Standards are amended by the Planning Commission or Board of Supervisors, such amendments will be noted in the upper right-hand corner of the Conditions of Approval/Development Standards; new wording is in **bold**, and deleted wording will have a ~~line through it~~.*