STANISLAUS COUNTY PLANNING COMMISSION

April 19, 2018

STAFF REPORT

USE PERMIT APPLICATION NO. PLN2016-0132
ROBERT GIOLETTI & SONS DAIRY, INC.

REQUEST: TO EXPAND AN EXISTING DAIRY OPERATION, LOCATED ON THREE PARCELS (56.2, 28.16, AND 28.62 ACRES IN SIZE), CURRENTLY PERMITTED THROUGH THE CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD TO HOUSE A MAXIMUM OF 2,760 MATURE COWS AND 250 SUPPORT STOCK, TO A NEW MAXIMUM OF 3,800 MATURE COWS AND 890 SUPPORT STOCK.

APPLICATION INFORMATION

Applicant/Property owner:	Robert Gioletti & Sons Dairy, Inc.
Agent:	Joe Ramos, F&R Ag Services
Location:	9769 & 10213 West Main Street, 118, 132, & 136 N. Blaker Road, on the northeast corner of W. Main Street and N. Blaker Road, between Central Avenue and N. Blaker Road, west of the City of Turlock.
Section, Township, Range:	15-5-9
Supervisorial District:	Two (Supervisor Chiesa)
Assessor's Parcel:	022-041-006, 022-041-013, 022-041-012
Referrals:	See Exhibit I Environmental Review Referrals
Area of Parcel(s):	112.98 acres (56.2, 28.16, and 28.62 acres)
Water Supply:	Private well
Sewage Disposal:	Private septic-leach system
Existing Zoning:	A-2-40 (General Agriculture)
General Plan Designation:	AG (Agriculture)
Sphere of Influence:	N/A
Community Plan Designation:	N/A
Williamson Act Contract No.:	1973-1422, 1978-3118, & 1978-3120
Environmental Review:	Negative Declaration
Present Land Use:	Dairy with animal shelter structures, milking parlor, settling ponds, and a wastewater storage pond; four single-family dwellings; row crops; and an almond orchard.
Surrounding Land Use:	The property is surrounded by agricultural parcels, planted in row crops and orchards, with scattered single-family dwellings. A number of dairies are located within a two mile radius of the project site. The Union Pacific Railroad runs along the eastern property line.

RECOMMENDATION

Staff recommends the Planning Commission approve this request based on the discussion below and on the whole of the record provided to the County. If the Planning Commission decides to approve the project, Exhibit A provides an overview of all of the findings required for project approval, which includes use permit findings.

PROJECT DESCRIPTION

The project is a request to expand an existing dairy operation, located on three parcels (56.2, 28.16, and 28.62 acres in size), currently permitted through the Central Valley Regional Water Quality Control Board(CVRWQCB) to house a maximum of 2,760 mature cows (which are milk producing cows) and 250 support stock (which are heifers who have not yet had their first calf and have not yet produced milk), to a new maximum of 3,800 mature cows and 890 support stock. This request includes the addition of corrals, two free-stall barns (94,500 square feet, and 60,000 square feet in size), two 9,000 square foot special needs barns, a 2,880 square foot addition to an existing special needs barn (which houses heifers from 21 days prior to calving to 16 days after calving and high-risk lactating cows), and a calf hutch with flush lanes. The feed for the animals is stored on two parcels 37.84 acres in size (APNs: 022-041-010 and 022-041-011), located a quarter of a mile to the west of the project site. The nutrient waste produced by the herd will be utilized to fertilize approximately 700 acres of irrigated cropland farmed by the applicant.

SITE DESCRIPTION

The site is on the northeast corner of W. Main Street and N. Blaker Road (9769 & 10213 West Main Street, 118, 132, & 136 N. Blaker Road), west of the City of Turlock. The property is surrounded by agricultural parcels, planted in row crops and orchards, with scattered single-family dwellings. A number of dairies are located within a two mile radius of the project site. The Union Pacific Railroad runs along the eastern property line. (See Exhibit B – *Maps*.)

The site is served by a private well and private septic-leach system and is currently improved with numerous structures associated with the dairy operation, including animal shelter structures, a milking parlor, settling ponds, and a wastewater storage pond, and also includes three single-family dwellings, row crops and an almond orchard.

ISSUES

This item was originally scheduled to be considered on March 15, 2018, and was then continued to the April 19, 2018, Planning Commission meeting to allow the applicant time to provide additional information requested by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The applicant has since provided the requested additional information and the SJVAPCD has provided a project response letter verifying that the proposed project falls below the District's thresholds of significance for annual emissions of criteria pollutants. This response is consistent with the Initial Study prepared for the project, which indicated that the project will have a less than significant impact on Air Quality. (See Exhibit D – *Initial Study* and Exhibit G - *Project referral response letter received from the San Joaquin Valley Air Pollution Control District, dated March 27, 2018.*)

No other issues have been identified as a part of this request. Standard conditions of approval have been added to the project.

GENERAL PLAN CONSISTENCY

The site is currently designated "Agriculture" in the Stanislaus County General Plan. The agricultural designation recognizes the value and importance of agriculture by acting to preclude incompatible urban development within agricultural areas. This designation establishes agriculture as the primary use in land so designated, but allows dwelling units, limited agriculturally related commercial services, agriculturally related light industrial uses, and other uses which by their unique nature are not compatible with urban uses, provided they do not conflict with the primary use.

The proposed project is addressed by the multiple goals, policies, and implementation measures of the Land Use and Agriculture Elements of the General Plan. Goal One, Policy Two of the Land Use Element requires that land designated Agriculture be restricted to uses that are compatible with agricultural practices. Goal Two, Policy Fourteen, Implementation Measure 1 of the Land Use Element requires all development proposals that require discretionary action to be carefully reviewed to ensure that approval will not adversely affect an existing agricultural area. Goal Three, Policy Seventeen of the Land Use Element states that, "Agriculture, as the primary industry of the County, shall be promoted and protected". Goal 1 of the Agricultural Element is to strengthen the agricultural sector of our economy.

Policy 1.10 of the Agricultural Element requires buffers between agriculture operations and non-agricultural uses in order to minimize conflicts. In support of this Policy, Buffer and Setback Guidelines (Appendix A of the Agricultural Element) have been adopted to assist in protecting the long-term health of local agriculture by minimizing conflicts resulting from normal agricultural practices as a consequence of new or expanding uses approved in or adjacent to the A-2 (General Agriculture) zoning district. The guidelines state that all low people intensive projects shall incorporate a minimum 150-foot wide buffer setback. Permitted uses within a buffer area shall include: Public roadways, utilities, drainage facilities, rivers and adjacent riparian areas, landscaping, parking lots, and similar low-people intensive uses. Walking and bike trails shall be allowed within buffers setback areas provided they are designed without rest areas. Dairies are included in the Agricultural Element's definition of "Agriculture" and are considered to be permitted agricultural uses. Accordingly, an agricultural buffer would not be required between surrounding agricultural uses and the proposed project, as the proposed project is also considered to be an agricultural use.

Staff believes the proposed use is compatible with the General Plan policies listed above as it is an agricultural use.

ZONING ORDINANCE CONSISTENCY

The site is currently zoned A-2-40 (General Agriculture). It is the intent of A-2 zoning district to support and enhance agriculture as the predominant land use in the unincorporated areas of Stanislaus County. The procedures contained within the A-2 zoning district are specifically established to ensure that all land uses are compatible with agriculture.

Confined Animal Facilities (CAFs), which include dairies, are considered to be permitted agricultural uses; however, a use permit is required for new or expanding CAFs requiring a new or modified permit waiver, order, or Waste Discharge Requirements (WDRs) from the Regional Water Quality Control Board (RWQCB), where the issuance of such permit, waiver, order, or WDR requires compliance with California Environmental Quality Act (CEQA) (Section 21.20.030 (F) of the Stanislaus County Zoning Code).

The County adopted the use permit requirement in 2003 in order to allow the County to facilitate the environmental review (in accordance with CEQA) required for issuance of any permit, waiver, order, or WDR by the RWQCB.

The proposed project is only required to obtain a use permit because the RWQCB has determined that the proposed dairy is subject to issuance of WDRs requiring CEQA review. WDRs are State regulations pertaining to the treatment, storage, processing or disposal of solid waste.

Any project required to obtain a use permit is subject to the following finding for approval:

1. *The establishment, maintenance, and operation of the proposed use or building applied for is consistent with the General Plan designation of "Agriculture" and will not, under the circumstances of the particular case, be detrimental to the health, safety, and general welfare of persons residing or working in the neighborhood of the use and that it will not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.*

The Regional Water Quality Control Board (RWQCB) monitors dairies for compliance with their Nutrient Management Plans (NMP), Waste Management Plans (WMP), and WDRs. The applicant submitted both an NMP and WMP to RWQCB, which were both deemed complete and acceptable by the RWQCB. (See Exhibit E - *Waste Management Plan* and Exhibit F - *Nutrient Management Plan*.) The applicant is in the process of updating their WDRs to reflect the dairy expansion.

CAFs are agricultural uses protected by the County's Right-to-Farm Ordinance which was adopted in 1991. The Ordinance states that:

> *The County of Stanislaus recognizes and supports the right-to-farm agricultural lands in a manner consistent with accepted customs and standards. Residents of property on or near agricultural land should be prepared to accept the inconveniences or discomforts associated with agricultural operations, including but not limited to noise, odors, flies, fumes, dust, the operation of machinery of any kind during any 24-hour period (including aircraft), the storage and disposal of manure, and the application by spraying or otherwise of chemical fertilizers, soil amendments, herbicides, and pesticides. Stanislaus County has determined that inconveniences or discomforts associated with such agricultural operations shall not be considered to be a nuisance if such operations are consistent with accepted customs and standards.*

The project site is enrolled in three separate Williamson Act Contracts Nos. 1973-1422, 1978-3118, & 1978-3120. Section 21.20.045(A) of the A-2 zoning district requires that all uses requiring use permits that are approved on Williamson Act contracted lands shall be consistent with the following three principles of compatibility:

1. *The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in the A-2 zoning district;*

2. *The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in the A-2 zoning district. Uses that significantly displace agricultural operations on the subject contracted parcel or parcels may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping; and*

3. The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.

Approval of this project will not significantly compromise the long-term productive agricultural capability of the subject property or of surrounding agricultural operations. Nor will the proposed project result in new facilities limiting the return of the property to agricultural production in the future, or in the removal of any adjacent contracted land from agricultural or open space use.

The project was referred to the State Department of Conservation during the Early Consultation and 30-day Initial Study reviews and no comments were received.

Staff believes the necessary findings for approval of this project can be made. With conditions of approval in place, there is no indication that, under the circumstances of this particular case, the proposed project will be detrimental to the health, safety, and general welfare of persons residing or working in the neighborhood of the use or that it will be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County. Dairy facilities are an important component of the agricultural economy in Stanislaus County. There is no indication this project will interfere or conflict with other agricultural uses in the area.

ENVIRONMENTAL REVIEW

Pursuant to the California Environmental Quality Act (CEQA), the proposed project was circulated to all interested parties and responsible agencies for review and comment and no significant issues were raised. (See Exhibit I - *Environmental Review Referrals*.) A Negative Declaration has been prepared for approval prior to action on the use permit itself as the project will not have a significant effect on the environment. (See Exhibit H - *Negative Declaration*.) Conditions of approval reflecting referral responses have been placed on the project. (See Exhibit C - *Conditions of Approval*.)

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Note: Pursuant to California Fish and Game Code Section 711.4, all project applicants subject to the California Environmental Quality Act (CEQA) shall pay a filing fee for each project; therefore, the applicant will further be required to pay **$2,337.75** for the California Department of Fish and Wildlife (formerly the Department of Fish and Game) and the Clerk Recorder filing fees. The attached Conditions of Approval ensure that this will occur.

Contact Person: Kristin Doud, Senior Planner, (209) 525-6330

Attachments:

Exhibit A - Findings and Actions Required for Project Approval
Exhibit B - Maps
Exhibit C - Conditions of Approval
Exhibit D - Initial Study
Exhibit E - Waste Management Plan
Exhibit F - Nutrient Management Plan
Exhibit G - Project referral response letter received from the San Joaquin Valley Air Pollution Control District, dated March 27, 2018
Exhibit H - Negative Declaration
Exhibit I - Environmental Review Referral

Exhibit A
Findings and Actions Required for Project Approval

1. Adopt the Negative Declaration pursuant to CEQA Guidelines Section 15074(b), by finding that on the basis of the whole record, including the Initial Study and any comments received, that there is no substantial evidence the project will have a significant effect on the environment and that the Negative Declaration reflects Stanislaus County's independent judgment and analysis.

2. Order the filing of a Notice of Determination with the Stanislaus County Clerk-Recorder's Office pursuant to Public Resources Code Section 21152 and CEQA Guidelines Section 15075.

3. Find that:

   (a) The establishment, maintenance, and operation of the proposed use or building applied for is consistent with the General Plan designation of "Agriculture" and will not, under the circumstances of the particular case, be detrimental to the health, safety, and general welfare of persons residing or working in the neighborhood of the use and that it will not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

   (b) The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in the A-2 zoning district.

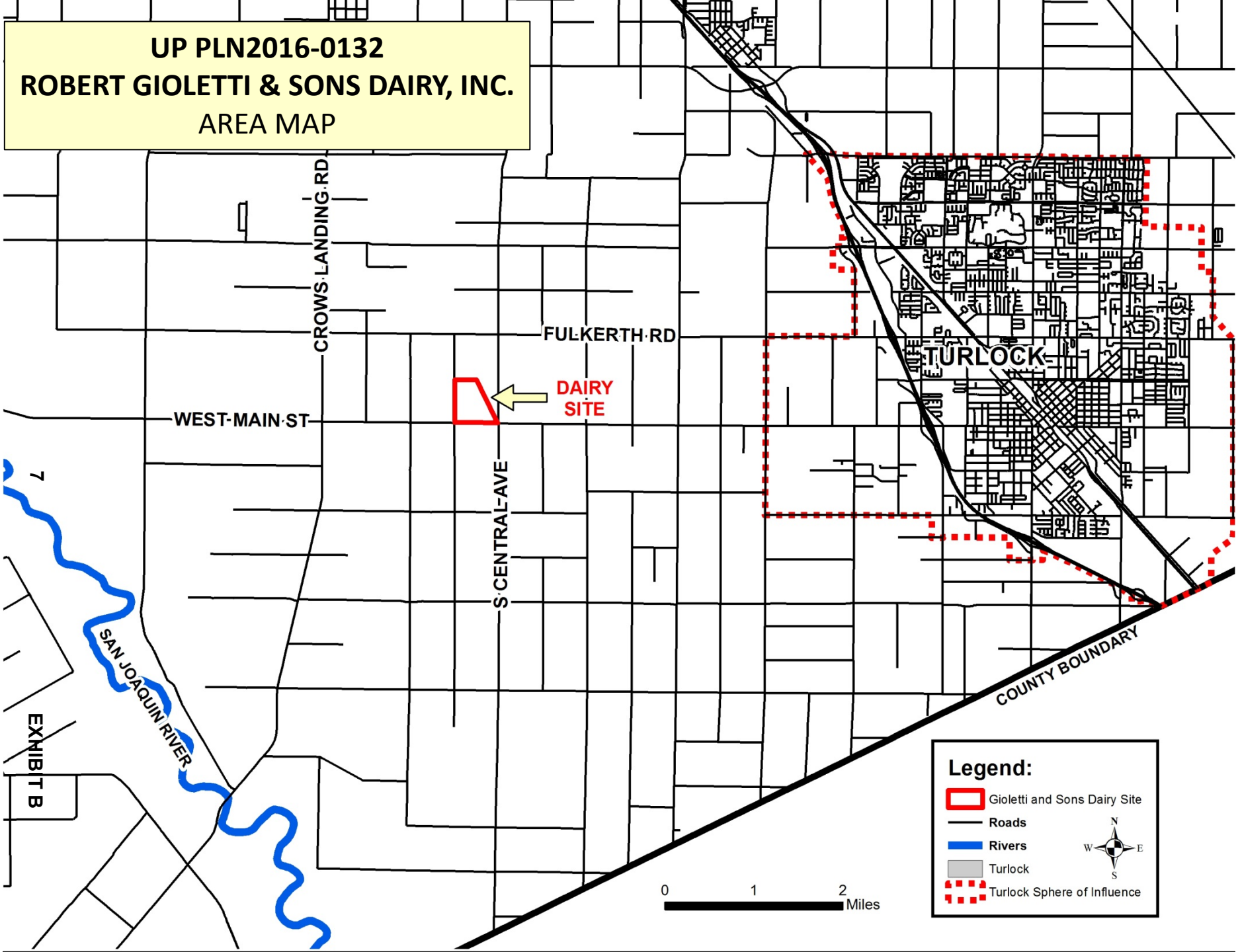
   (c) The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in the A-2 zoning district. Uses that significantly displace agricultural operations on the subject contracted parcel or parcels may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping.

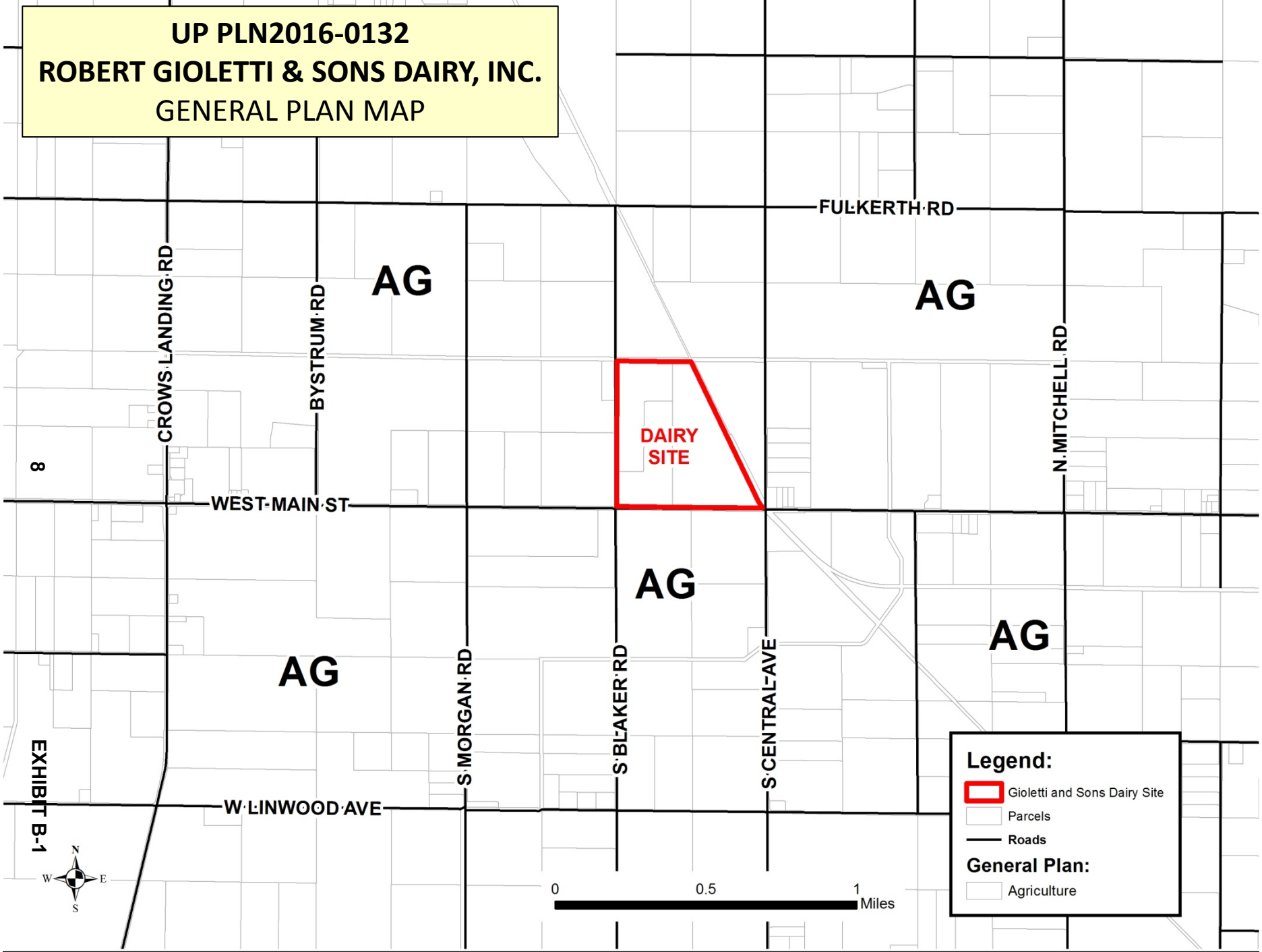
   (d) The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.

   (e) The project will increase activities in and around the project area, and increase demands for roads and services, thereby requiring dedication and improvements.

4. Approve Use Permit Application No. PLN2016-0132 – Gioletti & Sons Dairy, Inc., subject to the attached Conditions of Approval.

UP PLN2016-0132
ROBERT GIOLETTI & SONS DAIRY, INC.
AREA MAP




UP PLN2016-0132
ROBERT GIOLETTI & SONS DAIRY, INC.
GENERAL PLAN MAP
FULKERTH RD
CROWS LANDING RD
BYSTRUM RD
S MORGAN RD
S BLAKER RD
S CENTRAL AVE
N MITCHELL RD
WEST MAIN ST
W LINWOOD AVE
8
AG
AG
AG
AG
AG
DAIRY SITE
EXHIBIT B-1
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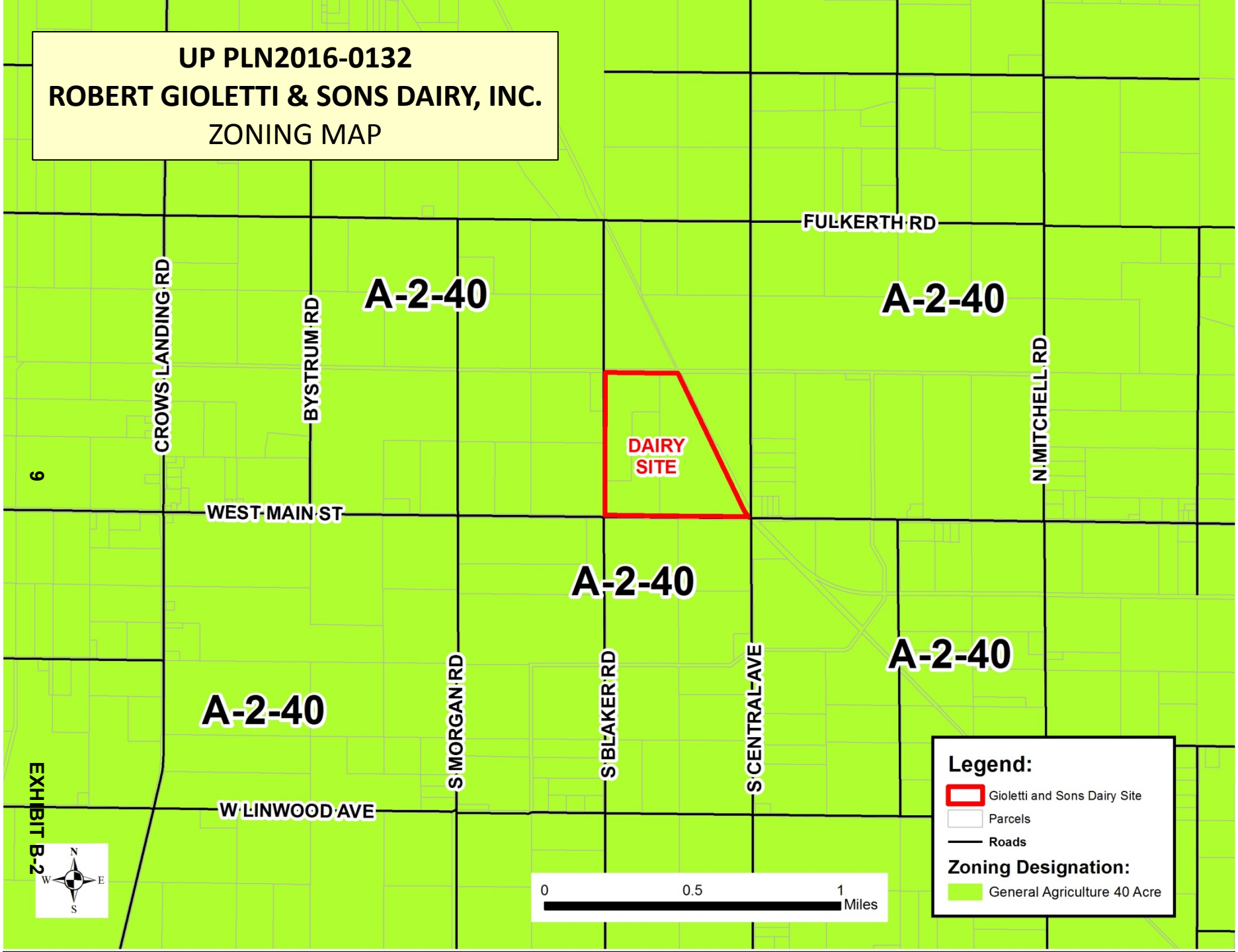
1
Miles
Legend:
Gioletti and Sons Dairy Site
Parcels
Roads
General Plan:
Agriculture


UP PLN2016-0132
ROBERT GIOLETTI & SONS DAIRY, INC.
ZONING MAP
FULKERTH RD
CROWS LANDING RD
BYSTRUM RD
S MORGAN RD
S BLAKER RD
S CENTRAL AVE
N MITCHELL RD
WEST MAIN ST
W LINWOOD AVE
A-2-40
A-2-40
A-2-40
A-2-40
A-2-40
DAIRY SITE
Legend:
Gioletti and Sons Dairy Site
Parcels
Roads
Zoning Designation:
General Agriculture 40 Acre
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1
Miles
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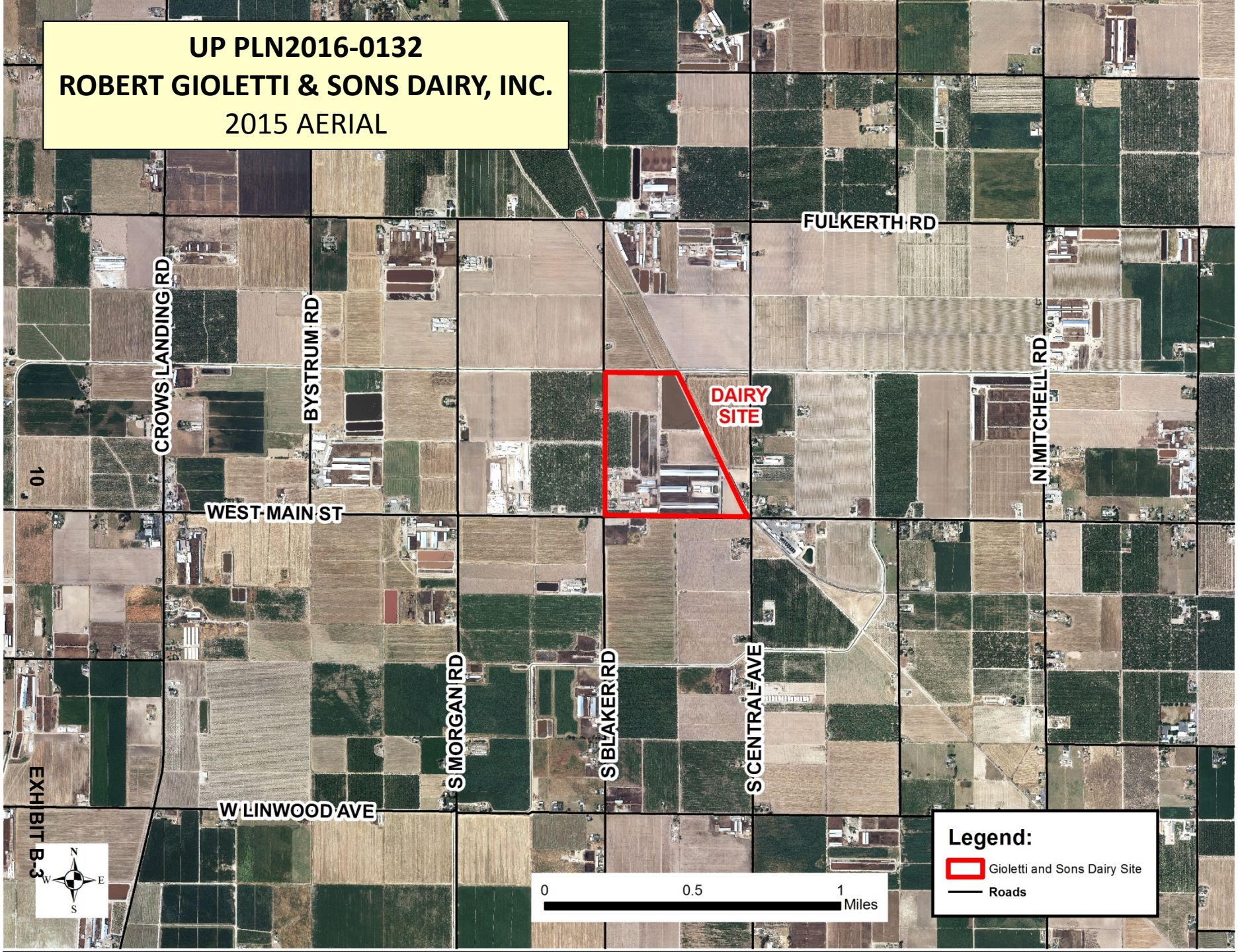
EXHIBIT B-2
9


UP PLN2016-0132
ROBERT GIOLETTI & SONS DAIRY, INC.
2015 AERIAL
FULKERTH RD
CROWS LANDING RD
BYSTRUM RD
N MITCHELL RD
DAIRY SITE
10
WEST MAIN ST
S MORGAN RD
S BLAKER RD
S CENTRAL AVE
W LINWOOD AVE
EXHIBIT B-3
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Miles
Legend:
Gioletti and Sons Dairy Site
Roads

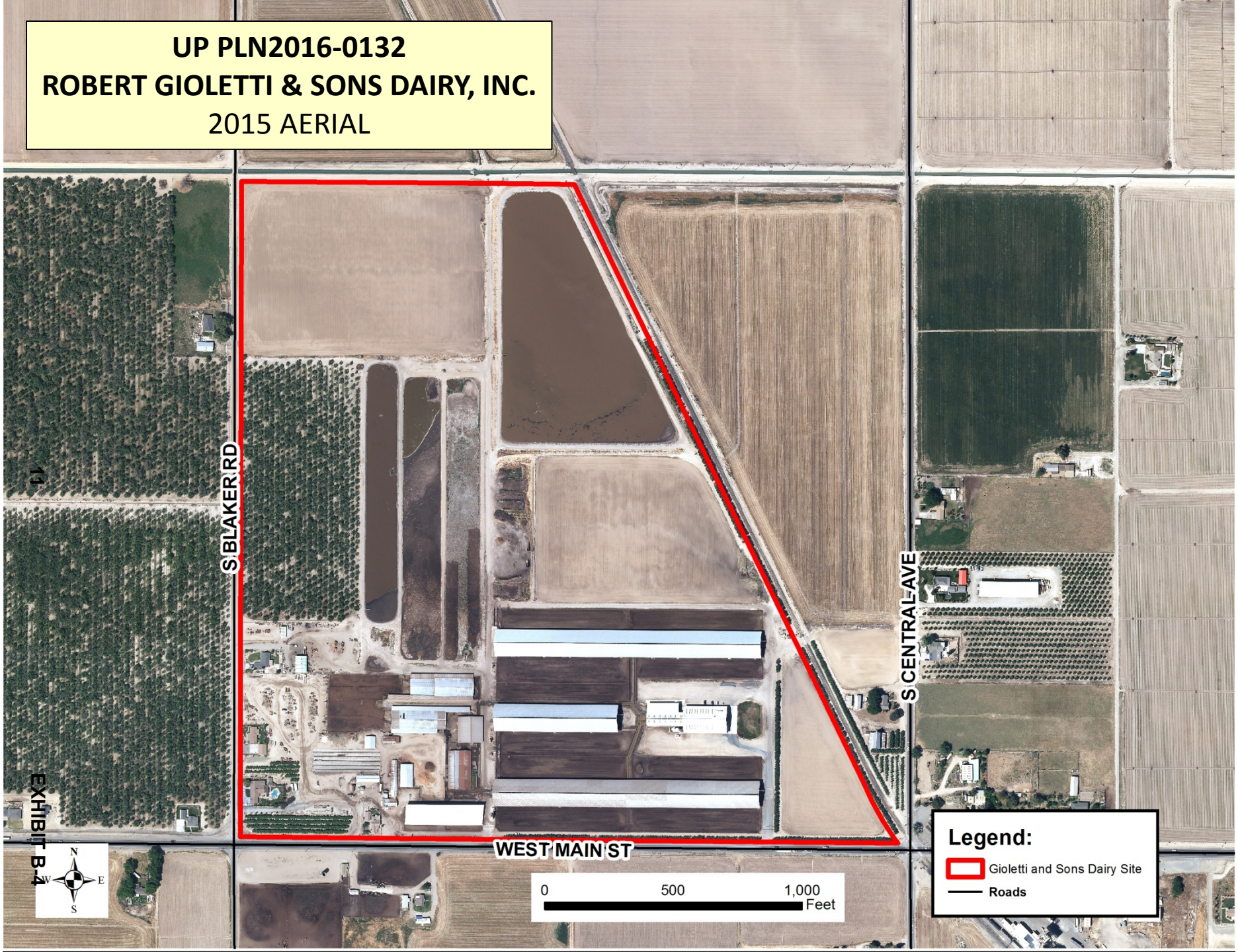
UP PLN2016-0132
ROBERT GIOLETTI & SONS DAIRY, INC.
2015 AERIAL
S BLAKER RD
S CENTRAL AVE
WEST MAIN ST
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EXHIBIT B-4
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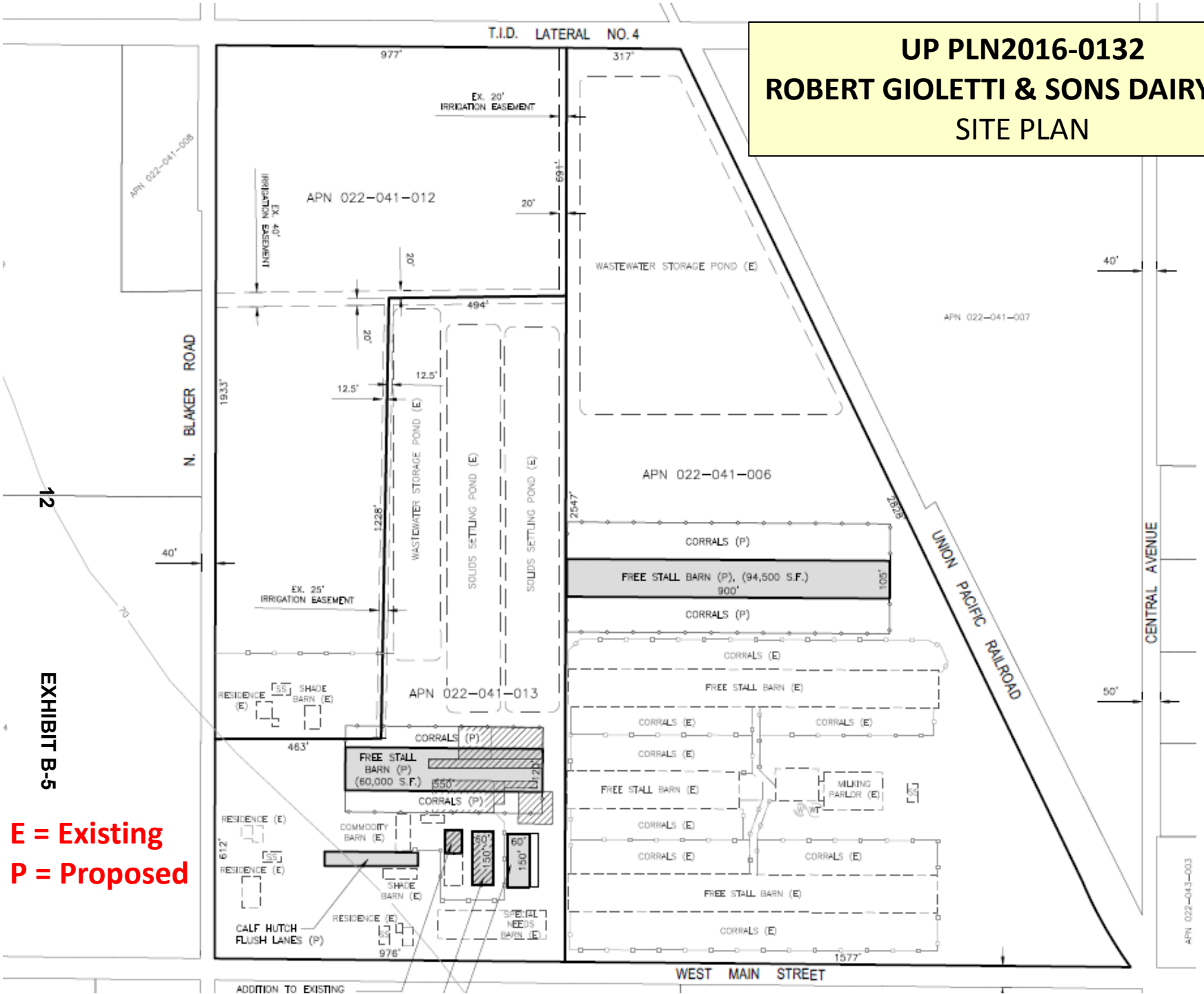
Legend:
Gioletti and Sons Dairy Site
Roads

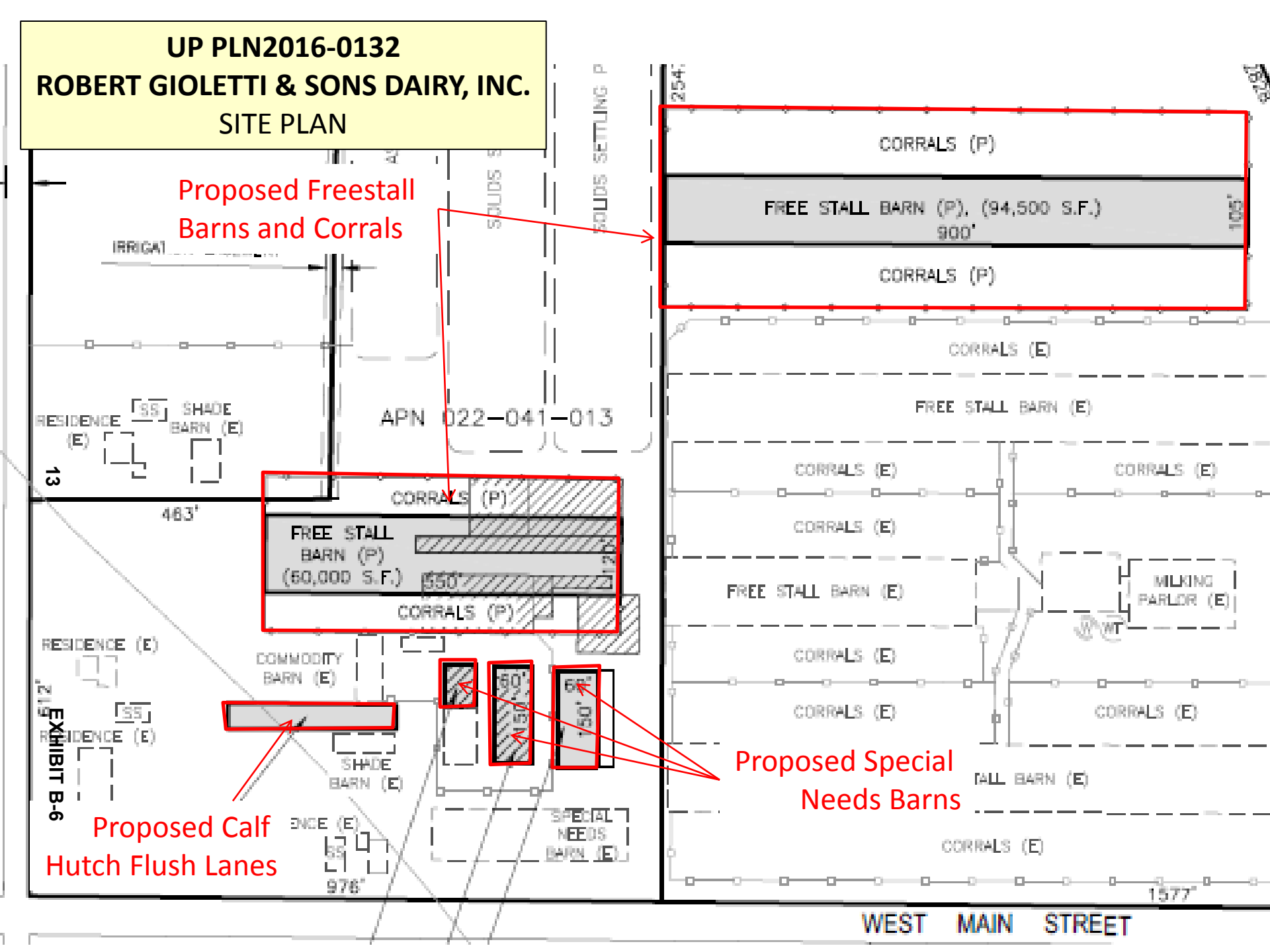
UP PLN2016-0132
ROBERT GIOLETTI & SONS DAIRY, INC.
SITE PLAN



E = Existing

P = Proposed

UP PLN2016-0132
ROBERT GIOLETTI & SONS DAIRY, INC.
SITE PLAN



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. PLN 2016-0132
GIOLETTI & SONS DAIRY, INC.

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, 2017), 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 **$2,337.75**, 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 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 California 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 archeological 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. Construction activities shall not resume in the area until an on-site archeological mitigation program has been approved by a qualified archeologist. The Central California Information Center shall be notified if the find is deemed historically or culturally significant.

Department of Public Works

14. The driveway that sees the most truck traffic on and off of West Main Street shall be paved, with asphalt, and installed per Stanislaus County Public Works Standards and Specifications for a Major and Collector Road. Public Works shall approve the location, width, and materials of any new driveway approaches on any County-maintained roadway.

15. The applicant shall obtain an encroachment permit prior to any work being done in the Stanislaus County road right-of-way.

16. Prior to issuance of any building or grading permit for the property, an Irrevocable Offer of Dedication for West Main Street shall be submitted to and approved by Public Works. West Main Street is classified as a 135 foot Rural Principal Arterial Roadway. The required ½ width of West Main Street is 67.5 feet north of the centerline of the roadway. Currently there is an existing right-of-way of 20 feet on the north side of the centerline. This means that 47.5 feet of the road right-of-way shall be dedicated with an Irrevocable Offer of Dedication for the parcel frontage.

17. Prior to issuance of any building or grading permit for the property, an Irrevocable Offer of Dedication for N. Blaker Road shall be submitted to and approved by Public Works. N. Blaker Road is classified as a 60 foot Local Roadway. The required ½ width of N. Blaker Road is 30 feet east of the centerline of the roadway. Currently there is an existing right-of-way of 20 feet on the east side of the centerline. This means that 10 feet of the road right-of-way shall be dedicated with an Irrevocable Offer of Dedication for the parcel frontage.

18. Prior to issuance of any building or grading permit, an Irrevocable Offer of Dedication shall be made for a chord of a 35 foot radius at the corner of West Main Street and N. Blaker Road.

19. A grading, drainage, and erosion/sediment control plan for the project site shall be submitted prior to issuance of a building permit for the site or prior to installation of the calf hutch flush lanes. Public Works shall review and approve the drainage calculations. The grading and drainage plan shall include the following information:

    A. Drainage calculations shall be prepared as per the Stanislaus County Standards and Specifications that are current at the time the permit is issued.

    B. 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.

    C. The grading, drainage, and erosion/sediment control plan shall comply with the current Stanislaus County 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.

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

20. No parking, loading, or unloading of vehicles shall be permitted within the county road right-of-way.

Building Permits Division

21. Building permits are required and the project must conform with the most current adopted version of the California Code of Regulations, Title 24. Dairy barns and accessory structures are classified as agricultural buildings per Appendix-C of Part 2, Volume 2, of the California Building Code and Chapter 16.05.040 of Stanislaus County Code.

Turlock Irrigation District (TID)

22. Any development occurring within the District's boundary that impacts irrigation and electric facilities shall meet District's requirements.

23. The existing Revocable License Agreement with the District, which allows the use of Improvement District No. 331 facilities to transport dairy nutrient water to irrigated crops, shall be maintained in compliance with the existing Agreement terms and conditions; specifically, the requirement that no nutrient water may adversely affect other improvement district landowners and that said nutrient water shall not enter the District canal system.

24. The applicant uses several private irrigation pipelines to transport nutrient water to other fields. These private facilities shall be operated properly, and have appropriate backflow devices, to ensure that no nutrient water enters the District's canal or comes into contact with the side gates on the canal.

California Regional Water Quality Control District (RWQCD)

25. Within six months of project approval, the applicant shall complete Individual Waste Discharge Requirements (WDR) for the project through the Central Valley Regional Water Quality Control Board (CVRWQCB). The applicant and/or property owner shall, at all times, implement and comply with all waste management practices as approved by the Regional Water Quality Control Board (RWQCB); including future modification to Nutrient Management Plan (NMP) and Waste Management Plan (WMP) in accordance with RWQCB review, permitting, and approval.

26. Project shall obtain all applicable permits in accordance with the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs). All wastewater shall comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan.

27. Prior to ground disturbance or issuance of a building permit, the Central Valley Regional Quality Control Board shall be consulted to obtain any necessary permits and to implement any necessary measures, including but not limited to Construction Storm Water General Permit, Phase I and II Municipal Separate Storm Sewer System (MS4) Permits, Industrial Storm Water General Permit, Clean Water Act Section 404 Permit, Clean Water Act Section 401 Permit (Water Quality Certification), Waste Discharge Requirements, Dewatering Permit, Low or Limited Threat General NPDES Permit, NPDES Permit or any other applicable Regional Water Quality Control Board permit.

San Joaquin Valley Air Pollution Control District

28. The proposed project will be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and will require District permits. Prior to the start of construction the project proponent shall submit to the District an application for an Authority to Construct (ATC).

29. The proposed project is subject to all applicable District Rules. These may include the following:

- 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.

30. If applicable, a Rule 4570 Confined Animal Facilities (CAFs) 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 500 milk cows are subject to the requirements of District Rule 4570.

31. Within six months of project approval, the operator shall complete a Permit to Operate (PTO), through the Air District.

32. The project shall comply with any existing or future Best Management Practices adopted by the SJVAPCD.

33. During construction, off-road construction fleets that can achieve fleet average emissions equal to or cleaner than Tier III emission standards, as set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 of the Federal Code of Regulations, shall be utilized. This can be achieved through any combination of uncontrolled engines and engines complying with Tier III and above engine standards.

****

*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.~~*

Stanislaus County
Striving to be the Best

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

1010 10th Street, Suite 3400, Modesto, CA 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. PLN2016-0132 – Robert Gioletti & Sons Dairy, Inc.
2.	**Lead agency name and address:**	Stanislaus County 1010 10th Street, Suite 3400 Modesto, CA 95354
3.	**Contact person and phone number:**	Kristin Doud, Senior Planner (209) 525-6330
4.	**Project location:**	9769 & 10213 West Main Street, 118, 132, & 136 N. Blaker Road, on the northeast corner of West Main Street and N. Blaker Road, between Central Avenue and N. Blaker Road, west of the city of Turlock (APN: 022-041-006, 022-041-013, 022-041-012).
5.	**Project sponsor's name and address:**	Robert Gioletti & Sons Dairy, Inc. 118 N. Blaker Rd. Turlock, CA 95380
6.	**General Plan designation:**	AG (Agriculture)
7.	**Zoning:**	A-2-40 (General Agriculture)

8. Description of project:

This is a request to expand an existing dairy operation, located on three parcels (56.2, 28.16, and 28.62 acres in size), currently permitted through the Central Valley Regional Water Quality Control Board to house a maximum of 2,760 mature cows and 250 support stock, to a maximum of 3,800 mature cows and 890 support stock. The request includes the addition of corrals, and two freestall barns (94,500 square feet, and 60,000 square feet in size), two 9,000 square foot special needs barns, a 2,880 square foot addition to an existing special needs barn, and a calf hutch with flush lanes. The feed is stored on two parcels 37.84 acres in size (APNs: 022-041-010 and 022-041-011). The nutrients produced by the herd will be utilized to fertilize approximately 700 acres of irrigated cropland farmed by the applicants. A Nutrient Management Plan and Waste Management Plan are attached. The project site has a private well and septic leach system.

9.	**Surrounding land uses and setting:**	The property is surrounded by agricultural parcels, planted in row crops and orchards, with scattered single-family dwellings. A number of dairies are located within a two mile radius of the project site. The Union Pacific Railroad runs along the eastern property line.
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.

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.**

_____ **December 22, 2017**
Signature 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, than 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 Documentation[1].

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: Each of three parcels included in the project site is currently enrolled under a separate Williamson Act Contract (WAC Nos. 73-1422, 78-3118, and 78-3120). Surrounding land uses consist of mostly cropland, orchard, and scattered single-family homes and agricultural buildings. A number of dairies are located within a two mile radius of the project site.

The portion of the parcel where the dairy operation is located has soils classified by the California Department of Conservation Farmland Mapping and Monitoring Program as Confined Animal Agriculture. The remainder of the parcel is designated mostly as farmland of statewide importance and prime farmland. The USDA Natural Resources Conservation Service's Eastern Stanislaus County Soil Survey indicates that over 67% of the property is made up of grade 2 Dinuba sandy loam soils (DwA), which has a Storie Index Rating of 60, and the remaining 33% is made up of grade 2 Hilmar loamy sand soils (HfA), which has a Storie Index Rating of 69, which are not considered to be prime soils.

The project proposes to increase the number of permitted cows, on three parcels (56.2, 28.16, and 28.62 acres in size), from 2,760 mature cows and 250 support stock, to 3,800 mature cows (consisting of 3,275 milk cows and 525 dry cows) and 890 support stock (consisting of 75 bred heifers 15-24 months and 815 calves 0-3 months) on an existing dairy facility. The request includes the addition of corrals, and two freestall barns (94,500 square feet, and 60,000 square feet in size), two 9,000 square foot special needs barns, a 2,880 square foot addition to an existing special needs barn, and a calf hutch with flush lanes. The site is served by well and private septic services. The attached Waste Water Management Plan (WMP) and Nutrition Management Plan (NMP) provide details on managing the expanded dairy cows. The feed is stored on two parcels 37.84 acres in size (APNs: 022-041-010 and 022-041-011). The nutrients produced by the herd will be utilized to fertilize approximately 700 acres of irrigated cropland farmed by the applicants.

The proposed use is permitted in Stanislaus County; however, the Regional Water Quality Control Board (RWQCB) has determined that Waste Discharge Requirements (WDRs) are required, which requires CEQA compliance. RWQCB has reviewed the applicant's Waste Management Plan and Nutrient Management Plan and has stated the plans are sufficient.

This project will have no impact to forest land or timberland. The 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.

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 Documentation[1].

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.

This project was referred to SJVAPCD and a response letter was received which indicated additional information must be submitted in order for the District to assess the project's potential impact on air quality. The District's response letter also requested that the assessment include the project's potential impacts to construction emissions, operational emissions (both permitted stationary sources and non-permitted mobile sources), nuisance odors, and health impacts from toxic air contaminants (TACs). The applicant provided the District additional information, included in the District's template spreadsheet, and began the Permit to Operate (PTO) application process through the District. Based on this additional information, the District completed an Ambient Air Quality Analysis (AAQA) and a Risk Management Review (RMR) for the project. The District's threshold for TACS includes a potential risk for carcinogens that equals or exceeds 10 in a million for cancer and 1.0 for acute and chronic hazard indices. The RMR indicated that the project's Acute and Chronic Indices are below 1.0. The Cancer Risk factor showed some proposed buildings were less than 1.0 in a million, which means the project is approved to operate without Toxic Best Available Control Technology (T-BACT), and a few (unit 7-3, and freestall barn no. 9) were greater than 1.0 in a million, but less than 20 in a million, and were approved with T-BACT. The District's emissions thresholds include an increase of less than 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 10 tons per year of Volatile Organic Compounds (VOC). The AAQA report indicated that the ambient air quality impacts from increased PM_{10} emissions proposed by the project does not exceed the District's 24-hour or Annual interim threshold for fugitive dust sources.

According to SJVAPCD, the project should also be evaluated to determine the likelihood that the project would result in nuisance odors. Nuisance odors are subjective, thus the District has not established a threshold of significance for nuisance odors. Nuisance odors may be assessed qualitatively taking into consideration project design elements and proximity to off-site receptors that potentially would be exposed to objectionable odors. The subject project is an existing dairy located in the A-2-40 (General Agricultural) zoning district. Chapter 9.32 Agricultural Land Policies of the Stanislaus County Code requires purchasers and users of rural property be notified of the Right-to-Farm Ordinance; establishes that conditions (noise, odor, dust, etc.) resulting from agricultural operations, conducted in a manner consistent with proper

and accepted customs and standards, are not a nuisance; and establishes a grievance committee to mediate disputes involving agricultural operations.

The proposed construction will require an Authority to Construct (ATC) Permit and may be subject to the following District Rules: Regulation VIII, Rule 4102, Rule 4601, Rule 4641, Rule 4002, Rule 4102, Rule 4550, and Rule 4570. The applicant has already submitted their ATC application to the Air District. Staff will include a condition of approval on the project requiring that the applicant be in compliance with the District's rules and regulations.

Mitigation: None.

References: San Joaquin Valley Air Pollution Control District Risk Management Review for the Robert Gioletti Dairy, dated June 14, 2017; Referral Response from the San Joaquin Valley Air Pollution Control District dated June 13, 2017; Stanislaus County General Plan and Support Documentation[1]

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 of the California Natural Diversity Database. The proposed project will be located on the already developed site, which contains the current dairy operation.

The project will not conflict with a 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 to be less than significant.

An early consultation was referred to the California Department of Fish and Wildlife (formerly the Department of Fish and Game) and no response was received.

Mitigation: None.

References: California Department of Fish and Wildlife's Natural Diversity Database Quad Species List, Stanislaus County General Plan and Support Documentation[1]

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 the proposed project would allow for expansion of buildings within the area which has already been disturbed.

Mitigation: None.

References: Stanislaus County General Plan and Support Documentation[1]

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:				X
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 USDA Natural Resources Conservation Service's Eastern Stanislaus County Soil Survey indicates that the soils on the project site are made up of grade 2 Dinuba sandy loam soils (DwA), and the remaining portions are made up of grade 2 Hilmar loamy sand soils (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 building permit application. 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 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 the Stanislaus County Department of Public Works dated July 17, 2017; Stanislaus County General Plan and Support Documentation[1]

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 Gasses (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.

In response to this project referral, SJVAPCD provided a template spreadsheet to the applicant which allows an operation to calculate emissions from both new and modifying dairies. The spreadsheet was completed by the operator, which indicated a change in project GHG emissions of 12,602 metric tons of CO2e per year.

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. Operators of facilities with less than 3,200 dairy cows are under the threshold for required reporting under this rule. This project proposes a maximum of 3,800 milk and dry cows, with an increase of 12,602 metric tons of CO2e per year, which will require reporting to the EPA. Should Best Management Practices for the reduction of Greenhouse Gases from dairy operations be adopted either locally or by SJVAPCD, the Gioletti 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: San Joaquin Valley Air Pollution Control District Risk Management Review for the Robert Gioletti Dairy, dated June 14, 2017; Referral Response from the San Joaquin Valley Air Pollution Control District dated June 16, 2017; United States Environmental Protection Agency (EPA) administrator signed the Final Mandatory Reporting of Greenhouse Gas Rule; Stanislaus County General Plan and Support Documentation[1]

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: The project was referred to the DER Hazardous Materials (HazMat) Division and no response was received. No significant impacts associated with hazards or hazardous materials are anticipated to occur as a result of the proposed project.

Mitigation: None.

References: Stanislaus County General Plan and Support Documentation[1]

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: 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. Flood zone requirements will be addressed by the Building Permits Division during the building permit process.

As mentioned previously, the Central Valley Regional Water Quality Control Board (RWQCB) is responsible for water quality issues related to the project. The project is being circulated for CEQA purposes as RWQCB has determined that Waste Discharge Requirements are required. The RWQCB provided an early consultation referral response indicating that the WMP and NMP provided by the applicant were complete and acceptable. The response continued to explain that due to the facility being located in an area of high groundwater that an analysis of the extent of separation between the bottom of the existing lagoons and the highest anticipated elevation of underlying ground water should be provided. The applicant worked with Sousa Engineering to analyze the groundwater separation which determined, based on a 2010 topographic survey of the existing lagoons, that there was sufficient separation between the lagoons and the groundwater

table. After reviewing this additional information, the RWQCB provided an email, on November 9, 2017, which indicated that based on the review of the available data, it appears that the lagoons do not intercept groundwater. Their response also indicated that when the CEQA process is completed, the Dairy owner/operator will need to submit a Form 200, which is required by the Board for preparation of Individual Waste Discharge Requirements for the Dairy. Conditions of approval will be applied to the project which require adherence to the accepted WMP and all RWQCB standards, including completing individual Waste Discharge Requirements.

Mitigation: None.

References: Referral response from Regional Water Quality Control Board received June 16, 2017; E-mail received from the Central Valley Regional Water Quality Control Board, dated October 4, 2017; Response to RWQCB, prepared by Sousa Engineering, dated October 20, 2017; E-mail received from the Central Valley Regional Water Quality Control Board, dated November 9, 2017; 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). The project will ultimately house 3,800 milk and dry cows, and 890 support stock, which is permitted in the A-2-40 zoning district. However, RWQCB has determined that the proposed project is subject to CEQA and 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: Zoning Ordinance and 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	

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.

Mitigation: None.

References: Stanislaus County General Plan and Support Documentation[1]

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 Documentation[1]

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:			X	
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 regard to public services. The Turlock Irrigation District (TID) did request that any project activity conforms to Turlock Irrigation District standards. This comment will be reflected in the project's conditions of approval.

Mitigation: None.

References: Referral Response from the Turlock Irrigation District dated June 12, 2017; Stanislaus County General Plan and Support Documentation[1]

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 will not increase 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. TRANSPORATION/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: Customers/Visitors per day are proposed to remain unchanged from current levels which are estimated to be two per day. Employee shifts, hours, and/or schedules may be adjusted; however the number of employees estimated at max shift will remain at eight as the milking parlor is not being modified. In regard to truck trips, large tractor trailer deliveries/loadings per day are estimated to increase from four currently to five post expansion.

A referral response from the Department of Public Works, received on July 17, 2017, indicated that the project is subject to obtaining an encroachment permit for the driveway existing in the right-of-way (ROW), ROW dedication through an Irrevocable Offer of Dedication, a restriction on parking, loading, or unloading of vehicles within County Road ROW, and submission of a grading and drainage plan to the Department of Public Works for review and approval. These comments will be applied to the project as conditions of approval.

Mitigation: None.

References: Referral response from the Department of Public Works on July 17, 2017; Stanislaus County General Plan and Support Documentation[1]

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 site will be served by private well, septic system, and on-site drainage. 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.

Mitigation: None.

References: Referral response from the Department of Public Works on July 17, 2017; Stanislaus County General Plan and Support Documentation[1]

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.

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

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

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY: ROBERT GIOLETTI AND SONS DAIRY INC

Physical address of dairy:

10213 W MAIN ST	TURLOCK	Stanislaus	95380
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

TRS Data and Coordinates:

5S	9E	15	Mt. Diablo	37° 29' 36.21" N	120° 57' 37.97" W
Township (T_)	Range (R_)	Section (S_)	Baseline meridian	Latitude (N)	Longitude (W)

Date facility was originally placed in operation: 01/01/1942

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

County Assessor Parcel Number(s) for dairy facility:

0022-0041-0004-0000 0022-0041-0007-0000 0022-0043-0011-0000

B. OPERATOR NAME: GIOLETTI, DEVIN ROBERT Telephone no.: (209) 667-6024 (Landline) (209) 606-7886 (Cellular)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

OPERATOR NAME: GIOLETTI, ELOISE ANN Telephone no.: (209) 667-6024 (Landline)

118 N Blaker RD	Turlock	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

OPERATOR NAME: GIOLETTI, JUSTIN GEORGE Telephone no.: (209) 667-6024 (Landline) (209) 602-9110 (Cellular)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

OPERATOR NAME: GIOLETTI, ROBERT GEORGE Telephone no.: (209) 667-6024 (Landline)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

C. LEGAL OWNER NAME: GIOLETTI, DEVIN ROBERT Telephone no.: (209) 667-6024 (Landline) (209) 606-7886 (Cellular)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

LEGAL OWNER NAME: GIOLETTI, ELOISE ANN Telephone no.: (209) 667-6024 (Landline) (Cellular)

118 N Blaker RD (Mailing Address Number and Street) | Turlock (City) | CA (State) | 95380 (Zip Code)

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

LEGAL OWNER NAME: GIOLETTI, JUSTIN GEORGE Telephone no.: (209) 667-6024 (Landline) (209) 602-9110 (Cellular)

118 N BLAKER RD (Mailing Address Number and Street) | TURLOCK (City) | CA (State) | 95380 (Zip Code)

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

LEGAL OWNER NAME: GIOLETTI, ROBERT GEORGE Telephone no.: (209) 667-6024 (Landline) (Cellular)

118 N BLAKER RD (Mailing Address Number and Street) | TURLOCK (City) | CA (State) | 95380 (Zip Code)

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

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

Title: Technical Service Provider

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

CONTACT NAME: Sousa, Manuel Telephone no.: (209) 238-3151 (Landline) (Cellular)

Title: Professional Engineer

P.O. Box 1613 (Mailing Address Number and Street) | Oakdale (City) | CA (State) | 95361 (Zip Code)

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

HERD AND MILKING EQUIPMENT

A. HERD AND MILKING

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

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

3,800 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	3,275	3,275	20	1,400
Dry Cows	525	525	18	1,400
Bred Heifers (15-24 mo.)	75	75	6	900
Heifers (7-14 mo.)	0	0	0	0
Calves (4-6 mo.)	0	0	0	
Calves (0-3 mo.)	815	815	24	

Predominant milk cow breed: Holstein

Average milk production: 75 pounds per cow per day

Average number of milk cows per string sent to the milkbarn: 232 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: 20.0 hours per day

B. MILKBARN EQUIPMENT AND FLOOR WASH

Bulk tank wash and sanitizing: 3.0 run cycles/wash

Bulk tank wash vat volume: 50 gallons/cycle

Bulk tank wash wastewater: 750.0 gallons/day

Pipeline wash and sanitizing: 4.0 run cycles/wash

Pipeline wash vat volume: 75 gallons/cycle

Pipeline wash wastewater: 600.0 gallons/day

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

Milkbarn / parlor floor wash volume: 16,000 gallons/day

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

Plate coolers volume: 58,950 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: 82,282 gallons/day

C. OTHER WATER USES

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

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Bred Heifers (7-14 mo.)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number of cows drinking from reusable water:	0 *of 3,275*	0 *of 525*	0 *of 75*	0 *of 0*	0 *of 0*	0 *of 815*
Gallons per head per day:	0	0	0	0	0	0

Total reusable water consumed by herd: 0 gallons/day

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

Number of sprinklers in the holding pen: 126 sprinklers

Duration of each sprinkler cycle: 2.0 minutes

Number of sprinkler pen runs/milking: 2 cycles/milking

Flow rate for each sprinkler head: 4.0 gallons/minute

Total sprinkler pen wastewater volume: 56,932 gallons/day

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

D. MISCELLANEOUS EQUIPMENT

Description	Source	Throughput (gallons per day)	Discharge Destination
Freshwater Calf Flush	Fresh Water	8,000	Sent to pond

E. MILKBARN AND EQUIPMENT SUMMARY

Number of days in storage period: 120 days

Water available for reuse/recycle: 58,950 gallons/day

Recycled water reused: 72,932 gallons/day

Recycled water leaving system: 0 gallons/day

Reusable water balance: 0 gallons/day

Volume of milkbarn and equipment wastewater generated for storage period: 9,873,840 gallons/storage period

MANURE AND BEDDING SOLIDS

A. IMPORTED AND FACILITY GENERATED BEDDING

Bedding Type	Imported or Generated (tons)	Density (lbs/cu. ft.)	Applied Separation Efficiency (default)	Solids to Pond (cu. ft./period)
Almond shells	300	20.0	85%	4,500
Facility generated bedding	300	40.0	50%	7,500
			Total:	12,000

B. SOLIDS SEPARATION PROCESS

Combined manure solids separation efficiency (weight basis): 40 %

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

2 Settling Basins

C. MANURE AND BEDDING SOLIDS SUMMARY

	cubic feet		gallons	
	day	storage period	day	storage period
Manure generated by the herd (pre-separation):	8,496.67	1,019,601	63,559.54	7,627,144
Manure generated by the herd sent to pond(s):	6,089.77	730,773	45,554.68	5,466,561
Manure generated by the herd sent to dry lot(s):	1,468.95	176,274	10,988.53	1,318,623
Manure solids (herd) removed by separation:	454.06	54,487	3,396.58	407,590
Liquid component in separated solids not send to pond(s):	483.89	58,067	3,619.75	434,370
Imported and facility generated bedding sent to pond(s):	100.00	12,000	748.05	89,766
Total manure and bedding sent to pond(s):	6,189.77	742,773	46,302.73	5,556,327
Residual manure solids and bedding sent to pond(s) w/factor:	390.54	46,865	2,921.46	350,575
	cubic feet per year		gallons per year	
Residual manure solids and bedding sent to pond(s) w/factor:	142,548		1,066,333	

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
Commodity Slab	54,533	1	0.97	0.50	Drains into pond(s).
Existing Milk Cow Control Lane	19,230	1	0.97	0.50	Drains into pond(s).
North-South Center Drive Lane	30,456	1	0.97	0.50	Drains into pond(s).
Proposed Milk Cow Control Lane	2,340	1	0.97	0.50	Drains into pond(s).
West Control Lane	2,820	1	0.97	0.50	Drains into pond(s).

Surface area that does not run off into pond(s):	0	sq. ft.
Surface area that runs off into pond(s):	109,379	sq. ft.
Total surface area:	109,379	sq. ft.
Runoff from normal storage period rainfall:	291,829	gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	437,743	gallons/storage period
25 year/24 hour storm event runoff:	165,347	gallons/storage period
Total surface area runoff:	457,176	gallons/storage period
Total surface area runoff with 1.5 factor:	603,090	gallons/storage period

C. ROOF AREAS

Name	Surface Area (sq. ft.)	Quantity	Runoff Destination
Barn 1	108,150	1	Wastewater pond
Barn 2	50,400	1	Wastewater pond
Barn 3	108,150	1	Wastewater pond
Barn 5	24,000	1	Wastewater pond
Barn 6	4,372	1	Wastewater pond
Existing Calf Hutch Center (5 Rows)	23,804	1	Wastewater pond
Feed Storage Hay Barn	8,516	1	Wastewater pond
Milk Barn 4	29,544	1	Wastewater pond
Northwest Commodity Shed	9,192	1	Wastewater pond
Proposed Barn 10	9,000	1	Wastewater pond
Proposed Barn 6 Extension	2,880	1	Wastewater pond
Proposed Barn 7	94,500	1	Wastewater pond
Proposed Barn 8	60,000	1	Wastewater pond
Proposed Barn 9	9,000	1	Wastewater pond
Proposed Calf Hutch addition (3 Rows)	14,334	1	Wastewater pond
South Commodity Shed	8,666	1	Wastewater pond

Surface area that does not run off into pond(s):	0	sq. ft.
Surface area that runs off into pond(s):	564,508	sq. ft.
Total surface area:	564,508	sq. ft.
Runoff from normal storage period rainfall:	3,012,273	gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	4,518,410	gallons/storage period
25 year/24 hour storm event runoff:	879,753	gallons/storage period
Total surface area runoff:	3,892,026	gallons/storage period
Total surface area runoff with 1.5 factor:	5,398,163	gallons/storage period

D. EARTHEN AREAS

Name	Surface Area (sq. ft.)	Quantity	25yr/24 Storm Coefficient	Storage Period Coefficient	Runoff Destination
Earthen areas subtracting roofs and concrete	2,031,961	1	0.35	0.20	Drains into pond(s).
Proposed Manure Stacking Pad	217,800	1	0.35	0.20	Drains into pond(s).

Surface area that does not run off into pond(s):	0	sq. ft.
Surface area that runs off into pond(s):	2,249,761	sq. ft.
Total surface area:	2,249,761	sq. ft.
Runoff from normal storage period rainfall:	2,400,992	gallons/storage period
Runoff from normal storage period rainfall with 1.5 factor:	3,601,488	gallons/storage period
25 year/24 hour storm event runoff:	1,227,142	gallons/storage period
Total surface area runoff:	3,628,134	gallons/storage period
Total surface area runoff with 1.5 factor:	4,828,630	gallons/storage period

E. TAILWATER MANAGEMENT

No fields with tailwater entered.

LIQUID STORAGE

A. POND OR BASIN DESCRIPTION: SB1

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

Dimensions			
Earthen Length (EL):	1,110 ft.	Earthen Depth (ED):	4 ft.
Earthen Width (EW):	140 ft.	Side Slope (S):	2.8 ft. (h:1v)
Free Board (FB):	2 ft.	Dead Storage Loss (DS):	1.0 ft.

Calculations			
Liquid Length (LL):	1,099 ft.	Storage Volume Adjusted for Dead Storage Loss:	138,099 cu. ft.
Liquid Width (LW):	129 ft.		
Pond Surface Area:	155,400 sq. ft.	Pond Marker Elevation:	1.4 ft.
Storage Volume:	269,385 cu. ft.	Evaporation Volume:	750,172 gals/period
		Adjusted Surface Area:	139,525 sq. ft.

POND OR BASIN DESCRIPTION: SB2

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

Dimensions			
Earthen Length (EL):	1,110 ft.	Earthen Depth (ED):	4 ft.
Earthen Width (EW):	155 ft.	Side Slope (S):	2.8 ft. (h:1v)
Free Board (FB):	2 ft.	Dead Storage Loss (DS):	1.0 ft.

Calculations			
Liquid Length (LL):	1,099 ft.	Storage Volume Adjusted for Dead Storage Loss:	154,539 cu. ft.
Liquid Width (LW):	144 ft.		
Pond Surface Area:	172,050 sq. ft.	Pond Marker Elevation:	1.4 ft.
Storage Volume:	302,181 cu. ft.	Evaporation Volume:	838,748 gals/period
		Adjusted Surface Area:	155,999 sq. ft.

POND OR BASIN DESCRIPTION: WW 2

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

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

Calculations			
Liquid Length (LL):	ft.	Storage Volume Adjusted for Dead Storage Loss: 3,378,915	cu. ft.
Liquid Width (LW):	ft.		
Pond Surface Area: 473,093	sq. ft.	Pond Marker Elevation: 7.0	ft.
Storage Volume: 3,378,915	cu. ft.	Evaporation Volume: 2,543,466	gals/period
		Adjusted Surface Area:	sq. ft.

POND OR BASIN DESCRIPTION: WW1

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

Dimensions			
Earthen Length (EL): 1,010	ft.	Earthen Depth (ED): 11	ft.
Earthen Width (EW): 140	ft.	Side Slope (S): 2.7	ft. (h:1v)
Free Board (FB): 2	ft.	Dead Storage Loss (DS): 1.0	ft.

Calculations			
Liquid Length (LL): 999	ft.	Storage Volume Adjusted for Dead Storage Loss: 842,762	cu. ft.
Liquid Width (LW): 129	ft.		
Pond Surface Area: 141,400	sq. ft.	Pond Marker Elevation: 8.4	ft.
Storage Volume: 922,175	cu. ft.	Evaporation Volume: 684,593	gals/period
		Adjusted Surface Area: 127,328	sq. ft.

Potential storage losses (due to dead storage): 358,341.0 cubic feet - or - 2,680,576.8 gallons

Liquid storage surface area: 428,630 sq. ft.

Rainfall onto retention pond(s): 5,026,306 gallons/storage period

Rainfall runoff into retention pond(s): 5,705,094 gallons/storage period

Normal rainfall onto retention pond(s) with 1.5 factor: 7,539,459 gallons/storage period

Normal rainfall runoff into retention pond(s) with 1.5 factor: 8,557,641 gallons/storage period

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

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

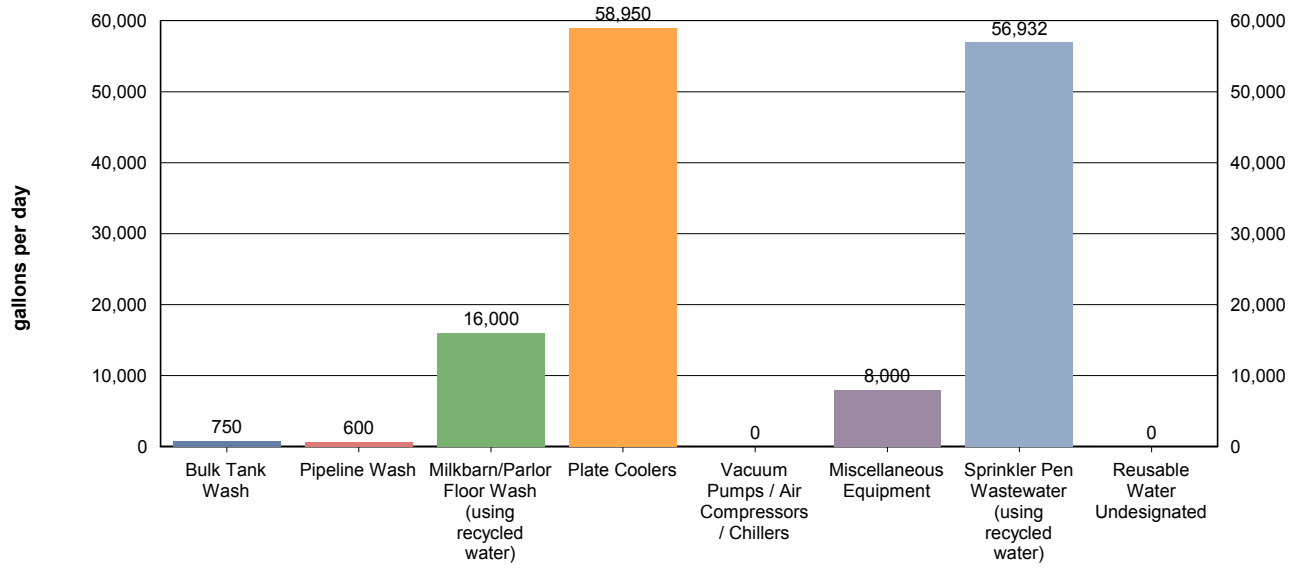
Storage period evaporation volume: 4,816,979 gallons/storage period

Manure and bedding sent to pond(s): 5,556,327 gallons/storage period

Milkbarn water sent to pond(s):	9,873,840	gallons/storage period
Fresh flush water for storage period:	0	gallons/storage period

CHARTS

A. MILKBARN WASTEWATER SENT TO POND(S)

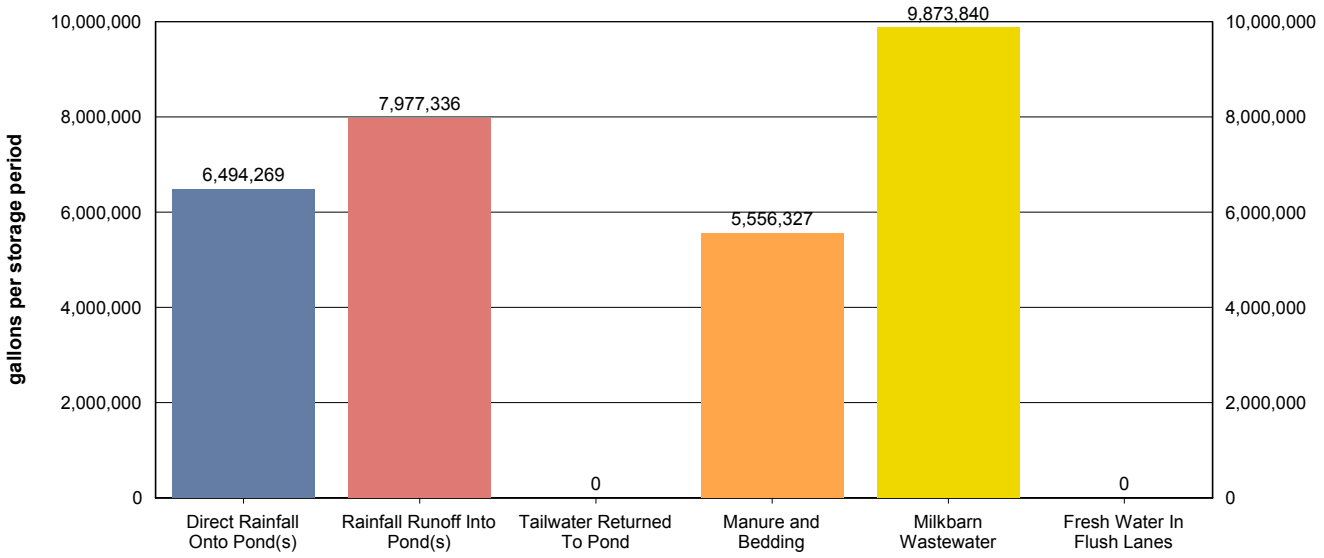


Values shown in chart are approximate values per day.

Total milkbarn wastewater generated daily: 82,282 gallons/day

Total milkbarn wastewater generated per period: 9,873,840 gallons/storage period

B. PROCESS WASTEWATER (NORMAL PRECIPITATION)

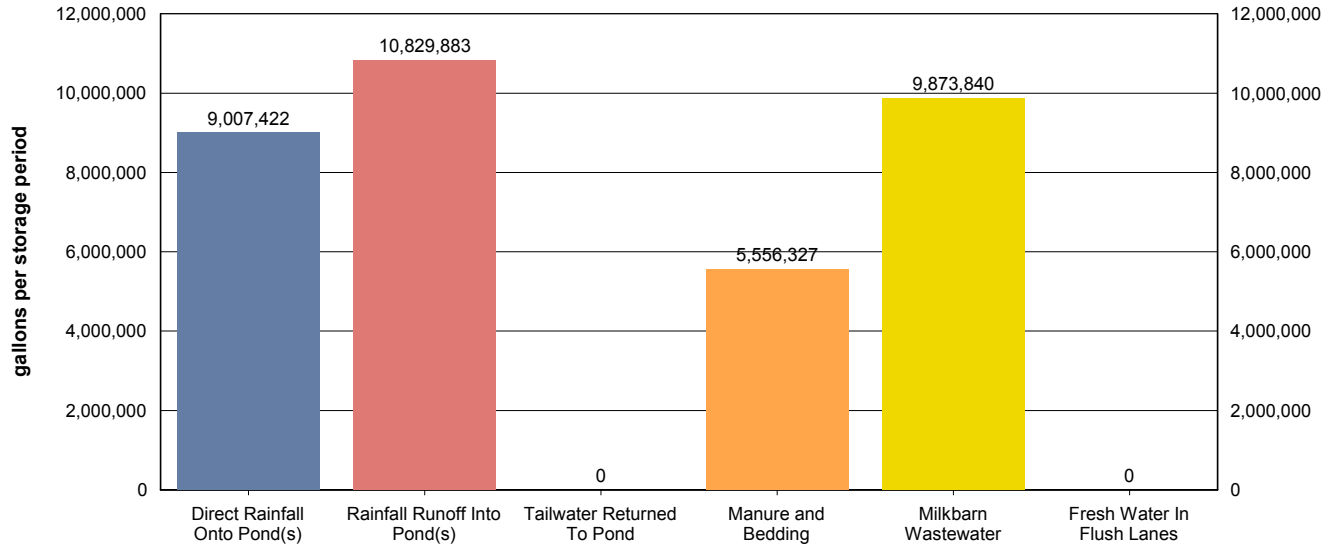


Values shown in chart are approximate values for storage period.

Storage period:	120	days
Total process wastewater generated daily:	249,181	gallons/day
Total process wastewater generated per period:	29,901,772	gallons/storage period
Total process wastewater removed due to evaporation:	4,816,979	gallons/storage period
Total storage capacity required:	25,084,793	gallons
	3,353,349	cu. ft.
Existing storage capacity (adjusted for dead storage loss):	33,769,421	gallons
	4,514,315	cu. ft.

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

C. PROCESS WASTEWATER (NORMAL PRECIPITATION WITH 1.5 FACTOR)

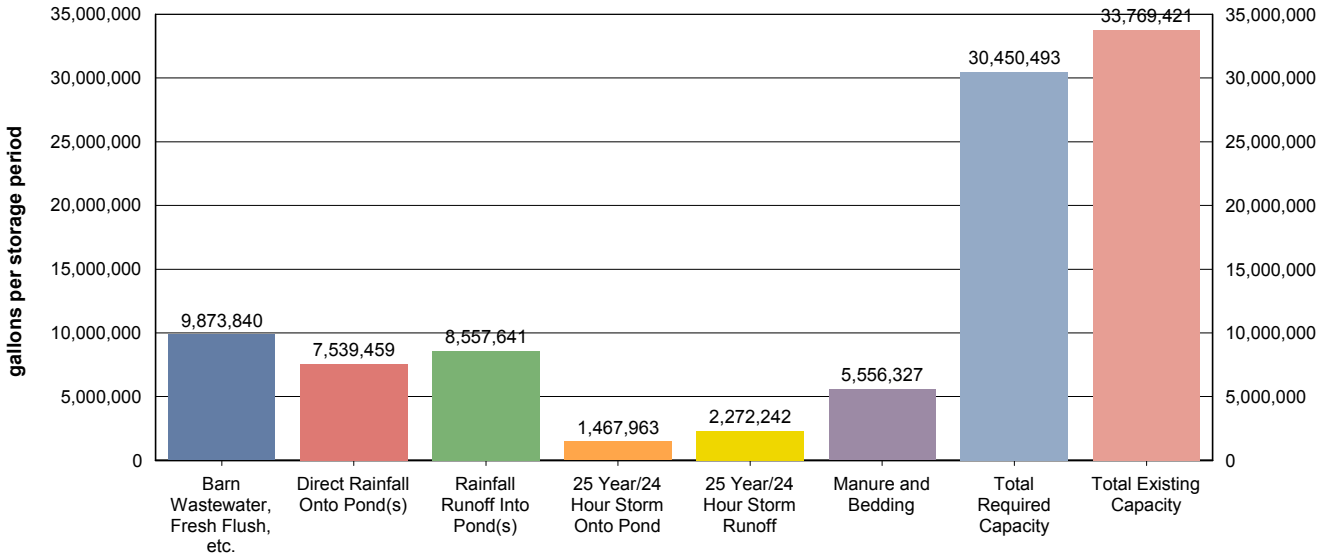


Values shown in chart are approximate values for storage period.

Storage period:	120	days
Total process wastewater generated daily:	293,896	gallons/day
Total process wastewater generated per period:	35,267,472	gallons/storage period
Total process wastewater removed due to evaporation:	4,816,979	gallons/storage period
Total storage capacity required:	30,450,493	gallons
	4,070,639	cu. ft.
Existing storage capacity (adjusted for dead storage loss):	33,769,421	gallons
	4,514,315	cu. ft.

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

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



Values shown in chart are approximate values for storage period.

Storage period:	120	days
Barn wastewater, fresh flush water, and tailwater:	9,873,840	gallons/storage period
Manure and bedding sent to pond:	5,556,327	gallons/storage period
Precipitation onto pond:	7,539,459	gallons/storage period
Precipitation runoff:	8,557,641	gallons/storage period
25 year/24 hour storm onto pond:	1,467,963	gallons/storage period
25 year/24 hour storm runoff:	2,272,242	gallons/storage period
Residual solids after liquids have been removed (liquid equivalent):	350,575	gallons/storage period
Total process wastewater removed due to evaporation:	4,816,979	gallons/storage period
Total required capacity:	30,450,493	gallons/storage period
Total existing capacity:	33,769,421	gallons/storage period
Existing capacity meets estimated storage needs:	[X] Yes [ ] No	

OPERATION AND MAINTENANCE PLAN

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

A. POND MAINTENANCE

i. FREEBOARD MONITORING

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

ii. PREPARATION FOR MAINTAINING WINTER STORAGE CAPACITY

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

iii. OTHER POND MONITORING

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

iv. SOLIDS REMOVAL PROCEDURES

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

OPERATIONS AND MAINTENANCE PLAN FOR POND: SB1

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. The settling basin should be cleaned at least annually in late October to provide winter wastewater storage capacity for the system. If cropland is not available for the solids/sludge, the material should be stockpiled and dried for Spring application.

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:

Basin is typically dewatered and allowed to dry. At that point depending on how much water remains in the basin it can either be cleaned with front end loaders or long reach excavators. Regardless of method, 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: SB2

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. The settling basin should be cleaned at least annually in late October to provide winter wastewater storage capacity for the system. If cropland is not available for the solids/sludge, the material should be stockpiled and dried for Spring application.

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:

Basin is typically dewatered and allowed to dry. At that point depending on how much water remains in the basin it can either be cleaned with front end loaders or long reach excavators. Regardless of method, 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: WW1

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 5.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

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

OPERATIONS AND MAINTENANCE PLAN FOR POND: WW 2

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

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

Process wastewater pond contents will be lowered to the minimum operating level (elevation) of 0.0 feet above the pond invert beginning in 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 5.0 feet, the following method will be used to maintain adequate storage capacity while protecting any pond liner:

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

B. RAINFALL COLLECTION SYSTEM MAINTENANCE

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

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

Buildings with rooftop rainfall collection systems	Quantity	Surface Area (sq. ft.)
Barn 1	1	108,150
Barn 2	1	50,400
Barn 3	1	108,150
Barn 5	1	24,000
Barn 6	1	4,372
Existing Calf Hutch Center (5 Rows)	1	23,804
Feed Storage Hay Barn	1	8,516
Milk Barn 4	1	29,544
Northwest Commodity Shed	1	9,192
Proposed Barn 10	1	9,000
Proposed Barn 6 Extension	1	2,880
Proposed Barn 7	1	94,500
Proposed Barn 8	1	60,000
Proposed Barn 9	1	9,000
Proposed Calf Hutch addition (3 Rows)	1	14,334
South Commodity Shed	1	8,666

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

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

Description of how rainfall collection systems will be assessed:

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

C. CORRAL MAINTENANCE

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

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

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

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

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

Day of the month dry season assessment will occur: 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. During the rainy season, corrals must still be groomed or cleaned to provide adequate drainage. Corral manure management must be in accordance with SJVAPCD permit requirements.

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

D. FEED STORAGE AREA MAINTENANCE

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

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

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

Day of the month dry season assessment will occur: 5th of each month

Day of the week wet season assessment will occur: Monday

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

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

E. SOLID MANURE STORAGE AREA MAINTENANCE

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

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

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

Day of the month dry season assessment will occur: 5th 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: Dar Pro

Rendering company or landfill telephone number: (209) 667-9153

H. ANIMALS AND SURFACE WATER MANAGEMENT

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

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

I. MONITORING SALT IN ANIMAL RATIONS

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

Assessment interval: Monthly

J. CHEMICAL MANAGEMENT

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

Chemical Name	Quantity	Units	Frequency	Usage Area	Destination (Used Chemical / Container)	Disposal Company		Collection Frequency
						Name	Phone	
iodine	40	gallons	month	Milk Barn	Totes returned to supplier			
Acid	80	gallons	month	Milk Barn	Totes returned to supplier			
Chlorine	235	gallons	month	Milk Barn	Totes returned to supplier			
Liquid Soap	30	gallons	week	Milk Barn	Totes returned to supplier			
Pre Dip	120	gallons	month	Milk Barn	Totes returned to supplier			
Post Dip	120	gallons	month	Milk Barn	Totes returned to supplier			

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 2&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: Production Area 1&2

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

Land application infrastructure system area map reference number: Dairy LAA

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 2

E. FLOOD PROTECTION / INUNDATION REPORT

Provide an engineering report showing that the facility has adequate flood protection.

Flood zone map and/or document reference number: FEMA - FM06099C0800E

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: CDQAP - TAB 6.7

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

CERTIFICATION

A. DAIRY FACILITY INFORMATION

Name of dairy or business operating the dairy: ROBERT GIOLETTI AND SONS DAIRY INC

Physical address of dairy:

10213 W MAIN ST	TURLOCK	Stanislaus	95380
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

B. DOCUMENTATION OF QUALIFICATIONS AND PLAN DEVELOPMENT

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

Storage capacity is:

Insufficient

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

Sufficient

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

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

CIVIL ENGINEER'S WET STAMP

12/6/2016

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

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
JUSTIN GEORGE GIOLETTI	
PRINT OR TYPE NAME	PRINT OR TYPE NAME
DATE	DATE

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

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY: ROBERT GIOLETTI AND SONS DAIRY INC

Physical address of dairy:

10213 W MAIN ST	TURLOCK	Stanislaus	95380
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

Date facility was originally placed in operation: 01/01/1942

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

County Assessor Parcel Number(s) for dairy facility:

0022-0041-0004-0000 0022-0041-0007-0000 0022-0043-0011-0000

B. OPERATOR NAME: GIOLETTI, DEVIN ROBERT Telephone no.: (209) 667-6024 (Landline) (209) 606-7886 (Cellular)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

OPERATOR NAME: GIOLETTI, ELOISE ANN Telephone no.: (209) 667-6024 (Landline) (Cellular)

118 N Blaker RD	Turlock	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

OPERATOR NAME: GIOLETTI, JUSTIN GEORGE Telephone no.: (209) 667-6024 (Landline) (209) 602-9110 (Cellular)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

OPERATOR NAME: GIOLETTI, ROBERT GEORGE Telephone no.: (209) 667-6024 (Landline) (Cellular)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

C. LEGAL OWNER NAME: GIOLETTI, DEVIN ROBERT Telephone no.: (209) 667-6024 (Landline) (209) 606-7886 (Cellular)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

LEGAL OWNER NAME: GIOLETTI, ELOISE ANN Telephone no.: (209) 667-6024 (Landline) (Cellular)

118 N Blaker RD	Turlock	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

LEGAL OWNER NAME: GIOLETTI, JUSTIN GEORGE Telephone no.: (209) 667-6024 (Landline) (209) 602-9110 (Cellular)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

LEGAL OWNER NAME: GIOLETTI, ROBERT GEORGE Telephone no.: (209) 667-6024 (Landline) (Cellular)

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

D. CONTACT NAME: Devin, Gioletti ROBERT Telephone no.: (209) 667-6024 (Landline) (209) 606-7886 (Cellular)

Title: Operator / Manager

118 N Blaker RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

CONTACT NAME: Justin, Gioletti George Telephone no.: (209) 667-6024 (Landline) (209) 602-9110 (Cellular)

Title: Operator / Manager

118 N Blaker RD	Turlock	CA	95380
Mailing Address Number and Street	City	State	Zip Code

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

Title: Technical Service Provider

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

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:

3,800 *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	3,275	525	75	0	0	815
Maximum count	3,275	525	75	0	0	815
Avg live weight (lbs)	1,400	1,400	900	0		
Daily hours on flush	20	18	6	0	0	24

Predominant milk cow breed: Holstein

Average milk production: 75 *pounds per cow per day*

B. IRRIGATION SOURCES

Irrigation Source Name	Type	Nitrogen (mg/L)	Phosphorus (mg/L)	Potassium (mg/L)	Discharge Rate
IW 1 Mitchell	Groundwater (well)	42.90			3 *cfs*
IW 2 Mitchell Trees	Groundwater (well)	39.30			3 *cfs*
IW 3 Browns	Groundwater (well)	52.60			3 *cfs*
IW 4 ET Vincent	Groundwater (well)	48.30			3 *cfs*
IW 5 RV Barn	Groundwater (well)	25.00			3 *cfs*
IW 6 Cabrals	Groundwater (well)	25.00			3 *cfs*
TID Canal	Surface water (canal, river)	1.50			15 *cfs*

C. NUTRIENT IMPORTS

Nutrient Type/Name	Quantity	Moisture	Nitrogen	Phosphorus (as P2O5)	Potassium (as K2O)
UN 32 Almonds	24.00 *ton*	0.1%	32.000%	0.000%	0.000%
4-10-10 Starter	25.50 *ton*	0.1%	4.000%	10.000%	10.000%
UN 32 Sidedress 1 Corn	18.70 *ton*	0.1%	32.000%	0.000%	0.000%
UN 32 Sidedress 2 Corn	18.70 *ton*	0.1%	32.000%	0.000%	0.000%
35-0-0 Forage Starter	4.08 *ton*	0.1%	35.000%	0.000%	0.000%

Total nitrogen imported: 44,147.81 *lbs*

Total phosphorus imported: 2,226.47 *lbs*

Total potassium imported: 4,228.77 *lbs*

D. NUTRIENT EXPORTS

Nutrient Type/Name	Quantity	Moisture	Nitrogen	Phosphorus (as P2O5)	Potassium (as K2O)
Fall Manure Exports	9,750.00 *ton*	25.0%	3.000%	1.600%	1.750%
Spring Manure Exports	4,500.00 *ton*	40.0%	3.250%	1.800%	2.000%

Total nitrogen exported: 614,250.00 *lbs*

Total phosphorus exported: 144,734.40 *lbs*

Total potassium exported: 302,068.13 *lbs*

E. STORAGE PERIOD

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

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

Storage period: 120 *days*

APPLICATION AREA

A. ASSESSOR PARCEL NUMBER: 0022-0034-0002-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0040-0009-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0041-0001-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0041-0004-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0041-0006-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0041-0009-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0041-0010-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0041-0012-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0043-0010-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0043-0011-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0043-0017-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0022-0045-0043-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0058-0009-0006-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0058-0009-0007-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0058-0009-0008-0000

ASSESSOR PARCEL NUMBER (CONTINUED): 0058-0009-0008-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0058-0010-0009-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0058-0017-0007-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0058-0023-0007-0000
Legal owner of parcel: Owned by Dairy

ASSESSOR PARCEL NUMBER: 0580-0018-0002-0000
Legal owner of parcel: Owned by Dairy

B. FIELD NAME: 7-7

Cropable acres: 35

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	35
Corn, silage	Early May	Early September	35

FIELD NAME: Airstrip

Cropable acres: 53

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	53
Corn, silage	Early May	Middle October	53

FIELD NAME: Art's

Cropable acres: 36

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Alfalfa, hay	Early January	Late December	36

FIELD NAME: Brown's East

Cropable acres: 32

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	32
Corn, silage	Early May	Early September	32

FIELD NAME: Brown's West

Cropable acres: 4

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	4
Corn, silage	Early May	Early September	4

FIELD NAME: Cabral's

Cropable acres: 94

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	94
Corn, silage	Early May	Early September	94

FIELD NAME: Devin's

Cropable acres: 36

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Almond, in shell	Early January	Early September	30

FIELD NAME: Edward's

Cropable acres: 20

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Alfalfa, hay	Early November	Late October	20

FIELD NAME: ET Vincent

Cropable acres: 34

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	34
Corn, silage	Early May	Early September	34

FIELD NAME: Goodlow's

Cropable acres: 34

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Almond, in shell	Early January	Early September	34

FIELD NAME: Jones

Cropable acres: 72

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Berm

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Alfalfa, hay	Early November	Late October	72

FIELD NAME: Justin's

Cropable acres: 18

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	18
Corn, silage	Early May	Early September	18

FIELD NAME: Lamb's

Cropable acres: 36

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Berm

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	36
Corn, silage	Early May	Early September	36

FIELD NAME: Mitchell Trees

Cropable acres: 45

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Berm

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Almond, in shell	Early January	Early September	45

FIELD NAME: Pit

Cropable acres: 14

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	14
Corn, silage	Early May	Early September	14

FIELD NAME: Pump

Cropable acres: 15

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	15
Corn, silage	Early May	Early September	15

FIELD NAME: Rick's 50

Cropable acres: 48

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	48
Corn, silage	Early May	Early September	48

FIELD NAME: RV Barn

Cropable acres: 38

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Oats, silage-soft dough	Early November	Early April	38
Corn, silage	Early May	Early September	38

FIELD NAME: Shop

Cropable acres: 11

Predominant soil type: Sandy loam

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

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

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

Tailwater management method: Contained on Site

Crops grown and rotation:

Crop Type	Plant Date	Harvest Date	Acres Planted
Almond, in shell	Early January	Early September	11

C. LAND APPLICATION AREA FIELDS AND PARCELS

Field name	Cropable acres	Total harvests	Parcel number
7-7	35	2	0022-0034-00020000
Airstrip	53	2	0022-0043-00100000
Art's	36	6	0580-0018-00020000
Brown's East	32	2	0022-0041-00060000
Brown's West	4	2	0022-0041-00060000
Cabral's	94	2	0058-0023-00070000
Devin's	36	1	0022-0041-00040000
Edward's	20	7	0058-0017-00070000
ET Vincent	34	2	0022-0041-00010000
Goodlow's	34	1	0022-0041-00090000
Jones	72	7	0058-0009-00060000 0058-0009-00070000 0058-0009-00080000
Justin's	18	2	0022-0045-00430000
Lamb's	36	2	0058-0010-00090000
Mitchell Trees	45	1	0022-0043-00170000
Pit	14	2	0022-0041-00100000
Pump	15	2	0022-0041-00120000
Rick's 50	48	2	0022-0040-00090000
RV Barn	38	2	0022-0043-00110000
Shop	11	1	0022-0041-00120000
Land application area totals	819	62	

NUTRIENT BUDGET

A. NUTRIENT BUDGET FOR CROP: 7-7 / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Dry manure	1	220.0	48.0	320.0	220.0
Nutrient source: From dairy		50%	50%	50%	
Application method: Broadcast/incorporate					
Starter fertilizer at planting	1	21.0	0.0	0.0	21.0
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: Sidedress					
Pre-irrigation prior to planting (no fertilizer)	1	0.0	0.0	0.0	2.0
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	14.0
	2.0	0.0	0.0	

In season irrigation (no fertilizer)		1	0.0	0.0	0.0	2.0
Nutrient source: Water only			0%	0%	0%	
Application method: Surface						

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	14.0
	2.0	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	4.0	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	21.0	0.0	0.0
Dry manure	220.0	48.0	320.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	252.0	48.0	320.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	72.0	19.2	170.6
Applied to removal ratio	1.40	1.67	2.14

Fresh water applied: 0.99 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: 7-7 / Corn, silage

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

NUTRIENT BUDGET FOR CROP (CONTINUED): 7-7 / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Dry manure	1	110.0	24.0	160.0	110.0
Nutrient source: From dairy		50%	50%	50%	
Application method: Broadcast/incorporate					
Starter fertilizer at planting	1	15.0	38.0	38.0	15.0
Nutrient source: Commercial fertilizer		100%	100%	100%	
Application method: Sidedress					
In season fertilizer sidedress 1	1	88.0	0.0	0.0	88.0
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: Sidedress					
In season fertilizer sidedress 2	1	88.0	0.0	0.0	88.0
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: Sidedress					
Pre-irrigation prior to planting (no fertilizer)	1	0.0	0.0	0.0	2.0
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	14.0
	2.0	0.0	0.0	

In season irrigation (no fertilizer)	8	0.0	0.0	0.0	11.6
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

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

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	13.6	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	191.0	38.0	38.0
Dry manure	110.0	24.0	160.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	321.6	62.0	198.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	81.6	17.0	0.0
Applied to removal ratio	1.34	1.38	1.00

Fresh water applied: 3.33 *feet* Total harvests: 1

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	52.0 66%	9.0 80%	70.0 80%	54.3

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.3	0.0	0.0	24.0
	2.3	0.0	0.0	

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	120.0 66%	12.0 80%	105.0 80%	146.2

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 1 Mitchell	26.2	0.0	0.0	48.0
	26.2	0.0	0.0	

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	40.0 66%	8.0 80%	38.0 80%	42.3

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.3	0.0	0.0	24.0
	2.3	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	30.8	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	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	249.8	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	69.8	0.2	63.6
Applied to removal ratio	1.39	1.01	1.43

Fresh water applied: 1.35 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Airstrip / Corn, silage

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

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	100.0	16.0	100.0	101.9
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	20.0
	1.9	0.0	0.0	

In season irrigation (no fertilizer)	2	0.0	0.0	0.0	3.1
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.5	0.0	0.0	16.0
	1.5	0.0	0.0	

In season irrigation (with fertilizer)	6	36.0	6.0	32.0	225.2
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.5	0.0	0.0	16.0
	1.5	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	14.1	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	337.1	52.0	292.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	97.1	7.0	94.0
Applied to removal ratio	1.40	1.16	1.47

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

NUTRIENT BUDGET FOR CROP: Art's / Alfalfa, hay

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

NUTRIENT BUDGET FOR CROP (CONTINUED): Art's / Alfalfa, hay

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Dry manure	1	275.0	80.0	350.0	275.0
Nutrient source: From dairy		50%	50%	50%	
Application method: Broadcast/incorporate					
In season irrigation (no fertilizer)	8	0.0	0.0	0.0	15.7
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	14.0
	2.0	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	15.7	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	275.0	80.0	350.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	14.0		
Nutrients applied	304.7	80.0	350.0
Potential crop nutrient removal	480.0	43.2	336.0
Nutrient balance	-175.3	36.8	14.0
Applied to removal ratio	0.63	1.85	1.04

Fresh water applied: 3.86 *feet* Total harvests: 6

NUTRIENT BUDGET FOR CROP: Brown's East / 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	52.0	9.0	70.0	54.5
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.5	0.0	0.0	16.0
	2.5	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Brown's East / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer)	1	120.0	12.0	105.0	146.6
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 3 Browns	26.6	0.0	0.0	24.0
	26.6	0.0	0.0	

In season irrigation (with fertilizer)	1	40.0	8.0	38.0	42.2
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.2	0.0	0.0	14.0
	2.2	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	31.3	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	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	250.3	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	70.3	0.2	63.6
Applied to removal ratio	1.39	1.01	1.43

Fresh water applied: 1.35 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Brown's East / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	100.0	16.0	100.0	102.5
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.5	0.0	0.0	16.0
	2.5	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Brown's East / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (no fertilizer)	2	0.0	0.0	0.0	3.2
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.6	0.0	0.0	10.0
	1.6	0.0	0.0	

In season irrigation (with fertilizer)	6	36.0	6.0	32.0	223.6
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.3	0.0	0.0	8.0
	1.3	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	13.3	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	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	336.3	52.0	292.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	96.3	7.0	94.0
Applied to removal ratio	1.40	1.16	1.47

Fresh water applied: 3.25 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Brown's West / 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	52.0	9.0	70.0	53.9
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	1.5
	1.9	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Brown's West / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	120.0 66%	12.0 80%	105.0 80%	146.6

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 3 Browns	26.6	0.0	0.0	3.0
	26.6	0.0	0.0	

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	40.0 66%	8.0 80%	38.0 80%	41.9

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	1.5
	1.9	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	30.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	249.4	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	69.4	0.2	63.6
Applied to removal ratio	1.39	1.01	1.43

Fresh water applied: 1.12 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Brown's West / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	100.0 66%	16.0 80%	100.0 80%	102.5

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.5	0.0	0.0	2.0
	2.5	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Brown's West / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (no fertilizer)	2	0.0	0.0	0.0	3.8
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	1.5
	1.9	0.0	0.0	

In season irrigation (with fertilizer)	6	36.0	6.0	32.0	223.6
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.3	0.0	0.0	1.0
	1.3	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	13.9	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	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	336.9	52.0	292.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	96.9	7.0	94.0
Applied to removal ratio	1.40	1.16	1.47

Fresh water applied: 3.41 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Cabral's / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Dry manure	1	220.0	48.0	320.0	220.0
Nutrient source: From dairy		50%	50%	50%	
Application method: Broadcast/incorporate					
Starter fertilizer at planting	1	21.0	0.0	0.0	21.0
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: Sidedress					

NUTRIENT BUDGET FOR CROP (CONTINUED): Cabral's / 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 (no fertilizer)	1	0.0	0.0	0.0	1.9
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	36.0
	1.9	0.0	0.0	

In season irrigation (no fertilizer)	1	0.0	0.0	0.0	1.9
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	36.0
	1.9	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	3.9	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	21.0	0.0	0.0
Dry manure	220.0	48.0	320.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	251.9	48.0	320.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	71.9	19.2	170.6
Applied to removal ratio	1.40	1.67	2.14

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

NUTRIENT BUDGET FOR CROP: Cabral's / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Dry manure	1	110.0	24.0	160.0	110.0
Nutrient source: From dairy		50%	50%	50%	
Application method: Broadcast/incorporate					
Starter fertilizer at planting	1	15.0	38.0	38.0	15.0
Nutrient source: Commercial fertilizer		100%	100%	100%	
Application method: Sidedress					

NUTRIENT BUDGET FOR CROP (CONTINUED): Cabral's / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season fertilizer sidedress 1	1	88.0	0.0	0.0	88.0
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: Sidedress					
In season fertilizer sidedress 2	1	88.0	0.0	0.0	88.0
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: Sidedress					
Pre-irrigation prior to planting (no fertilizer)	1	0.0	0.0	0.0	1.9
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	36.0
	1.9	0.0	0.0	

In season irrigation (no fertilizer)		8	0.0	0.0	0.0	12.0
Nutrient source: Water only			0%	0%	0%	
Application method: Surface						

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.5	0.0	0.0	28.0
	1.5	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	14.0	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	191.0	38.0	38.0
Dry manure	110.0	24.0	160.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	322.0	62.0	198.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	82.0	17.0	0.0
Applied to removal ratio	1.34	1.38	1.00

Fresh water applied: 3.43 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Devin's / Almond, in shell

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

NUTRIENT BUDGET FOR CROP (CONTINUED): Devin's / Almond, in shell

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)	8	0.0	0.0	0.0	10.8
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.3	0.0	0.0	8.0
	1.3	0.0	0.0	

In season irrigation (with fertilizer)	4	32.0	0.0	0.0	133.4
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.3	0.0	0.0	8.0
	1.3	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	16.2	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	128.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	14.0		
Nutrients applied	158.2	0.0	0.0
Potential crop nutrient removal	130.0	20.0	99.0
Nutrient balance	28.2	-20.0	-99.0
Applied to removal ratio	1.22	0.00	0.00

Fresh water applied: 3.97 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Edward's / Alfalfa, hay

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Dry manure	1	275.0	80.0	350.0	275.0
Nutrient source: From dairy		50%	50%	50%	
Application method: Broadcast/incorporate					

NUTRIENT BUDGET FOR CROP (CONTINUED): Edward's / Alfalfa, hay

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (no fertilizer) *Nutrient source:* Water only *Application method:* Surface	8	0.0 0%	0.0 0%	0.0 0%	16.2

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	8.0
	2.0	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	16.2	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	275.0	80.0	350.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	14.0		
Nutrients applied	305.2	80.0	350.0
Potential crop nutrient removal	420.0	37.8	294.0
Nutrient balance	-114.8	42.2	56.0
Applied to removal ratio	0.73	2.12	1.19

Fresh water applied: 3.97 *feet* Total harvests: 7

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	52.0 66%	9.0 80%	70.0 80%	54.4

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.4	0.0	0.0	16.0
	2.4	0.0	0.0	

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	120.0 66%	12.0 80%	105.0 80%	143.0

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 4 ET Vincent	23.0	0.0	0.0	24.0
	23.0	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): ET Vincent / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	40.0 66%	8.0 80%	38.0 80%	42.4

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.4	0.0	0.0	16.0
	2.4	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	27.7	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	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	246.7	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	66.7	0.2	63.6
Applied to removal ratio	1.37	1.01	1.43

Fresh water applied: 1.34 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: ET Vincent / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	100.0 66%	16.0 80%	100.0 80%	102.4

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.4	0.0	0.0	16.0
	2.4	0.0	0.0	

In season irrigation (no fertilizer) *Nutrient source:* Water only *Application method:* Surface	2	0.0 0%	0.0 0%	0.0 0%	3.0

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	

NUTRIENT BUDGET FOR CROP (CONTINUED): ET Vincent / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer)	6	36.0	6.0	32.0	223.1
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: 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	12.5	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	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	335.5	52.0	292.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	95.5	7.0	94.0
Applied to removal ratio	1.40	1.16	1.47

Fresh water applied: 3.06 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Goodlow's / Almond, in shell

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)	8	0.0	0.0	0.0	9.5
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.2	0.0	0.0	8.0
	1.2	0.0	0.0	

In season irrigation (with fertilizer)	4	32.0	0.0	0.0	132.8
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: 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	14.3	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	128.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	14.0		
Nutrients applied	156.3	0.0	0.0
Potential crop nutrient removal	130.0	20.0	99.0
Nutrient balance	26.3	-20.0	-99.0
Applied to removal ratio	1.20	0.00	0.00

Fresh water applied: 3.50 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Jones / Alfalfa, hay

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Dry manure	1	275.0	80.0	350.0	275.0
Nutrient source: From dairy		50%	50%	50%	
Application method: Broadcast/incorporate					
In season irrigation (no fertilizer)	8	0.0	0.0	0.0	15.7
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	28.0
	2.0	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	15.7	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	275.0	80.0	350.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	14.0		
Nutrients applied	304.7	80.0	350.0

Potential crop nutrient removal	420.0	37.8	294.0
Nutrient balance	-115.3	42.2	56.0
Applied to removal ratio	0.73	2.12	1.19

Fresh water applied: 3.86 *feet* Total harvests: 7

NUTRIENT BUDGET FOR CROP: Justin's / 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	52.0	9.0	70.0	54.2
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.2	0.0	0.0	8.0
	2.2	0.0	0.0	

In season irrigation (with fertilizer)	1	120.0	12.0	105.0	145.7
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 1 Mitchell	25.7	0.0	0.0	16.0
	25.7	0.0	0.0	

In season irrigation (with fertilizer)	1	40.0	8.0	38.0	42.2
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.2	0.0	0.0	8.0
	2.2	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	30.2	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	249.2	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	69.2	0.2	63.6
Applied to removal ratio	1.38	1.01	1.43

Fresh water applied: 1.32 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Justin's / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	100.0 66%	16.0 80%	100.0 80%	102.2

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.2	0.0	0.0	8.0
	2.2	0.0	0.0	

In season irrigation (no fertilizer) *Nutrient source:* Water only *Application method:* Surface	2	0.0 0%	0.0 0%	0.0 0%	3.4

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.7	0.0	0.0	6.0
	1.7	0.0	0.0	

In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	6	36.0 66%	6.0 80%	32.0 80%	224.4

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.4	0.0	0.0	5.0
	1.4	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	14.0	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	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	337.0	52.0	292.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	97.0	7.0	94.0
Applied to removal ratio	1.40	1.16	1.47

Fresh water applied: 3.44 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Lamb's / 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	52.0	9.0	70.0	54.2
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.2	0.0	0.0	16.0
	2.2	0.0	0.0	

In season irrigation (with fertilizer)	1	120.0	12.0	105.0	136.9
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 5 RV Barn	16.9	0.0	0.0	36.0
	16.9	0.0	0.0	

In season irrigation (with fertilizer)	1	40.0	8.0	38.0	42.2
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.2	0.0	0.0	16.0
	2.2	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	21.3	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	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	240.3	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	60.3	0.2	63.6
Applied to removal ratio	1.34	1.01	1.43

Fresh water applied: 1.35 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Lamb's / Corn, silage

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

NUTRIENT BUDGET FOR CROP (CONTINUED): Lamb's / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	100.0	16.0	100.0	102.0
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	14.0
	2.0	0.0	0.0	

In season irrigation (no fertilizer)	2	0.0	0.0	0.0	3.4
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.7	0.0	0.0	12.0
	1.7	0.0	0.0	

In season irrigation (with fertilizer)	6	36.0	6.0	32.0	224.4
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

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

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	13.8	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	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	336.8	52.0	292.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	96.8	7.0	94.0
Applied to removal ratio	1.40	1.16	1.47

Fresh water applied: 3.37 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Mitchell Trees / Almond, in shell

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

NUTRIENT BUDGET FOR CROP (CONTINUED): Mitchell Trees / Almond, in shell

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)	8	0.0	0.0	0.0	14.4
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.8	0.0	0.0	16.0
	1.8	0.0	0.0	

In season irrigation (with fertilizer)	4	32.0	0.0	0.0	131.6
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	0.9	0.0	0.0	8.0
	0.9	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	18.0	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	128.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	14.0		
Nutrients applied	160.0	0.0	0.0
Potential crop nutrient removal	130.0	20.0	99.0
Nutrient balance	30.0	-20.0	-99.0
Applied to removal ratio	1.23	0.00	0.00

Fresh water applied: 4.41 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Pit / 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	52.0	9.0	70.0	54.2
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.2	0.0	0.0	6.0
	2.2	0.0	0.0	

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	120.0 66%	12.0 80%	105.0 80%	147.9

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 4 ET Vincent	27.9	0.0	0.0	12.0
	27.9	0.0	0.0	

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	40.0 66%	8.0 80%	38.0 80%	42.2

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.2	0.0	0.0	6.0
	2.2	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	32.2	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	251.2	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	71.2	0.2	63.6
Applied to removal ratio	1.40	1.01	1.43

Fresh water applied: 1.28 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Pit / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	1	100.0 66%	16.0 80%	100.0 80%	102.2

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.2	0.0	0.0	6.0
	2.2	0.0	0.0	

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (no fertilizer)	2	0.0	0.0	0.0	2.9
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.4	0.0	0.0	4.0
	1.4	0.0	0.0	

In season irrigation (with fertilizer)	6	36.0	6.0	32.0	224.7
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.4	0.0	0.0	4.0
	1.4	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	13.7	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	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	336.7	52.0	292.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	96.7	7.0	94.0
Applied to removal ratio	1.40	1.16	1.47

Fresh water applied: 3.36 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Pump / 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	52.0	9.0	70.0	54.0
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	6.0
	2.0	0.0	0.0	

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer)	1	120.0	12.0	105.0	148.4
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 3 Browns	28.4	0.0	0.0	12.0
	28.4	0.0	0.0	

In season irrigation (with fertilizer)	1	40.0	8.0	38.0	42.0
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	6.0
	2.0	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	32.4	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	251.4	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	71.4	0.2	63.6
Applied to removal ratio	1.40	1.01	1.43

Fresh water applied: 1.19 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Pump / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	100.0	16.0	100.0	102.0
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.0	0.0	0.0	6.0
	2.0	0.0	0.0	

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (no fertilizer)	2	0.0	0.0	0.0	3.4
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.7	0.0	0.0	5.0
	1.7	0.0	0.0	

In season irrigation (with fertilizer)	6	36.0	6.0	32.0	224.1
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.3	0.0	0.0	4.0
	1.3	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	13.5	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	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	336.5	52.0	292.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	96.5	7.0	94.0
Applied to removal ratio	1.40	1.16	1.47

Fresh water applied: 3.31 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Rick's 50 / 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	52.0	9.0	70.0	54.1
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.1	0.0	0.0	20.0
	2.1	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Rick's 50 / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer)	1	120.0	12.0	105.0	149.6
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 3 Browns	29.6	0.0	0.0	40.0
	29.6	0.0	0.0	

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer)	1	40.0	8.0	38.0	42.1
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.1	0.0	0.0	20.0
	2.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	33.8	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	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	252.8	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	72.8	0.2	63.6
Applied to removal ratio	1.40	1.01	1.43

Fresh water applied: 1.24 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Rick's 50 / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	100.0	16.0	100.0	101.9
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	18.0
	1.9	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Rick's 50 / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (no fertilizer)	2	0.0	0.0	0.0	3.4
Nutrient source: Water only		0%	0%	0%	
Application method: Surface					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.7	0.0	0.0	16.0
	1.7	0.0	0.0	

In season irrigation (with fertilizer)	6	36.0	6.0	32.0	224.8
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.5	0.0	0.0	14.0
	1.5	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	14.1	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	337.1	52.0	292.0
Potential crop nutrient removal	240.0	48.0	198.0
Nutrient balance	97.1	4.0	94.0
Applied to removal ratio	1.40	1.08	1.47

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

NUTRIENT BUDGET FOR CROP: RV Barn / 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	52.0	9.0	70.0	54.1
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.1	0.0	0.0	16.0
	2.1	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): RV Barn / Oats, silage-soft dough

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer)	1	120.0	12.0	105.0	136.0
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
IW 5 RV Barn	16.0	0.0	0.0	36.0
	16.0	0.0	0.0	

In season irrigation (with fertilizer)	1	40.0	8.0	38.0	42.1
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	2.1	0.0	0.0	16.0
	2.1	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	20.2	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	0.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	212.0	29.0	213.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	239.2	29.0	213.0
Potential crop nutrient removal	180.0	28.8	149.4
Nutrient balance	59.2	0.2	63.6
Applied to removal ratio	1.33	1.01	1.43

Fresh water applied: 1.28 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: RV Barn / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
Pre-irrigation prior to planting (with fertilizer)	1	100.0	16.0	100.0	101.9
Nutrient source: Retention pond (lagoon)		66%	80%	80%	
Application method: Pipeline					

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.9	0.0	0.0	14.0
	1.9	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): RV Barn / Corn, silage

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (no fertilizer) *Nutrient source:* Water only *Application method:* Surface	2	0.0 0%	0.0 0%	0.0 0%	3.2

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

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer) *Nutrient source:* Retention pond (lagoon) *Application method:* Pipeline	6	36.0 66%	6.0 80%	32.0 80%	224.0

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.3	0.0	0.0	10.0
	1.3	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	13.0	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	316.0	52.0	292.0
Other	0.0	0.0	0.0
Atmospheric deposition	7.0		
Nutrients applied	336.0	52.0	292.0
Potential crop nutrient removal	240.0	45.0	198.0
Nutrient balance	96.0	7.0	94.0
Applied to removal ratio	1.40	1.16	1.47

Fresh water applied: 3.20 *feet* Total harvests: 1

NUTRIENT BUDGET FOR CROP: Shop / Almond, in shell

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (no fertilizer) *Nutrient source:* Water only *Application method:* Surface	8	0.0 0%	0.0 0%	0.0 0%	11.0

Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.4	0.0	0.0	3.0
	1.4	0.0	0.0	

NUTRIENT BUDGET FOR CROP (CONTINUED): Shop / Almond, in shell

Activity / Event	# of Events	N (lbs/acre) % avail.	P (lbs/acre) % avail.	K (lbs/acre) % avail.	Total N (lbs/acre)
In season irrigation (with fertilizer)	4	32.0	0.0	0.0	133.5
Nutrient source: Commercial fertilizer		100%	0%	0%	
Application method: Pipeline					

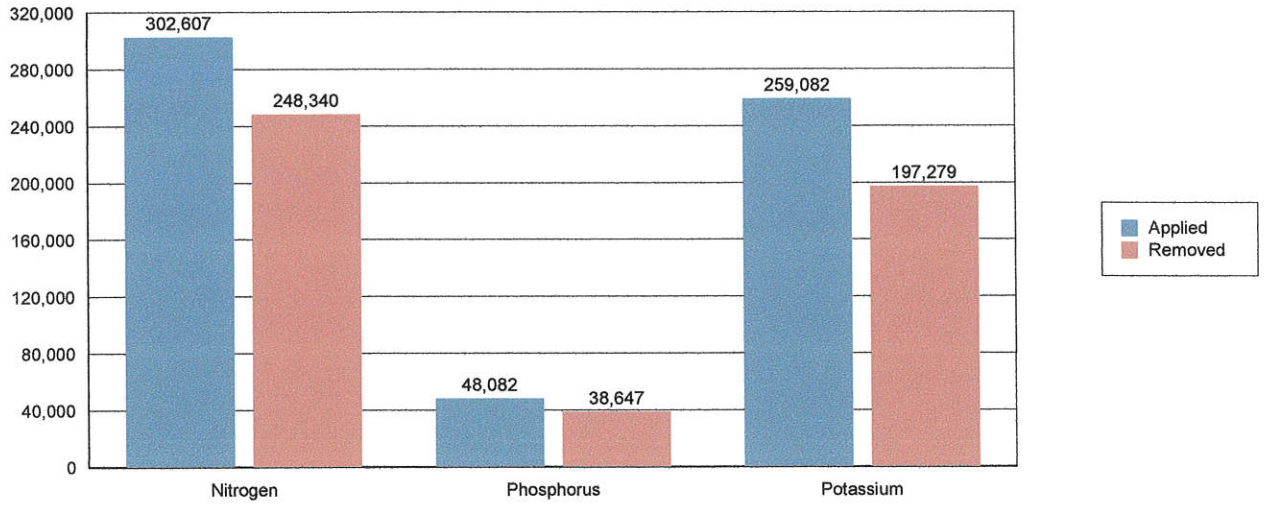
Irrigation Source	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Runtime (hrs)
TID Canal	1.4	0.0	0.0	3.0
	1.4	0.0	0.0	

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)
Irrigation sources	16.5	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	128.0	0.0	0.0
Dry manure	0.0	0.0	0.0
Liquid manure	0.0	0.0	0.0
Other	0.0	0.0	0.0
Atmospheric deposition	14.0		
Nutrients applied	158.5	0.0	0.0
Potential crop nutrient removal	130.0	20.0	99.0
Nutrient balance	28.5	-20.0	-99.0
Applied to removal ratio	1.22	0.00	0.00

Fresh water applied: 4.06 *feet* Total harvests: 1

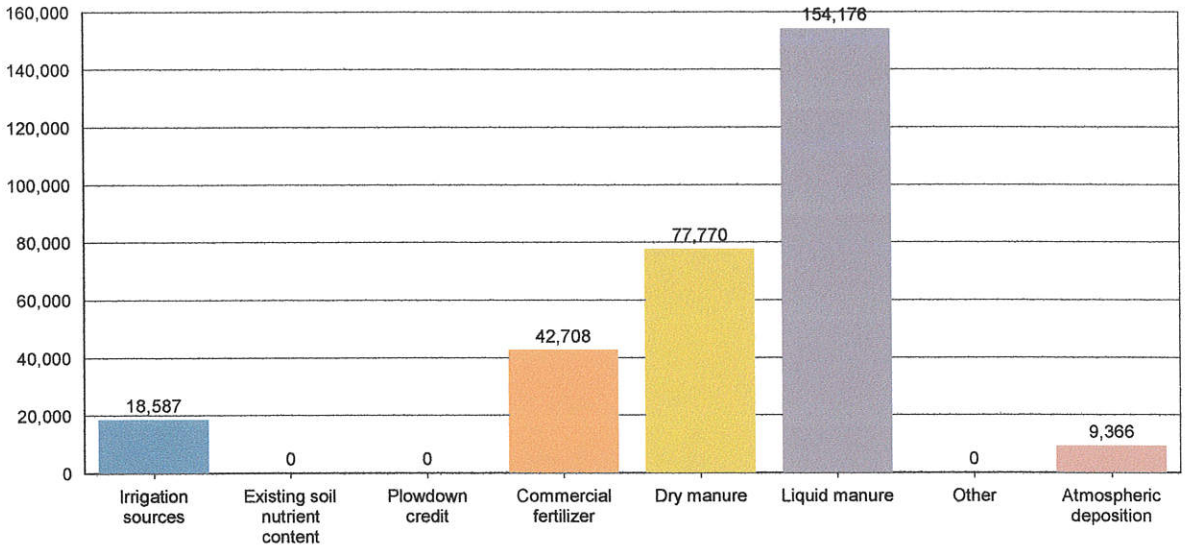
NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

A. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL POTENTIAL



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	18,587.3	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	42,708.0	4,902.0	4,902.0
Dry manure	77,770.0	19,528.0	106,720.0
Liquid manure	154,176.0	23,652.0	147,460.0
Other	0.0	0.0	0.0
Atmospheric deposition	9,366.0		
Nutrients applied to all crops	302,607.3	48,082.0	259,082.0
Potential crop nutrient removal	248,340.0	38,646.6	197,279.4
Nutrient balance	54,267.3	9,435.4	61,802.6
Applied to removal ratio	1.22	1.24	1.31

B. POUNDS OF NITROGEN APPLIED BY NUTRIENT SOURCE



	Total N (lbs)	Total P (lbs)	Total K (lbs)
Irrigation sources	18,587.3	0.0	0.0
Existing soil nutrient content	0.0	0.0	0.0
Plowdown credit	0.0	0.0	0.0
Commercial fertilizer	42,708.0	4,902.0	4,902.0
Dry manure	77,770.0	19,528.0	106,720.0
Liquid manure	154,176.0	23,652.0	147,460.0
Other	0.0	0.0	0.0
Atmospheric deposition	9,366.0		
Nutrients applied to all crops	302,607.3	48,082.0	259,082.0
Potential crop nutrient removal	248,340.0	38,646.6	197,279.4
Nutrient balance	54,267.3	9,435.4	61,802.6
Applied to removal ratio	1.22	1.24	1.31

NUTRIENT BALANCE

A. WHOLE FARM BALANCE

	Total N (lbs)	Total P (lbs)	Total K (lbs)
Nutrients in storage from herd*			
Daily gross	3,474.2	568.1	1,747.8
Annual gross	1,268,073.1	207,364.3	637,951.1
Net to pond storage after ammonia losses (30% loss applied)	736,072.7	171,537.8	531,625.9
Net to drylot storage after ammonia losses (30% loss applied)	151,578.5	35,826.4	139,198.0
Net in storage (30% loss applied)	887,651.2	207,364.3	670,823.9
Irrigation sources	18,587.3	0.0	0.0
Atmospheric deposition	9,366.0		
Imports	44,147.8	2,226.5	4,228.8
Exports	614,250.0	144,734.4	302,068.1
Potential crop nutrient removal	248,340.0	38,646.6	197,279.4
Nutrient balance	97,162.2	26,209.8	175,705.1
Nutrient balance ratio	1.39	1.68	1.89

* Potassium excretion from milk cows and dry cows only.

SAMPLING AND ANALYSIS PLAN

A. MANURE SAMPLING AND ANALYSIS PLAN

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

A. MANURE SAMPLING AND ANALYSIS PLAN (CONTINUED)

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

A. MANURE SAMPLING AND ANALYSIS PLAN (CONTINUED)

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Each 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.	Corral Solids Settling Basin Solids	Date exported and total weight (tons) exported	Percent moisture

B. PROCESS WASTEWATER SAMPLING AND ANALYSIS PLAN

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Anually	A composite or grab sample prior to blending with irrigation water per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Wastewater Storage Pond #1 Wastewater Storage Pond #2	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.	Wastewater Storage Pond #1 Wastewater Storage Pond #2	None required	General minerals, including: calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, and chloride

B. PROCESS WASTEWATER SAMPLING AND ANALYSIS PLAN (CONTINUED)

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Each application	For each pond, a composite or grab sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Wastewater Storage Pond #1 Wastewater Storage Pond #2	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.	Wastewater Storage Pond #1 Wastewater Storage Pond #2	Date applied and electrical conductivity	Nitrate-nitrogen (only when pond is aerated), un-ionized ammonia-nitrogen, total Kjeldahl nitrogen, total phosphorus, total potassium, and total dissolved solids

C. SOIL SAMPLING AND ANALYSIS PLAN

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

C. SOIL SAMPLING AND ANALYSIS PLAN (CONTINUED)

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.	Airstrip - 53 Acres Ricks 50 - 48 Acres Pump - 15 Acres Justin's - 18 Acres ET-Vincent - 34 Acres Pit - 14 Acres RV Barn - 38 Acres Browns West - 4 Acres Browns East - 32 Acres Lamb's - 36 Acres Cabral's - 94 Acres 7/7 - 35 Acres Devin's - 36 Acres Goodlow's - 34 Acres Shop -11 Acres Mitchell Trees - 45 Acres Art's - 36 Acres Jones - 72 Acres Edwards - 20 Acres	None required	Soluble phosphorus
Spring pre-plant for each crop	For each field, a composite sample per the "Approved Sampling Procedures for Nutrient and Groundwater Monitoring at Existing Milk Cow Dairies" will be collected.	Airstrip - 53 Acres Ricks 50 - 48 Acres Pump - 15 Acres Justin's - 18 Acres ET-Vincent - 34 Acres Pit - 14 Acres RV Barn - 38 Acres Browns West - 4 Acres Browns East - 32 Acres Lamb's - 36 Acres Cabral's - 94 Acres 7/7 - 35 Acres Devin's - 36 Acres Goodlow's - 34 Acres Shop -11 Acres Mitchell Trees - 45 Acres Art's - 36 Acres Jones - 72 Acres Edwards - 20 Acres	None required	0 to 1 foot: Nitrate-nitrogen and organic matter 1 to 2 foot: Nitrate-nitrogen

D. PLANT TISSUE SAMPLING AND ANALYSIS PLAN

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

D. PLANT TISSUE SAMPLING AND ANALYSIS PLAN (CONTINUED)

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.	Airstrip - Forage/Corn Ricks 50 - Forage/Corn Pump - Forage/Corn Justin's - Forage/Corn ET-Vincent - Forage/Corn Pit - Forage/Corn RV Barn - Forage/Corn Browns West - Forage/Corn Browns East - Forage/Corn Lamb's - Forage/Corn Cabral's - Forage/Corn 7/7 - Forage/Corn Devin's - Almonds Goodlow's - Almonds Shop - Almonds Mitchell Trees - Almonds Art's - Alfalfa Jones - Alfalfa Edwards - Alfalfa	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

E. IRRIGATION WATER SAMPLING AND ANALYSIS PLAN (CONTINUED)

			Minimum data collection requirements	
Frequency	Sampling Methods	Source	Field Analytes	Lab Analytes
Each fresh water irrigation event for each land application area	Irrigation Well 1 Mitchell - flow rate multiplied by runtime Irrigation Well 2 Mitchell Trees - flow rate multiplied by runtime Irrigation Well 3 Browns - flow rate multiplied by runtime Irrigation Well 4 ET Vincent - flow rate multiplied by runtime Irrigation Well 5 RV Barn - flow rate multiplied by runtime Irrigation Well 6 - Cabrals - flow rate multiplied by runtime TID Canal - flow rate multiplied by runtime	Irrigation Well 1 Mitchell Irrigation Well 2 Mitchell Trees Irrigation Well 3 Browns Irrigation Well 4 ET Vincent Irrigation Well 5 RV Barn Irrigation Well 6 - Cabrals TID Canal	Date applied and volume (gallons or acre-inches) applied	None required
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.	Irrigation Well 1 Mitchell Irrigation Well 2 Mitchell Trees Irrigation Well 3 Browns Irrigation Well 4 ET Vincent Irrigation Well 5 RV Barn Irrigation Well 6 - Cabrals TID Canal	None required	Electrical conductivity, total dissolved solids, and total nitrogen

F. GROUNDWATER MONITORING SAMPLING AND ANALYSIS PLAN

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

F. GROUNDWATER MONITORING SAMPLING AND ANALYSIS PLAN (CONTINUED)

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

NUTRIENT MANAGEMENT PLAN REVIEW

A. NUTRIENT MANAGEMENT PLAN REVIEW

Person who created the NMP: Ramos, Joe *See above for contact information.*
Date the NMP was drafted: 11/17/2016
Person who approved the final NMP: Ramos, Joe *See above for contact information.*
Date of NMP implementation: 11/17/2016

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: Figures 3-8

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: N/A

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: Figures 3-8

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: ROBERT GIOLETTI AND SONS DAIRY INC

Physical address of dairy:

10213 W MAIN ST	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 — DATE 9/13/17

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 9/13/17

DEVIN ROBERT GIOLETTI
PRINT OR TYPE NAME — PRINT OR TYPE NAME

DATE — DATE

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

STATEMENTS OF COMPLETION

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

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

A. DAIRY FACILITY INFORMATION

Name of dairy or business operating the dairy: ROBERT GIOLETTI AND SONS DAIRY INC

10213 W MAIN ST	TURLOCK	Stanislaus	95380
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

Operator name: _____ Telephone no.: _____ _____
Landline Cellular

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

Legal owner name: GIOLETTI, DEVIN ROBERT Telephone no.: (209) 667-6024 (209) 606-7886
Landline Cellular

118 N BLAKER RD	TURLOCK	CA	95380
Mailing Address Number and Street	City	State	Zip Code

B. STATEMENT OF COMPLETION DUE 1 JULY 2008

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

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

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

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

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

☐ **Item II Sampling and Analysis Plan**

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

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

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

☐ Yes ☐ No

C. STATEMENT OF COMPLETION DUE 31 DECEMBER 2008

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

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

D. STATEMENT OF COMPLETION DUE 1 JULY 2009

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

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

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

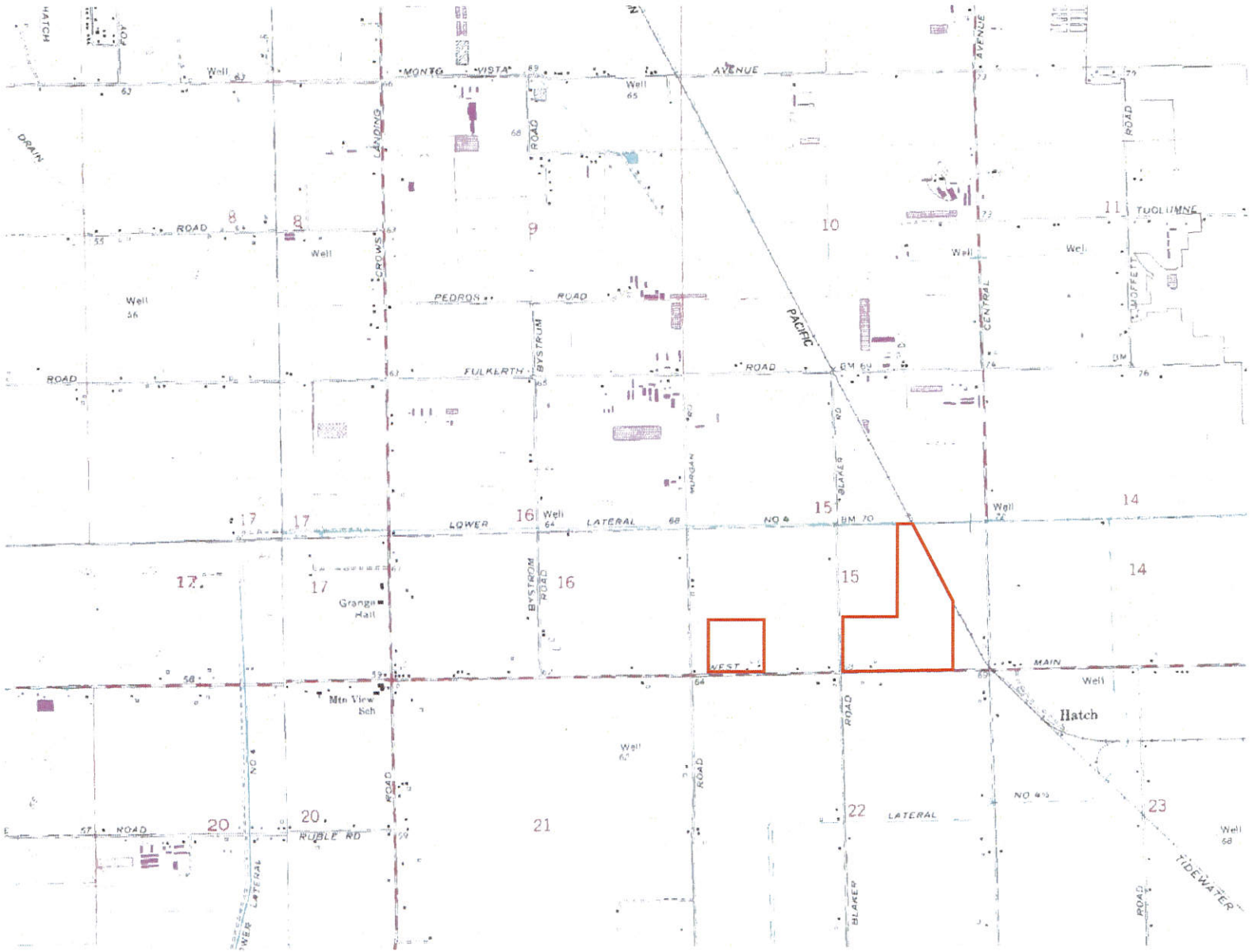
Has Item III (Nutrient Budget) of the Nutrient Management Plan been certified by a Certified Nutrient Management Specialist as required in the General Order?

☐ Yes ☐ No

E. CERTIFICATION STATEMENT

I certify under penalty of law that I have completed the items of the Nutrient Management Plan that are checked in Parts B, C and/or D above for the dairy identified in Part A above and that the appropriate certified nutrient management specialist has certified the items requiring such certification as noted in part B and/or D above and that I have personally examined and am familiar with the information submitted in Parts A, B, C and D of this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
DEVIN ROBERT GIOLETTI	
PRINT OR TYPE NAME	PRINT OR TYPE NAME
DATE	DATE



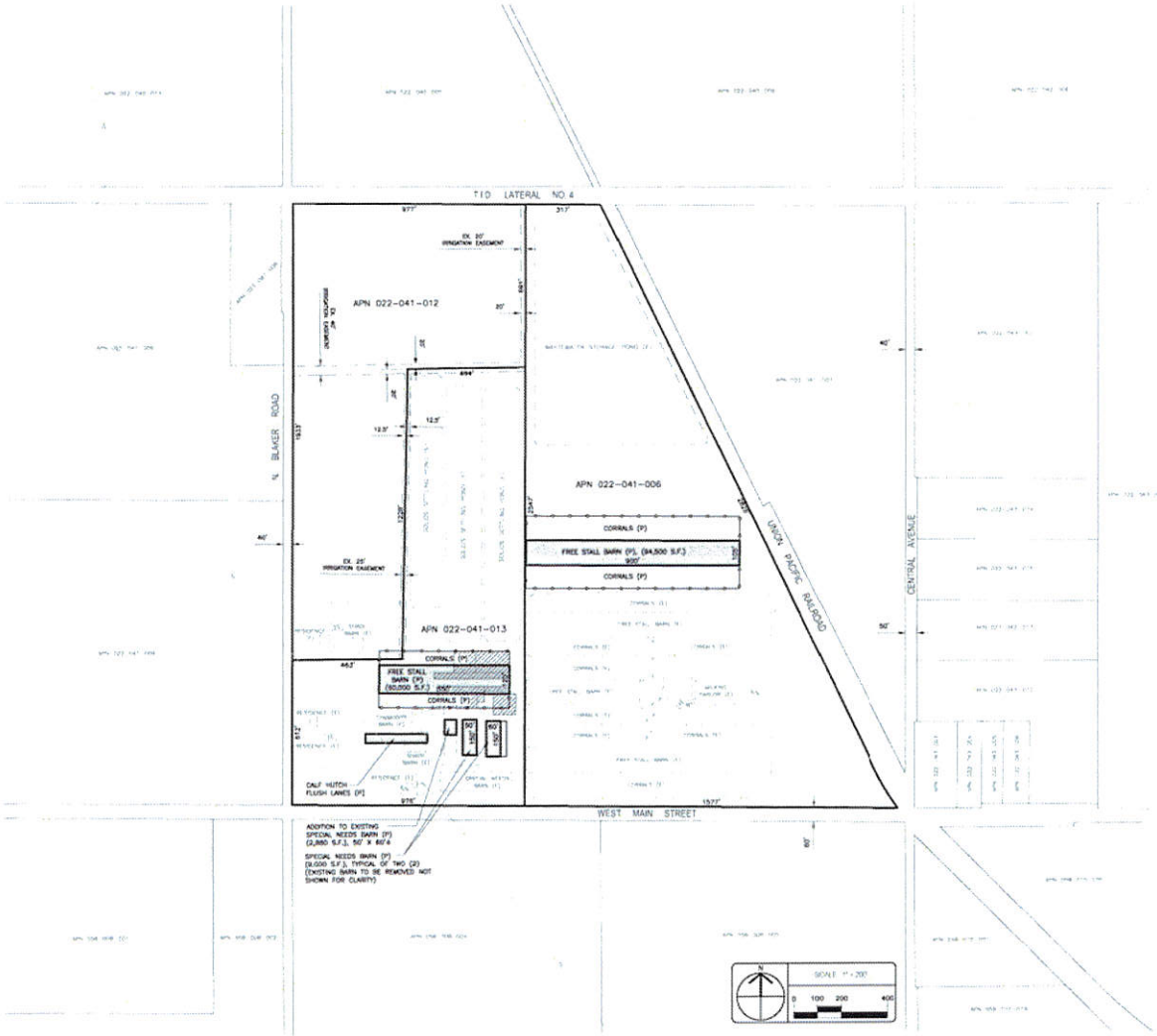
LEGEND

Facility Boundary

N

Ag Services, Inc.	SCALE: 0 500 1000 APPROXIMATE SCALE IN FEET	ROBERT GIOLETTI & SONS DAIRY TURLOCK, CA		**FIGURE 1** TOPOGRAPHIC MAP
	PROJECT NO. FRA-00	DATE: 12/6/16	DRAWN BY: SB	APP. BY: JR

Gioletti & Sons

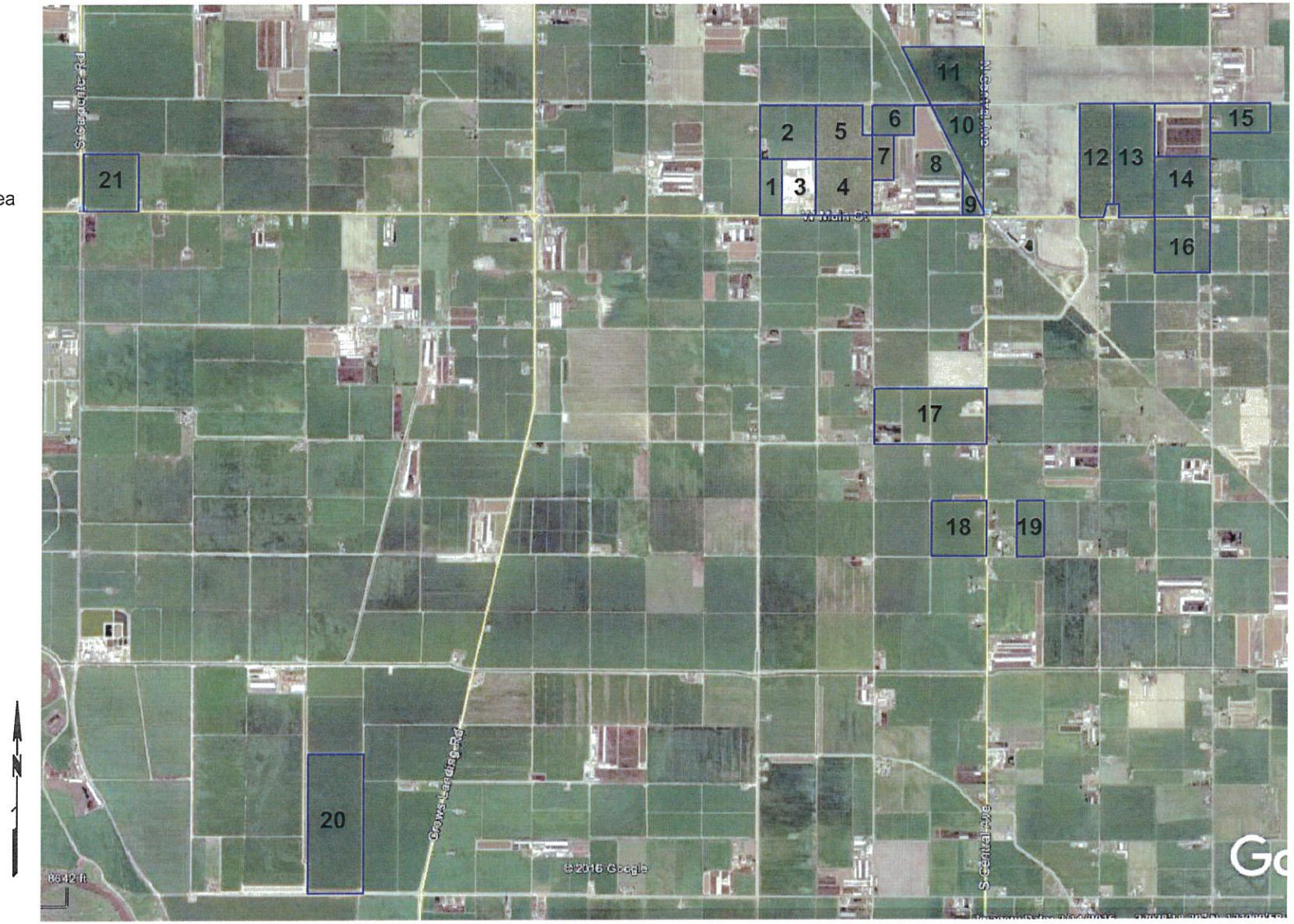


Ag Services, Inc.	SCALE: 0 — 6,000 — 12,000 APPROXIMATE SCALE IN FEET	ROBERT GIOLETTI & SONS DAIRY TURLOCK, CA			**FIGURE 1** SITE LOCATION MAP
	PROJECT NO. FRA-00	DATE: 12/6/16	DRAWN BY: SB	APP. BY: JR	Gioletti & Sons

LEGEND

Owned Land

1 - Pit
2 - ET-Vincent
3 - Feed Storage Area
4 - Devin's
5 - Goodlow's
6 - Pump
7 - Shop
8 - Dairy Facility
9 - Brown's West
10 - Brown's East
11 - Rick's 50
12 - Mitchell Trees
13 - Airstrip
14 - RV Barn
15 - Justin's
16 - Lamb's
17 - Jones
18 - Art's
19 - Edwards
20 - Cabral's
21 - 7-7



120

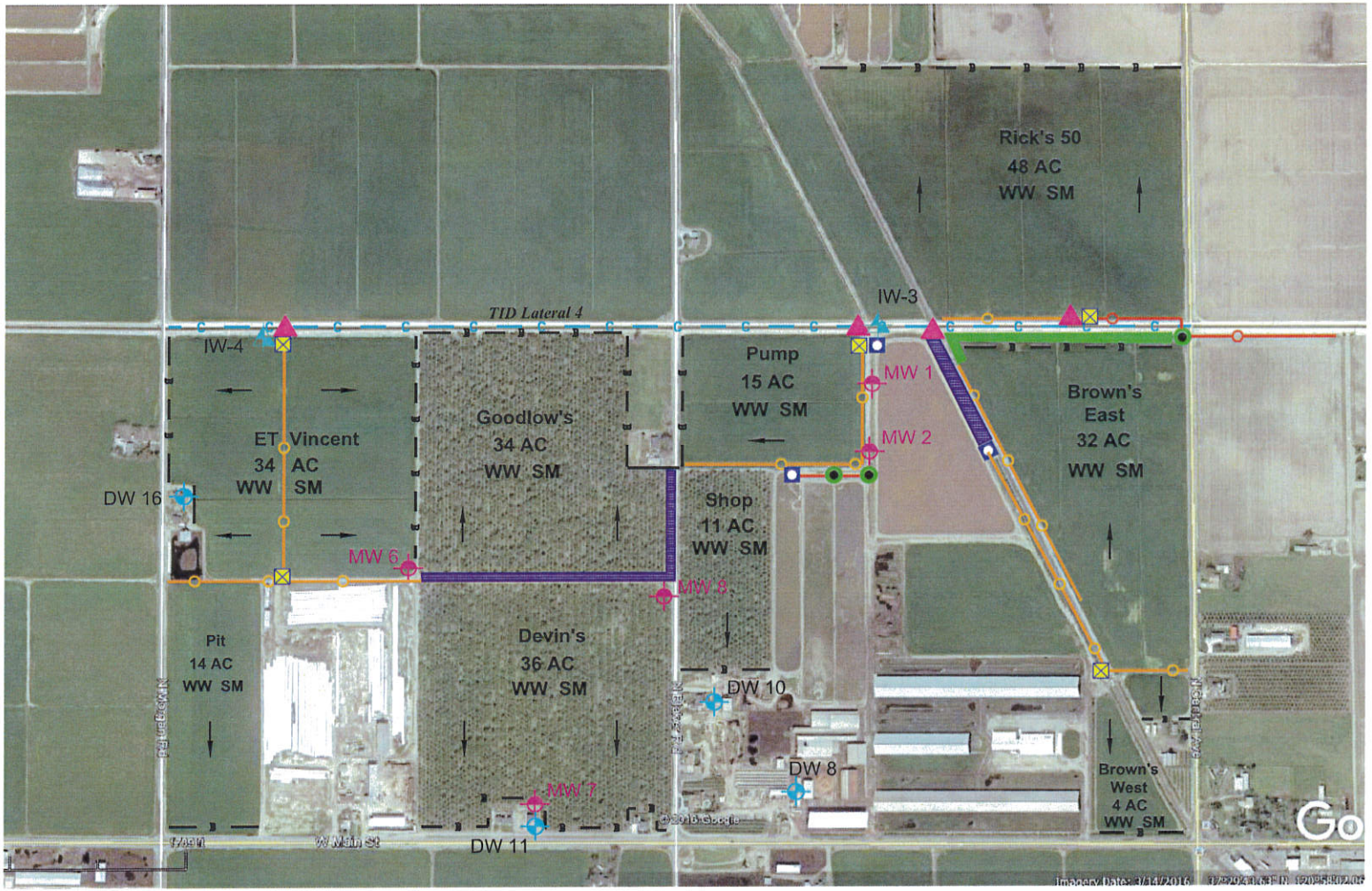
Ag Services, Inc.	SCALE: 0 3500 7000 APPROXIMATE SCALE IN FEET	ROBERT GIOLETTI AND SONS STANISLAUS COUNTY, CA	**FIGURE 3** OVERVIEW MAP	
PROJECT NO. FRA-00	DATE: 11/18/16	DRAWN BY: SB	APP. BY: SL	Gioletti & Sons

LEGEND

- Lagoon Transfer Box
- Gate Valve
- Mixing Box
- Wastewater Transfer Pump
- Irrigation Well
- Domestic Well
- Monitoring Well
- Field Flow Direction
- Wastewater Pipeline
- Irrigation Pipeline
- C — Canal
- B — Bermed
- Irrigation Ditch
- Wastewater Transfer Ditch
- Tailwater Flow
- SM — Solid Manure
- WW — Wastewater

Field APN's

ET Vincent	-	022-041-001
Pit	-	022-041-010
Goodlows	-	022-041-009
Devin's	-	022-041-004
Pump	-	022-041-012
Shop	-	022-041-012
Brown's West	-	022-041-006
Brown's East	-	022-041-007
Rick's 50	-	022-040-009



SCALE:
0 800 1600
APPROXIMATE SCALE IN FEET

ROBERT GIOLETTI AND SONS
STANISLAUS COUNTY, CA

FIGURE 4
CROPLAND

PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	11/29/16	SB	SL

Ag Services, Inc.

Gioletti & Sons

LEGEND

- Lagoon Transfer Box
- Gate Valve
- Mixing Box
- Irrigation Well
- Domestic Well
- Wastewater Transfer Pump
- Field Flow Direction
- Wastewater Pipeline
- Irrigation Pipeline
- C — Canal
- B — Bermed
- SM — Solid Manure
- WW — Wastewater

Field APN's

Mitchell Trees	-	022-043-017
Airstrip	-	022-043-010
RV Barn	-	022-043-011
Justin's	-	022-045-043
Lamb's	-	058-010-009

Ag Services, Inc.

SCALE:
0 800 1600
APPROXIMATE SCALE IN FEET

ROBERT GIOLETTI AND SONS
STANISLAUS COUNTY, CA

FIGURE 5
CROPLAND

PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	11/22/16	SB	SL

Gioletti & Sons

LEGEND

- Domestic Well
- Field Flow Direction
- Irrigation Pipeline
- B — Bermed
- SM Solid Manure

Field APN's

Jones	-	058-009-008
	-	058-009-007
	-	058-009-006
Art's	-	058-018-002
Edwards	-	058-017-007

N

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Ag Services, Inc.

SCALE:
0 800 1600
APPROXIMATE SCALE IN FEET

ROBERT GIOLETTI AND SONS
STANISLAUS COUNTY, CA

FIGURE 6
CROPLAND

PROJECT NO.	DATE:	DRAWN BY:	APP. BY:
FRA-00	11/18/16	SB	SL

Gioletti & Sons

LEGEND

- Drain
- Gate Valve
- Irrigation Well
- Field Flow Direction
- Irrigation Pipeline
- Community Drain
- C — Canal
- SM — Solid Manure

Field APN's

Cabral's - 058-023-007

Ag Services, Inc.	SCALE: 0 800 1600 APPROXIMATE SCALE IN FEET	ROBERT GIOLETTI AND SONS STANISLAUS COUNTY, CA			**FIGURE 7** CROPLAND
	PROJECT NO. FRA-00	DATE: 11/29/16	DRAWN BY: SB	APP. BY: SL	Gioletti & Sons

LEGEND

- Drain
- Field Flow Direction
- Irrigation Pipeline
- Community Drain
- SM — Solid Manure

Field APN's

7-7 - 022-034-002

FR Ag Services, Inc.	SCALE: 0 400 800 APPROXIMATE SCALE IN FEET	ROBERT GIOLETTI AND SONS STANISLAUS COUNTY, CA		**FIGURE 8** CROPLAND
	PROJECT NO. FRA-00	DATE: 11/29/16	DRAWN BY: SB	APP. BY: SL

Gioletti & Sons

March 27, 2018

Kristin Doud
Stanislaus County
Planning and Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354

Project: Initial Study and Negative Declaration for Use Permit Application No. PLN2016-0132 – Robert Gioletti & Sons Dairy, Inc.

District CEQA Reference No: 20180050

Dear Ms. Doud:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Initial Study and Negative Declaration for the project referenced above located at 9769 & 10213 West Main Street, 118, 132, & 136 N. Blaker Road, on the northeast corner of West Main Street and North Blaker Road, between Central Avenue and North Blaker Road, west of the city of Turlock, CA. The proposed project consists of expanding an existing dairy operation located on three parcels, currently permitted through the Central Valley Regional Water Quality Control Board to house a maximum of 2,760 mature cows and 250 support stock, to a maximum of 3,800 mature cows and 890 support stock, including the addition of corrals, two freestall barns (94,500 square feet and 60,000 square feet in size), two 9,000 square foot special needs barns, a 2,880 square foot addition to an existing special needs barn, and a calf hutch with flush lanes (Project).

The District has reviewed the additional information provided by the Project proponent, as requested by Stanislaus County in response to our last comments, and offers the following comments:

Emissions Analysis

1) Based on new 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) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

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

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 Stephanie Pellegrini at (559) 230-5820 and provide the reference number at the top of the letter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Brian Clements
Program Manager

AM: sp

NEGATIVE DECLARATION

NAME OF PROJECT: Use Permit Application No. PLN2016-0132 – Robert Gioletti & Sons Dairy, Inc.

LOCATION OF PROJECT: 9769 & 10213 West Main Street, 118, 132, & 136 N. Blaker Road, on the northeast corner of West Main Street and N. Blaker Road, between Central Avenue and N. Blaker Road, west of the city of Turlock. APN: 022-041-006, 022-041-013, 022-041-012.

PROJECT DEVELOPERS: Robert Gioletti & Sons Dairy, Inc.
118 N. Blaker Rd.
Turlock, CA 95380

DESCRIPTION OF PROJECT: This is a request to expand an existing dairy operation, located on three parcels (56.2, 28.16, and 28.62 acres in size), currently permitted through the Central Valley Regional Water Quality Control Board to house a maximum of 2,760 mature cows and 250 support stock, to a maximum of 3,800 mature cows and 890 support stock. The request includes the addition of corrals, and two freestall barns (94,500 square feet, and 60,000 square feet in size), two 9,000 square foot special needs barns, a 2,880 square foot addition to an existing special needs barn, and a calf hutch with flush lanes. The feed is stored on two parcels 37.84 acres in size (APNs: 022-041-010 and 022-041-011). The nutrients produced by the herd will be utilized to fertilize approximately 700 acres of irrigated cropland farmed by the applicants.

Based upon the Initial Study, dated **December 22, 2017**, the Environmental Coordinator finds as follows:

1. This project does not have the potential to degrade the quality of the environment, nor to curtail the diversity of the environment.

2. This project will not have a detrimental effect upon either short-term or long-term environmental goals.

3. This project will not have impacts which are individually limited but cumulatively considerable.

4. This project will not have environmental impacts which will cause substantial adverse effects upon human beings, either directly or indirectly.

The Initial Study and other environmental documents are available for public review at the Department of Planning and Community Development, 1010 10th Street, Suite 3400, Modesto, California.

Initial Study prepared by: Kristin Doud, Senior Planner

Submit comments to: Stanislaus County
Planning and Community Development Department
1010 10th Street, Suite 3400
Modesto, California 95354

SUMMARY OF RESPONSES FOR ENVIRONMENTAL REVIEW REFERRALS

PROJECT: USE PERMIT APPLICATION NO. PLN2016-0132 - GIOLETTI & SONS DAIRY, INC.

REFERRED TO:				RESPONDED		RESPONSE			MITIGATION MEASURES		CONDITIONS	
	2 WK	30-DAY	PUBLIC HEARING NOTICE	YES	NO	WILL NOT HAVE SIGNIFICANT IMPACT	MAY HAVE SIGNIFICANT IMPACT	NO COMMENT NON CEQA	YES	NO	YES	NO
CA DEPT OF CONSERVATION, LAND RESOURCES	X	X	X		X							
CA DEPT OF FISH & WILDLIFE	X	X	X		X							
CA OPR STATE CLEARINGHOUSE	X	X	X	X				X		X		X
CA CENTRAL VALLEY RWQCB	X	X	X	X				X		X	X	
COOPERATIVE EXTENSION	X	X	X		X							
FIRE PROTECTION DIST: MOUNTAIN VIEW FIRE	X	X	X		X							
IRRIGATION DISTRICT: TURLOCK	X	X	X	X				X		X	X	
MOSQUITO DISTRICT: TURLOCK	X	X	X		X							
MT VALLEY EMERGENCY MEDICAL	X	X	X		X							
PACIFIC GAS & ELECTRIC	X	X	X		X							
RAILROAD: UNION PACIFIC	X	X	X		X							
SAN JOAQUIN VALLEY APCD	X	X		X				X		X	X	
SCHOOL DISTRICT 1: CHATOM UNION	X	X	X		X							
SCHOOL DISTRICT 1: TURLOCK JOINT UNIFIED	X	X	X		X							
STAN CO AG COMMISSIONER	X	X	X		X							
STAN CO BUILDING PERMITS DIVISION	X	X	X	X				X		X	X	
STAN CO CEO	X	X	X		X							
STAN CO DER: ENV RES & DAIRY DIVISIONS	X	X	X	X				X		X		X
STAN CO ERC	X	X	X		X							
STAN CO FARM BUREAU	X	X	X		X							
STAN CO HAZARDOUS MATERIALS	X	X	X		X							
STAN CO PUBLIC WORKS	X	X	X	X				X		X	X	
STAN CO SHERIFF	X	X	X		X							
STAN CO SUPERVISOR DIST #2: CHIESA	X	X	X		X							
STAN COUNTY COUNSEL	X	X	X		X							
STANISLAUS FIRE PREVENTION BUREAU	X	X	X	X				X		X		X
STANISLAUS LAFCO	X	X	X		X							
SURROUNDING LAND OWNERS	X	X	X		X							
TELEPHONE COMPANY: AT&T	X	X	X		X							
US FISH & WILDLIFE	X	X	X		X							
USDA NRCS	X	X	X		X							