DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

1010 10th Street, Suite 3400, Modesto, CA 95354
Phone: 209.525.6330 Fax: 209.525.5911

Striving to be the Best

CEQA Referral
Initial Study and
Notice of Intent to Adopt a Mitigated Negative Declaration

Date: **November 2, 2016**

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

From: **Miguel Galvez, Deputy Director, Planning and Community Development**

Subject: **USE PERMIT APPLICATION NO. PLN2016-0055 - RECOLOGY**

Comment Period: **November 2, 2016 – December 2, 2016**

Respond By: **December 2, 2016**

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

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

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

Applicant: **Recology Blossom Valley Organics – North**

Project Location: **3909 Gaffery Road, northeast corner of Gaffery Road and Delta Mendota Canal, east of Koster Road and west of Welty Road in the Vernalis area.**

APN: **016-003-010, 016-016-023, and 265-010-21 (San Joaquin County)**

Williamson Act Contract: **1975-1888**

General Plan: **AG (Agriculture)**

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

Project Description: **Request to amend Use Permit 2006-0037, to allow for a reorganized operations plan and on-site improvements for an existing composting facility on a 112.45 acre parcel (3909 Gaffery Road) and to establish a maintenance and truck washing station on a 38.47 acre parcel (3432 Gaffery Road). Both parcels are located within the A-2-40 (General Agriculture) zoning district, east of Koster Road and west of Welty Road, in the Vernalis area.**

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

USE PERMIT APPLICATION NO. PLN2016-0055 – RECOLOGY
Attachment A

Distribution List

X	CA DEPT OF CONSERVATION Land Resources / Mine Reclamation		STAN CO ALUC
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	CA STATE LANDS COMMISSION	X	STAN CO ERC
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	CENTRAL VALLEY FLOOD PROTECTION	X	STAN CO HAZARDOUS MATERIALS
	CITY OF:		STAN CO PARKS & RECREATION
	COMMUNITY SERVICES/SANITARY DIST	X	STAN CO PUBLIC WORKS
X	COOPERATIVE EXTENSION		STAN CO RISK MANAGEMENT
X	COUNTY OF: SAN JOAQUIN	X	STAN CO SHERIFF
X	FIRE PROTECTION DIST: WEST STAN	X	STAN CO SUPERVISOR DIST #5: DeMARTINI
X	HOSPITAL DIST: DEL PUERTO	X	STAN COUNTY COUNSEL
X	WATER DIST: DEL PUERTO	X	StanCOG
X	MOSQUITO DIST: TURLOCK	X	STANISLAUS FIRE PREVETION BUREAU
X	MOUNTIAN VALLEY EMERGENCY MEDICAL SERVICES	X	STANISLAUS LAFCO
	MUNICIPAL ADVISORY COUNCIL:	X	SURROUNDING LAND OWNERS (on file w/the Clerk to the Board of Supervisors)
X	PACIFIC GAS & ELECTRIC	X	TELEPHONE COMPANY:
	POSTMASTER:		TRIBAL CONTACTS (CA Government Code §65352.3)
	RAILROAD:	X	TRIBAL CONTACT – Torres Martinez Desert Cahuilla Indians (All)
X	SAN JOAQUIN VALLEY APCD	X	US ARMY CORPS OF ENGINEERS
X	SCHOOL DIST 1: PATTERSON JOINT UNIFIED	X	US FISH & WILDLIFE
X	SCHOOL DIST 2: RISING SUN ELEMENTARY SCHOOL		US MILITARY (SB 1462) (7 agencies)
	STAN ALLIANCE		USDA NRCS
X	STAN CO AG COMMISSIONER	X	DEPT OF WATER RESOURCES – CALIFORNIA AQUEDUCT
	TUOLUMNE RIVER TRUST		

STANISLAUS COUNTY
CEQA REFERRAL RESPONSE FORM

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

FROM: _____

SUBJECT: **USE PERMIT APPLICATION NO. PLN2016-0055 - RECOLOGY**

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

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

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

1.
2.
3.
4.

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

1.
2.
3.
4.

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

_____

_____

Response prepared by:

_____

Name Title Date

FIRSTCARBONSOLUTIONS™

DRAFT
Recology Blossom Valley Organics North Facility
Initial Study/Mitigated Negative Declaration
Stanislaus County, California

State Clearinghouse Number 0000000000

Prepared for:
Stanislaus County Planning and Community Development
1010 10th St., Suite 3400
Modesto, CA 95354
209.525.6330

Contact: Miguel Galvez, Deputy Director

Prepared by:
FirstCarbon Solutions
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Walnut Creek, CA 94597
925.357.2562

Contact: Mary Bean, Project Director
Andrew Hill, Project Manager

Report Date: November 2, 2016

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ACRONYMS AND ABBREVIATIONS

$\mu g/m^3$	micrograms per cubic meter
°F	degrees Fahrenheit
°C	degrees Celsius (Centigrade)
ARB	California Air Resources Board
CEQA	California Environmental Quality Act
mph	miles per hour
VOC	volatile organic compounds

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SECTION 1: INTRODUCTION

1.1 - Purpose

The purpose of this Initial Study/Mitigated Negative Declaration (IS/MND) is to identify any potential environmental impacts from implementation of the Recology Blossom Valley Organics North Facility Project (project) near Vernalis, California. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15367, the Stanislaus County Planning and Community Development (County) is the Lead Agency in the preparation of this IS/MND and any additional environmental documentation required for the project. The County has discretionary authority over the proposed project. The intended use of this document is to determine the level of environmental analysis required for the project and to provide the basis for input from public agencies, organizations, and interested members of the public.

The remainder of this section provides a brief description of the project location and the characteristics of the project. Section 2 includes an environmental checklist giving an overview of the potential impacts that may result from project implementation. Section 3 elaborates on the information contained in the environmental checklist, along with justification for the responses provided in the environmental checklist.

1.2 - Project Location

The Recology Blossom Valley Organics North (BVON) Composting Facility (Facility) is located on a 161.78-acre property composed of three parcels at 3909 Gaffery Road in the vicinity of Vernalis, Stanislaus County (see Exhibit 1). Assessor Parcel Number (APN) 016-003-010 (112.45 acres) and APN 016-016-023 (38.47 acres) are located in Stanislaus County, while APN 265-010-21 (10.82 acres) is in San Joaquin County. Composting activities currently take place within an area of approximately 126 acres on APNs 016-003-010 and 265-010-21, while a 2.17-acre portion of APN 016-016-023 is currently in use as a machine shop. Access to the site is taken via Gaffery Road, with regional access via Koster Road or Welty Road and State Route 132 (SR-132).

1.3 - Environmental Setting

The site is located on compacted, well-drained clay loam soil and a paved area that was historically an airport runway. The topography is generally flat, with minor graded slopes to promote drainage and collection of stormwater runoff. Land uses within 1 mile of the facility include agricultural fields to the north and to the south and scattered rural residences and the Delta-Mendota Canal approximately 200 feet to the west. Located to the east is Sun Dry Products, a facility authorized as an industrial hauler and for the reclamation and recycling of agricultural products, and for the processing of commercial feed products and construction debris (see Exhibit 2).

Formerly known as the Grover Environmental Products Composting Facility, the BVON facility has been used for composting operations since 1991. The site and surrounding properties are designated General Agriculture in both the Stanislaus County and San Joaquin County General Plans.

The two parcels of the project site in Stanislaus County are zoned A-2 General Agricultural, which allows agriculture-related commercial and industrial uses, including composting facilities, with a use permit. The parcel in San Joaquin County is zoned General Agriculture, a zone established to preserve agricultural lands for the continuation of commercial agriculture enterprises.

As shown in Exhibit 3, composting windrows are located in the central and northern portions of the site, occupying the majority of the surface of the site. Office and break rooms exist at the southern edge of the site, behind a 22-foot high mesh fence. An earthen berm runs along the southwestern perimeter of the site and chain link fencing along a portion of the eastern and southeastern perimeters of the site. There are two entry and exit points to the site along Gaffery Road. Trucks delivering incoming feedstock material travel on unpaved internal roads to the feedstock receiving and processing area in the central/eastern part of the site. Trucks off-hauling finished compost material travel on unpaved internal roads from the final product area to the weighing station at the southern end of the site, before exiting via Gaffery Road. There are rumble strips in place at the weighing station and exit point to limit the amount of soil carried off-site on truck tires.

Water supply for operation of the facility is from two agricultural wells on-site. The site also has a 5 percent allotment from the Delta-Mendota Canal, which is equivalent to 21 acre-feet. Septic tanks are used on-site, and are emptied three times per week by a private disposal company.

1.4 - Project Description

Recology Blossom Valley Organics—North, the project applicant, is proposing to continue operation of a composting facility on-site, albeit with a reorganized operations plan and on-site improvements. The project would not involve an increase in permitted capacity, the number of employees on-site, or an increase in truck trips over and above existing entitlements. The proposed operations plan and on-site improvements are described below.

1.4.1 - Composting Operations

The Facility is currently permitted to receive up to 2,000 tons per day of green, agricultural, and food materials for composting. The proposed project would not increase this overall capacity. Composting activities currently take place within an area of approximately 126 acres on APNs 016-003-010 and 265-010-21, as shown on Exhibit 3. With project implementation, incoming material would continue to be sorted and processed to remove non-compostable residuals within 72 hours of receipt at the Facility.

Generally, composting operations consist of the following processing steps: receiving, sorting, processing, active composting, curing and screening, and testing and shipment. The specific locations of the various operations on the compost pad are dynamic and are subject to change depending on the current processing operation, stockpile fire concerns, incoming feedstock characteristics, product sales, and variable vector, dust, and odor control activities. The current composting process takes approximately 90 to 120 days to complete, from the active composting phase through the curing phase.

The Facility would continue to operate and receive materials 24 hours per day, 7 days per week with up to 65 employees on-site during peak hours. Grinding, shredding and size-reduction operations on incoming feedstock occur from 5:00 a.m. to 10:00 p.m., Monday through Saturday, and on Sundays in the event of an emergency. Activities occurring at night may include fire watch, windrow turning, final screening of finished compost, and processing of incoming feedstock when necessary. Currently, the Facility receives 80 to 120 trucks per day, including shipments via belt trailers, transfer trucks, and pickups. Additionally, during peak sales season, typically in October and April, about 68 compost hauling vehicles per day leave the Facility carrying finished product. At other times of the year, off-hauling of finished product involves an average of approximately 5 truck trips per day. Truck trips to and from the site are generally concentrated during normal business hours. Trucks access the Facility via Gaffery Road, typically taking one of the following routes:

- SR-132 west from Interstate 5 (I-5) to South Koster Road, turning left onto Gaffery Road;
- SR-33 North, turning left onto Gaffery Road;
- SR-33 South to McCracken Road, turning right onto Gaffery Road.

1.4.2 - On-site Improvements

The project applicant is proposing a reorganization of composting operations at the Facility, including the following improvements. The location and phasing of the proposed improvements is shown on Exhibit 4:

- **Wastewater/Stormwater Infrastructure Improvements**—Improvements to the capture, conveyance, and treatment of wastewater and stormwater on-site in order to ensure compliance with General Wastewater Discharge Requirements for Composting Operations, adopted by the California State Water Resources Control Board in 2015. The permeability of the working surfaces would be reduced to prevent infiltration of wastewater or stormwater, primarily through traditional grading and compaction methods. Additionally, the two existing storage ponds would be expanded and lined (west storage pond: approximately 1.4 acres in size and 10.7 acre-feet in capacity; east storage pond: approximately 1.5 acres in size and 6.4 acre-feet in capacity), and a new treatment pond would be constructed (approximately 0.2 acre in size and 0.8 acre-foot in capacity). Wastewater from the Facility would be treated on-site in the aerated treatment pond and stored in the storage ponds until reused as process water for composting. All wastewater would be drained to below grade conveyance pipes and be directed to the lined treatment and storage ponds. In addition to liner systems, each pond would have leakage monitoring equipment and an aeration system to control and prevent odors and mosquito harborage. The treatment pond would utilize three 15-horsepower floating aerators, while the east and west storage ponds would utilize three 15-horsepower brush aerators. Because of the large capital expenditure required to perform these improvements, implementation would occur incrementally over a 6-year period. The first phase of implementation would include construction the stormwater conveyance and storage facilities on-site to be completed by November 30, 2016. Following this, 20 percent of the working surface improvements would be completed during each of the next 5 years, with full buildout completed by November 30, 2021. In total, approximately 30.1 acres of working surface improvements would be completed. The working surface improvements would

consist of traditional grading and compaction methods, soil remediation (addition of approximately 6 percent bentonite admixture), and, potentially, in-place grinding and mixing or removal of existing asphalt.

- **Aerated Static Pile System—**Installation of an aerated static pile (ASP) system to provide a constant flow of oxygen for the composting process in order to improve efficiency. With the ASP, the composting process would be completed in approximately 45 days, compared with the 90- to 120-day period required with windrow composting. The ASP system would also reduce emissions of volatile organic compounds (VOCs) and reduce anaerobic conditions for improved odor control. ASP systems typically consist of one or more aeration fans, aeration piping, electrical control panels, and improved concrete or asphalt or concrete surfaces. A pilot-scale ASP system will be operational by late 2016. The implementing the full-scale ASP system will require construction of an approximately 40-acre concrete pad located to the southeast of the feedstock receiving and processing area. Construction of the pad, and simultaneous transition from the current windrow composting process to the ASP system, will be phased in over 5 years beginning in summer 2017. With installation of the ASP system, Facility operations would remain within the 2,000-ton-per-day permit limit.
- **Public Water Supply System**—Construction of a public water supply system for the site compliant with requirements of the California Health and Safety Code. A new potable water supply well has been drilled south of Gaffery Road and west of the existing maintenance shop on-site. A proposed service line extension from the new well would run approximately 250 feet south and then approximately 175 feet east to connect with the existing service line that connects to the bathroom in the maintenance shop. An additional service line extension would run from the new well approximately 1,250 feet west along the north side of Gaffery Road to the existing service line that connects the administrative office and visitor parking area. A drinking water treatment system connected to the proposed well would also be installed. The drinking well and treatment system would be enclosed by a locked fence. Installation of the public water system would be completed by the end of 2016.
- **Relocation of Receiving and Processing Area for Incoming Feedstock**—In order to improve the ability to contain any litter from migrating off-site along both Gaffery Road and the Delta Mendota Canal, the materials processing and receiving area has been relocated from the previous location near the Facility entrance to a more central area of the site, located along the eastern property line as shown in Exhibit 4. As part of this relocation, the employee breakrooms have also been relocated from the entrance area to the central receiving area.
- **Additional Feedstock Pre-Processing Line—**A second pre-processing line identical to the existing pre-processing line would be installed adjacent to the first to aid in removing non-compostable residuals from the incoming feedstock material. As with the existing pre-processing line, feedstock materials would be initially reduced in size with a slow-speed shredder and then further reduced through a 4-inch screen before manual picking/sorting with suction fans. Installation of the second processing line should be completed by early 2017.
- **Expansion of Existing Litter and Dust Fence**—The 22-foot-tall mesh litter and dust fence that runs along the southern perimeter of the Facility is proposed to be extended approximately 300 feet north along the western property line and a cantilevered top will be added to further improve the ability to contain any litter from migrating off-site. Additionally, a similar 22-foot-

tall mesh fence with a cantilevered top is proposed internally at the site exit (approximately 850 feet in length) and entrance (approximately 150 feet in length) and in an L-shape around the southwestern corner of the finished screen area. Pending approval of the applicant's Use Permit, extension of the fencing could begin in spring 2017 and last approximately 1 month.

- **Installation of Dual Fence—**Two fences, each approximately 22 feet high with a cantilevered top, will be constructed inside the project site set back from the main truck access points to the site along the Gaffery Road frontage. The fence would be approximately 850 feet in length at the site exit and 150 feet in length at the site entrance. Improvements will include extensions of the existing combination wood slat/fabric fence, additional fencing and landscaping. The improvements will be designed to catch wind-blown debris from the site before it can be blown off-site and onto adjoining properties. The new landscaping will help to establish a more cohesive corporate appearance along the property's edge, while additionally providing screening of site operations from view. Additionally, an internal 22-foot-high cantilevered fence with an L-shape will be constructed at the interior of the site around the southwestern corner of the finished screen area to capture airborne debris near the source.
- **Installation of a Fully Contained Equipment Wash**—A new truck wash area would be constructed on a concrete pad between the proposed water treatment system and the existing maintenance building. This 2.17-acre portion of APN 016-016-023 is currently in use as a machine shop. The equipment wash would be fully enclosed, and equipment contained in the structure would collect, filter, and re-use wash water. Installation would take place in summer 2017.

The project also involves implementation of a Litter Management Plan as well as an Odor Control Plan. In addition to the physical modifications described above, the Litter Management Plan stipulates operation measures and best practices to contain litter and airborne debris within the site. These measures include regular, daily litter patrol on-site and along the perimeter of the property; temporarily discontinuing the sorting of incoming feedstock material during times of high winds; use of a vacuum truck to collect litter; and use of portable skid-mounted litter fences in the interior of the site to capture airborne debris near the source.

1.5 - Required Discretionary Approvals

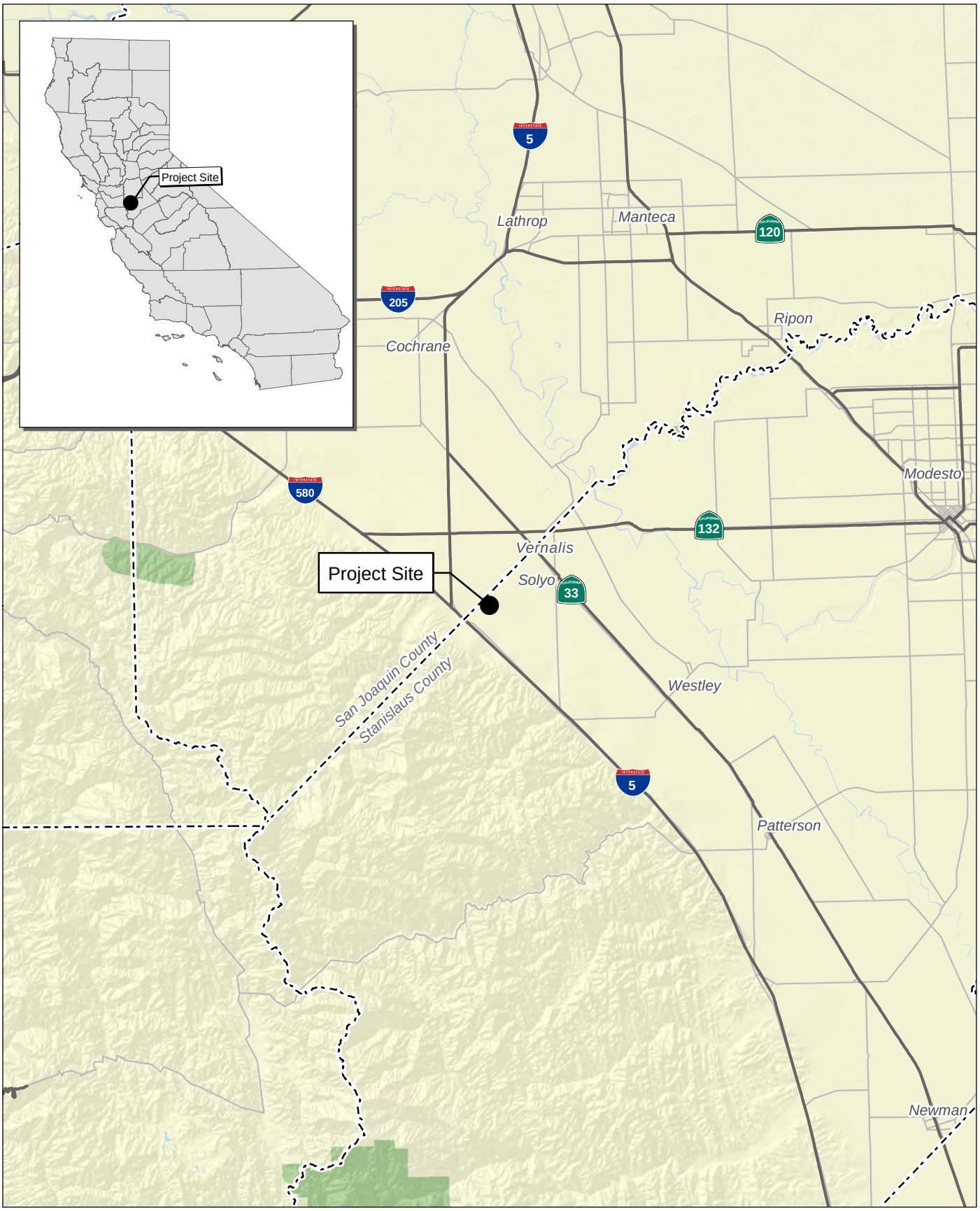
The proposed project would require the following discretionary approvals:

- Stanislaus County: Use Permit; Building Permit; Grading Permit; Encroachment Permit
- San Joaquin Valley Air Pollution Control District (SJVAPCD): Air Permit for ASP System
- State of California Department of Resources Recycling and Recovery (CalRecycle) for Solid Waste Regulatory Oversight; Solid Waste Facility Permit
- Central Valley Regional Water Quality Control Board for compliance with General Waste Discharge Requirements for Composting Operations

1.6 - Intended Uses of this Document

This IS/MND has been prepared to determine the appropriate scope and level of detail of environmental analysis for the proposed project. This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the proposed project. The Draft IS/MND will be circulated for a minimum of 30 days, during which period comments concerning the analysis contained in the IS/MND should be sent to:

Miguel Galvez, Deputy Director
Stanislaus County Planning and Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354
Phone: (209) 525-6330
Email: Galvezm@Stancounty.com



Source: Census 2000 Data, The CaSIL, FCS GIS 2016.

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Exhibit 1
Regional and Local Setting

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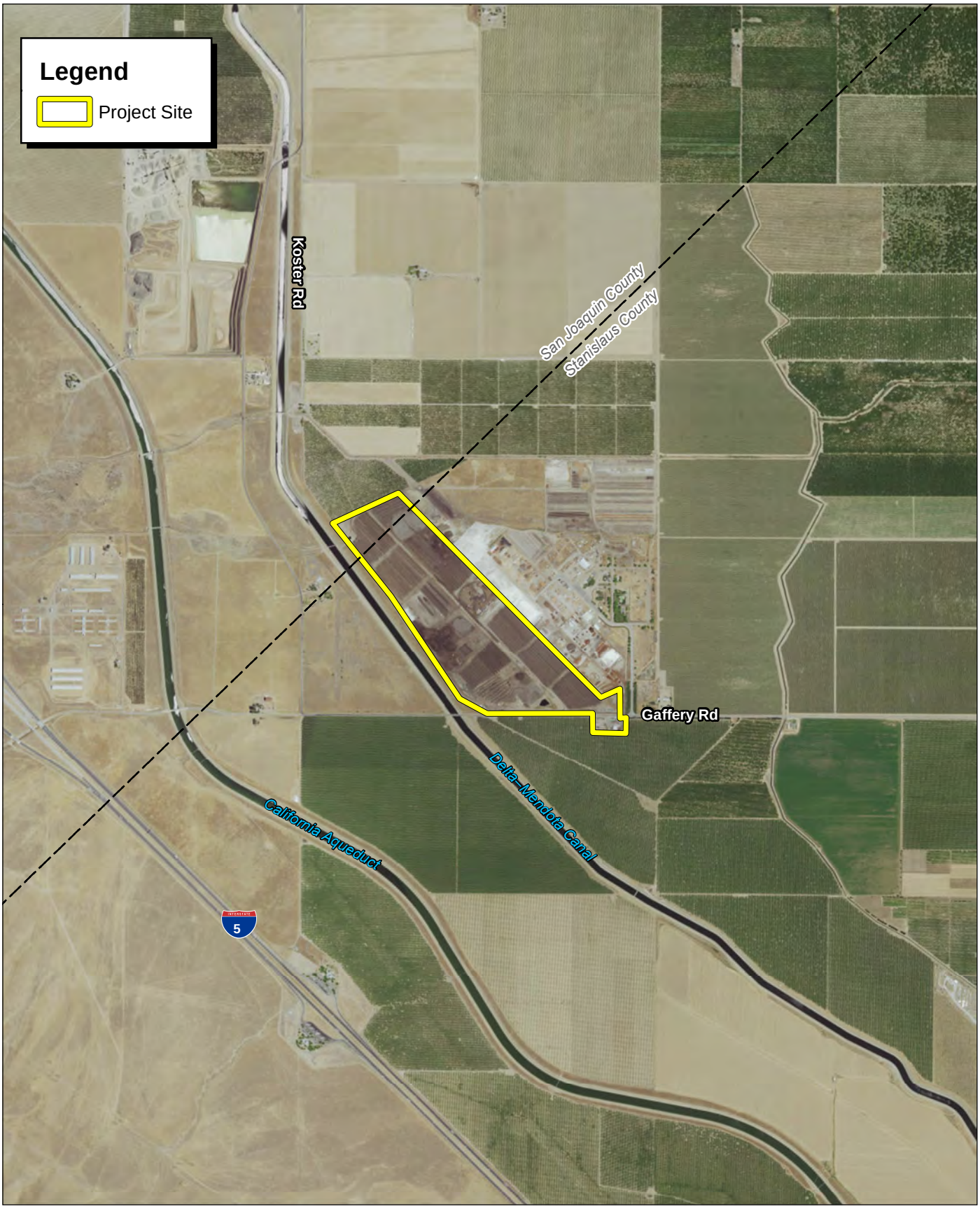

Source: ESRI Imagery, 2015

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2,000 1,000 0 2,000 Feet

Exhibit 2
Site and Surrounding Uses

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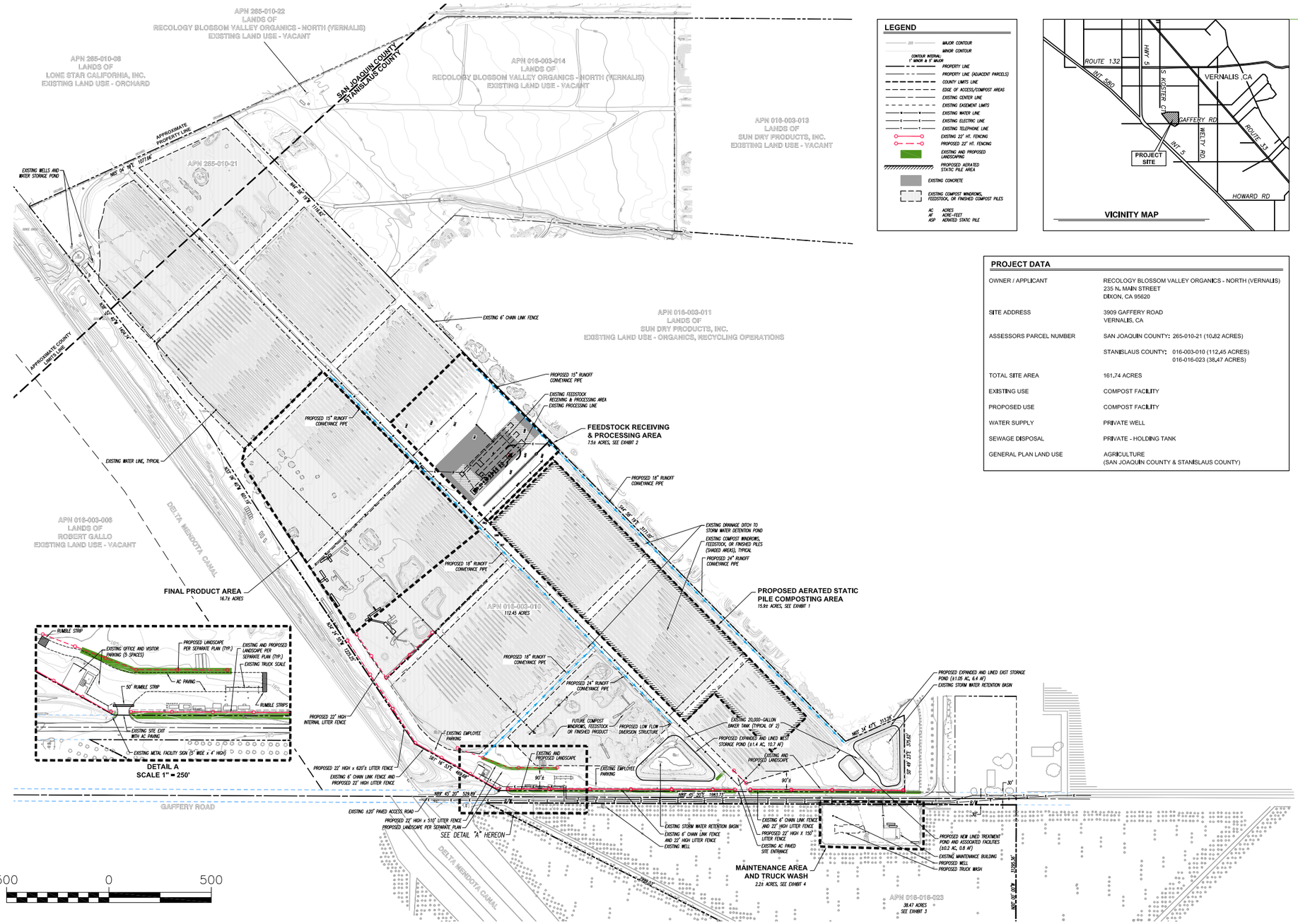

PROJECT DATA

OWNER / APPLICANT	RECOLOGY BLOSSOM VALLEY ORGANICS - NORTH (VERNALIS) 235 N. MAIN STREET DIXON, CA 95620
SITE ADDRESS	3909 GAFFERY ROAD VERNALIS, CA
ASSESSORS PARCEL NUMBER	SAN JOAQUIN COUNTY: 265-010-21 (10.82 ACRES) STANISLAUS COUNTY: 016-003-010 (112.45 ACRES) 016-016-023 (38.47 ACRES)
TOTAL SITE AREA	161.74 ACRES
EXISTING USE	COMPOST FACILITY
PROPOSED USE	COMPOST FACILITY
WATER SUPPLY	PRIVATE WELL
SEWAGE DISPOSAL	PRIVATE - HOLDING TANK
GENERAL PLAN LAND USE	AGRICULTURE (SAN JOAQUIN COUNTY & STANISLAUS COUNTY)

Source: EBA Engineering, 2016

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Exhibit 3
Site Plan

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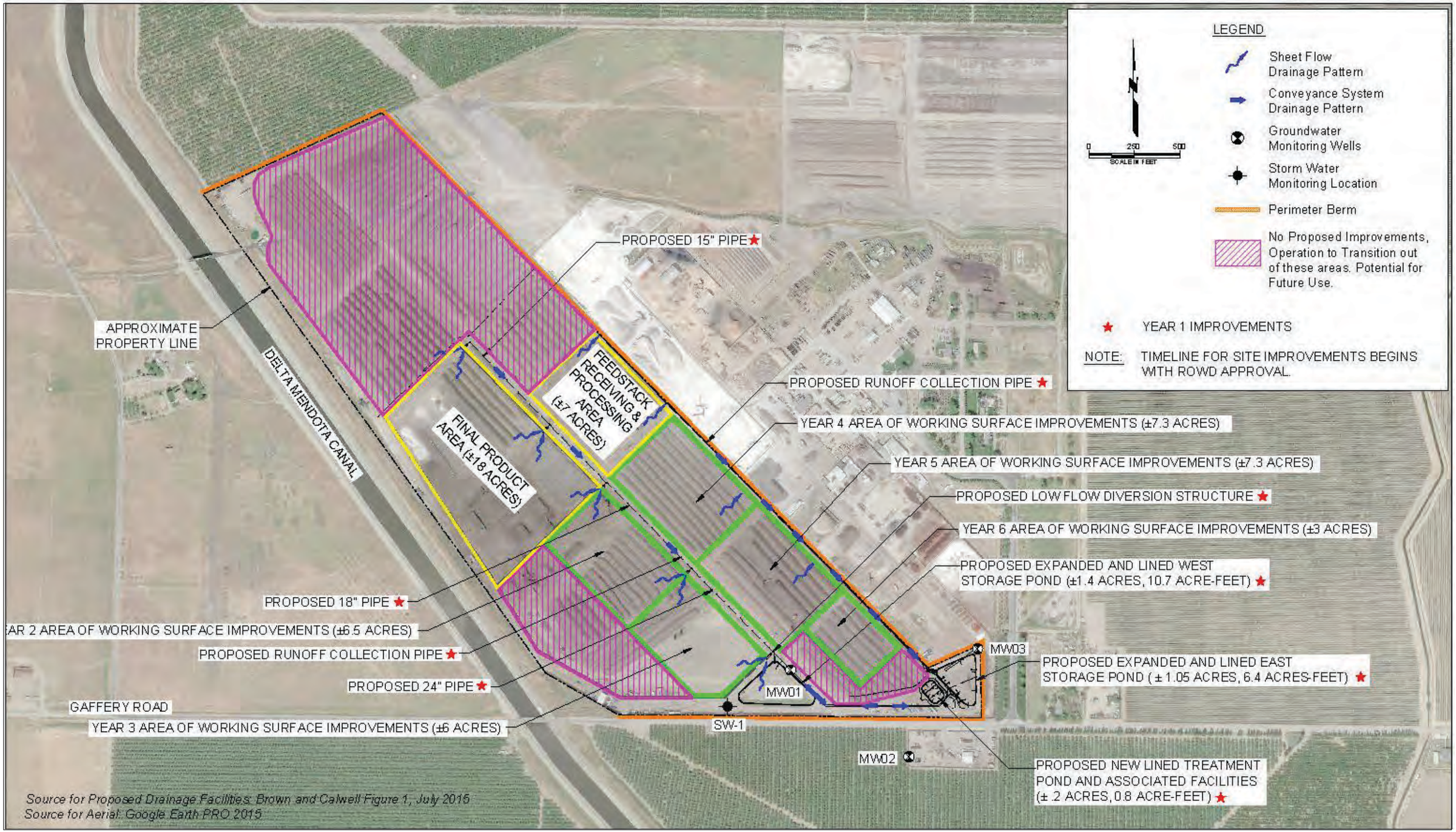

Source: Google, Recology, July 2016

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Exhibit 4
Location and Phasing of Proposed Improvements

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SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

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 and 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/Services Systems	☒	Mandatory Findings of Significance

Environmental Determination

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 measure 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.

Date: _____ Signed: _____

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
1. Aesthetics *Would the project:*				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Environmental Evaluation

The project site is located in a rural setting in the vicinity of the unincorporated community of Vernalis, California. The Delta Mendota Canal lies immediately to the west, orchards to the north, and there is an industrial hauling and agricultural reclamation facility adjacent to the east. The project site and its surrounding area is generally flat, however, much of the interior of the site is occupied by 10-foot-high composting windrows and there is a large earthen berm along the southwestern edge of the site as well as fencing along the southern perimeter. Together with orchards on adjacent properties and agro-industrial activities on the property to the north, these features obstruct the line of sight, and as a result, there is little in the way of vantage points or panoramic views available from on or off-site. The eastern portion of the project site is located primarily in Stanislaus County (150.9 acres) with part of the western portion of the site located within San Joaquin County (10.32 acres). The Stanislaus County General Plan does not identify any scenic resources of significance in the area; however, the San Joaquin County General Plan does identify the Sierra Nevada foothills and the Diablo Range as scenic vistas. Typical views from within the site include the windrows, heavy-duty equipment and office/break room trailers. Outside the project site, views include agricultural orchards and fields. The compost site's southern property boundary has a 22-foot-high net fencing to further block the public view into the site.

The California Department of Transportation (Caltrans) administers the California Scenic Highway Program. The goal of the program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. According to the Caltrans Scenic Highway Mapping System, Interstate 5/Interstate 580, located approximately 0.88 mile

southwest of the project site, is an officially designated State Scenic Highway.[1] The project site is not clearly visible from the freeway.

Given the rural context, light and glare in the surrounding area is minimal. Existing sources include lighting near the entry and exits points to the site as well as light on the administrative office and equipment wash buildings. Additionally, there is lighting on the adjacent industrial hauling and agricultural reclamation facility as well as on rural residences in the area. During the daytime, car windshields in the parking area on-site may reflect sunlight and cause glare. There are no restrictions on nighttime lighting within either County's Zoning Codes.

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Less than significant impact. As described above, there are no established scenic corridors or gateways in the vicinity of the project site except for the Sierra Nevada Foothills and the Diablo Range. Views of these scenic corridors are already obstructed by the current use and layout of the site. The proposed upgrades to the facility would not alter the existing buildings. The proposed site plan would include new landscaping and the creation of a more corporate and cohesive character of the site, such as more uniform fencing. As such, the project would not result in adverse effects on scenic vistas and impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?

Less than significant impact. As stated above, the nearest state scenic highways are I-5 and Interstate 580 (I-580). The project site is approximately 0.88 mile from these highways, which cannot be seen from the site. The project does not propose any damaging of trees, rock outcroppings, or historic buildings. Therefore, the project would have less than significant impacts with respect to scenic resources within a State Scenic Highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than significant impact. The existing visual character of the project vicinity is rural agricultural uses with scattered residential uses. Views of the Sierra Nevada Foothills and the Diablo Range can be seen from relatively flat areas and while driving along paved roads. The area is relatively flat with some small slopes. The existing visual character of the project site is rural, relatively flat land with some small slopes and commercial buildings. There are berms, fencing and compost windrows that obstruct views on- and off-site. The composting activities that currently take place and would continue to take place under the proposed project are consistent with the rural, agricultural nature of the surrounding area. With phased implementation of the ASP system, the area of composting activity would be reduced over time as windrows are removed and the full-scale ASP system is brought online. As described above, landscaping improvements and additional fencing would

[1] State of California. 2011. "Officially Designated State Scenic Highways And Historic Parkways." Website: http://www.dot.ca.gov/hq /LandArch/16_livability/scenic_highways/. Accessed September 21, 2016.

control debris and any other trash that may impact the surrounding land uses, while also improving the existing visual character of the site and providing better screening of composting operations. As such, the project would not degrade the visual character of the site and its surroundings. Impacts would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than significant impact. As stated above, existing lighting on the project site includes lighting on mesh fences and at truck entrances and buildings along Gaffery Road. Light also emanates from nearby residential uses. There are no restrictions within the Stanislaus County Zoning Code on nighttime lighting or substantial glare. There are policies in the Stanislaus County General Plan regarding lighting and glare. The project does not propose new lighting; however, conditions of approval will be added to the project to require all lighting be designed to avoid light spillage onto adjacent properties or creation of glare. Impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2. Agriculture and Forestry 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 Dept. 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:*				
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?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Environmental Evaluation

The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) was established by the State Legislature in 1982 to assess the location, quality, and quantity of agricultural lands and conversion of these lands over time. The FMMP has established five farmland categories:

- Prime Farmland (F) is farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land must have been used for irrigated

agricultural production at some time during the last four years before the mapping date and have the ability to store moisture in soil well.

- Farmland of Statewide Importance (S) is similar to Prime Farmland but contains greater slopes and a lesser ability to store soil moisture.
- Unique Farmland (U) is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climate zones in California. This land must still have been cropped some time during four years prior to the mapping date.
- Farmland of Local Importance (L) is important to the local agricultural economy as determined by each county's board of supervisors and local advisory committee.
- Grazing Land (G) is land on which the existing vegetation is suited to the grazing livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

The proposed project site is made up of three parcels. In the northwestern portion of the site, APN 265-010-21 is classified by the FMMP as semi-agricultural and rural commercial land. In the central portion of the project site, APN 016-003-010 is classified by the FMMP as Urban and Built-Up Land, and Vacant or Disturbed Land. Located at the southern portion of the project site, APN 016-016-023 is classified by the FMMP as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. APN 016-016-023 and APN 016-003-010 are located in Stanislaus County and have a land use designation of agriculture, and are zoned as General AG (Agriculture) 40 Acre, according to the Stanislaus County Code Chapter 21.20 General Agriculture District (A-2).[2] Chapter 21.12 of the Stanislaus County Code defines the proposed project's composting operations as "agricultural processing," meaning "the act of changing an agricultural product . . . from its natural state to a different form."[3] APN 265-010-21 is located in San Joaquin County, and has a land use designation of agriculture, and is zoned as AG (General Agriculture) 40, which is intended for the continuation of commercial agriculture enterprises.[4] The existing and proposed composting operations of the facility are consistent with these designations.

The Williamson Act, codified in 1965 as the California Land Conservation Act, allows local governments to enter into contracts with private landowners, offering tax incentives in exchange for an agreement that the land will remain solely dedicated to agricultural or related open space use for a period of 10 years. APN 016-003-010 of the project site is currently under Williamson Act No. 1975-1888.[5] The portion of the contract that includes APN 016-003-010 was non-renewed and will

[2] Stanislaus County Code Title 21 Zoning, Chapter 21.20 General Agriculture District (A-2), 21.20.020 Permitted Uses. Website: http://qcode.us/codes/stanislauscounty/view.php?topic=21-21_20-21_20_020&frames=off. Accessed September 22, 2016

[3] Stanislaus County Code Title 21 Zoning, Chapter 21.12 Definitions. Website: http://qcode.us/codes/stanislauscounty /view.php?topic=21-21_12-21_12_025&frames=on. Accessed September 22, 2016.

[4] San Joaquin County Development Community Development Department – Zones in San Joaquin County. Website : https://www.sjgov.org/commdev/cgi-bin/cdyn.exe?grp=neighpresv&htm=zonedef. Accessed September 22, 2016.

[5] Stanislaus County William Son Act Map. Website: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Stanislaus_north_10_11_WA.pdf. Accessed September 2, 2016.

be completely out of contract as of December 31, 2016.[6] APN 265-010-21 and APN 016-016-023 are not subject to a Williamson Act Contract.

There is no forest land as defined in Public Resources Code section 12220(g), timberland as defined by Public Resources Code section 4526, or property zoned for Timberland Production as defined by Government Code section 51104(g) on the site or in its vicinity.

Would the project:

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?

Less than significant impact. As described above, APN 265-010-21 is classified by the FMMP as semi-agricultural and rural commercial land. In the central portion of the project site, APN 016-003-010 is classified by the FMMP as Urban and Built-Up Land, and Vacant or Disturbed Land. However, APN 016-016-023, located in the southeastern portion of the project site has a Prime Farmland designation and is currently used as an orchard. Both Stanislaus County's Code and San Joaquin's Development Code note that the project's composting facility use would be acceptable uses for agricultural lands.

The project would maintain its existing land use and zoning designations, as both counties define the composting facility and its operations as an agricultural use. As such, with approval of the project, the proposed composting facility plans will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Impacts will be less than significant.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Less than significant impact. APN 016-003-010 of the proposed project is currently under a Williamson Act Contract within Stanislaus County; however, the contract has been non-renewed and the parcel will be out of contract as of December 31, 2016. Since both counties define the proposed project uses as agricultural uses consistent with the land use and zoning designations under each county's code, the project would not conflict with existing zoning for agricultural use, or a Williamson Act Contract. Therefore, impacts with existing zoning for agricultural use, or a Williamson Act Contract would be less than significant.

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))?

No impact. CEQA requires the evaluation of forest and timber resources where those resources are present; however, the project site is located in an agricultural area of Stanislaus County and there is no forest land as defined in Public Resources Code section 12220(g), timberland as defined by Public Resources Code section 4526, or property zoned for Timberland Production as defined by

[6] Kristin Doud, Stanislaus County Planning and Community Development. Personal communication: email. October 20, 2016.

Government Code section 51104(g) on the site or in its vicinity. The project site is located in an agricultural area of San Joaquin and Stanislaus Counties and there is no forest or timberland in the vicinity. There would be no associated impact.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. CEQA requires the evaluation of forest and timber resources where those resources are present; however, the project site is located in an agricultural area of Stanislaus County and there is no forest land as defined in Public Resources Code section 12220(g), timberland as defined by Public Resources Code section 4526, or property zoned for Timberland Production as defined by Government Code section 51104(g) on the site or in its vicinity.

As described above, there is no forest land in the vicinity of the project site, which is located in agricultural areas of San Joaquin and Stanislaus Counties. The project would therefore not induce the conversion of forest land to non-forest use. There would be no associated impacts.

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?

Less than significant impact. As described in Section 1.4.2 above, the project would involve improvements to better contain litter within the boundaries of the site and reduce migration of airborne debris off-site. These improvements include the relocation of the receiving and processing area to a location at the center of the site; expansion of the existing 22-foot litter and dust fence; installation of dual 22-foot-high fences with cantilevered tops near the entry/exit points to the site; and implementation of a litter control plan. These improvements would reduce the potential for airborne debris to enter neighboring irrigation canals and subsequently block pumps and grates. As such, the proposed improvements would not adversely affect neighboring agricultural operations. Cumulatively, the proposed project will have less than a significant effect to the existing environment, as the project's uses are consistent with existing surrounding agricultural land uses. The project would not convert adjacent agricultural land, or otherwise cause the conversion of agricultural land, as there is another semi-industrial facility northeast of the area. The project would also not convert forest land to non-forest lands, as no forest lands are present within the vicinity. Impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
3. 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:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☒	☐	☐

Environmental Evaluation

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. Air quality modeling data that was used in the analysis below is included in Appendix A of this document.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact. The United States Environmental Protection Agency (EPA) is responsible for identifying nonattainment and attainment areas for each criteria pollutant within the San Joaquin Valley Air Basin. The Air Basin is designated nonattainment for state standards for 1-hour and 8-hour ozone, 24-hour small particulate matter (PM_{10}), annual PM_{10}, and annual respirable particulate matter ($PM_{2.5}$).

Areas designated non-attainment must develop air quality plans and regulations to achieve standards by specified dates, depending on the severity of the exceedances. The San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted several air quality plans and programs to address regional air quality standards. The most recent attainment plans for the SJVAPCD are the

2007 8-hour Ozone Attainment Plan and the 2012 $PM_{2.5}$ Plan for the 2006 $PM_{2.5}$ standard. The Air Basin is designated as an extreme ozone nonattainment area for the EPA's 2008 8-hour ozone standard of 75 ppb. The plan to address this standard is expected to be due to the EPA in 2016.

The plans include control measures for each source of emissions. The plans rely on control measures adopted by the State for sources such as motor vehicle tail pipe emissions and consumer products. The SJVAPCD regulates industrial and commercial sources of emissions through permitting and prohibitory rules. The SJVAPCD also regulates indirect sources that attract motor vehicles. In addition, the SJVAPCD works with the regional transportation planning agencies in the San Joaquin Valley on transportation control measures to reduce trips and vehicle miles traveled (VMT).

A project would be judged to conflict with or obstruct implementation of the applicable air quality plan if it would result in substantial new regional emissions not foreseen in the air quality planning process. The SJVAPCD has adopted thresholds of significance for regional criteria pollutant emissions in its Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) that if exceeded could conflict with the air quality plan. The analysis comparing project emissions to SJVAPCD thresholds is provided under impact c). The GAMAQI does not provide specific guidance on analyzing conformity with the Air Quality Plan (AQP). Therefore, this document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District for Regional and Local Air Pollutants (see Impact c).
2. Will the project conform to the assumptions in the AQPs?
3. Will the project comply with applicable control measures in the AQPs?

The project is expected to result in reductions in volatile organic compounds (VOC) that participate in photochemical reactions that produce ground level ozone impacts. No additional employees, or truck or diesel equipment use is anticipated with the project compared to existing conditions. There are no new employee trips that would trigger the need to implement transportation control measures to address VMT. Therefore, the project would conform to the assumptions in the AQPs.

The project would be required to comply with the following SJVAPCD rules and regulations that implement AQP control measures.

Rule 4102—Nuisance. The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials. Although this rule does not include specific mechanisms to reduce air contaminant or nuisance-generating emissions, all projects within the SJVAPCD jurisdiction are required to comply with this rule. It should be noted that Rule 4102 also includes odor emissions, which are evaluated further in Impact e) below.

Rule 4566—Organic Material Composting Operations. The purpose of this rule is to limit emissions of volatile organic compounds (VOC) from composting operations. The existing and proposed operations are required to implement all applicable administrative (e.g., facility emission mitigation plan), operational (e.g., covering requirements, turning frequency, material movement requirements), and water systems (e.g., independent or integrated watering system to water windrow prior to turning) requirements for stockpiles and active composting operations.

Regulation VIII—Fugitive PM_{10} Prohibitions. Rules 8011-8081 are designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules. The project would implement all applicable requirements of Regulation VIII, which is added as Mitigation Measure AIR-1 to ensure legal enforceability during construction activities.

Compliance with the above listed regulations ensure the project conforms to the applicable control measures in the AQP. However, because Regulation VIII is not included in the project description and is not part of the project design, the application of fugitive dust control measures from Regulation VIII is recommended as mitigation during construction to ensure compliance with SJVAPCD Rule VIII. Without implementation of Regulation VIII, this impact would be potentially significant.

MM AIR-1 Fugitive Dust Control

The owner/operator shall sufficiently implement at least one of the control measures listed below to limit visible dust emissions (VDE) to 20 percent opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011. The opacity limit may be achieved through implementation of any combination of the following control measures to the extent needed:

On-Site Transporting of Bulk Materials:

- Limit vehicular speed while traveling on the work site sufficient to limit VDE to 20 percent opacity; or
- Load all haul trucks such that the freeboard (the amount of material transported that rises above the walls of the truck bed) is not less than six (6) inches when material is transported across any paved public access road; or
- Apply water to the top of the load sufficient to limit VDE to 20 percent opacity; or
- Cover haul trucks with a tarp or other suitable cover.

Off-Site Transporting of Bulk Materials:

- Clean the interior of the cargo compartment or cover the cargo compartment before the empty truck leaves the site; and
- Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate; and

- Load all haul trucks such that the freeboard is not less than six (6) inches when material is transported on any paved public access road and apply water to the top of the load sufficient to limit VDE to 20 percent opacity; or cover haul trucks with a tarp or other suitable closure.

Unpaved Road Segments:

- On each day that 75 or more vehicle daily trips (VDT), or 25 or more VDT with 3 or more axles, will occur on an unpaved road segment, the owner/operator shall limit VDE to 20 percent opacity and comply with the requirements of a stabilized unpaved road by application and/or re-application/maintenance of at least one of the following control measures, or shall implement an approved Fugitive PM_{10} Management Plan:
  - Watering;
  - Uniform layer of washed gravel;
  - Chemical/organic dust suppressants;
  - Vegetative materials;
  - Paving;
  - Roadmix;
  - Any other method(s) that can be demonstrated to the satisfaction of the APCO that effectively limits VDE to 20 percent opacity and meets the conditions of a stabilized unpaved road.

Unpaved Vehicle/Equipment Parking and Traffic Areas:

The control measures listed below shall be implemented on unpaved surface areas dedicated to any vehicle and equipment parking and traffic activity in order to limit VDE to 20 percent opacity and comply with the requirements of a stabilized unpaved road as specified in Rule 8011. If vehicle activity remains exclusively within an unpaved vehicle/equipment traffic area, Section 5.3 may be implemented to limit VDE to 20 percent opacity.

- Where 50 or more annual average daily trips (AADT) will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall limit VDE to 20 percent opacity and comply with the requirements of a stabilized unpaved road by the application and/or reapplication/maintenance of at least one of the following control measures:
  - Watering;
  - Uniform layer of washed gravel;
  - Chemical/organic dust suppressants;
  - Vegetative materials;
  - Paving;
  - Roadmix.

Following implementation of MM AIR-1, this impact would be reduced to a less-than-significant level.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than significant impact with mitigation incorporated. SJVAPCD has developed regional mass emission thresholds of significance for construction and operational activities. These thresholds are considered the allowable amount of annual emissions that each project could generate without violating or contributing substantially to an existing or projected air quality violation of ambient air quality standards. Therefore, a project that would generate annual construction or operational emissions that do not exceed SJVAPCD thresholds of significance would be considered not to violate and/or contribute substantially to existing or projected air quality violations.

As shown below in Table 1, the proposed project's construction emissions would not exceed any of SJVAPCD thresholds of significance. While high winds in the vicinity of the facility or the operation of vehicles and equipment on unpaved roadways interior to the site could generate fugitive dust, the project involves operational procedures such as watering of compost windrows and improvements such as the installation of dual fencing and internal landscaping that would control fugitive dust. In addition, as discussed further in Impact c) below, the proposed project would not result in a net increase in long-term operational emissions. Therefore, the proposed project's construction and operational emissions would not exceed SJVAPCD thresholds of significance. In addition, in order to provide a legally enforceable mechanism (i.e., CEQA mitigation) for the implementation of Regulation VIII, MM AIR-1 has been added to reduce construction and operational fugitive dust emissions. With implementation of MM AIR-1, the proposed project's construction and operational emissions would not violate or contribute substantially to any existing or projected air quality standard. This impact would be less than significant with mitigation incorporated.

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)?

Less than significant impact with mitigation incorporated. Potential localized criteria pollutant impacts would consist of exceedances of state or federal standards for $PM_{2.5}$, $PM_{10,}$ or carbon monoxide (CO). Particulate matter emissions (both PM_{10} and $PM_{2.5}$) are of concern during project construction because of the potential to emit fugitive dust during earth-disturbing activities and project operations. CO emissions are of concern during project operation because operational CO hotspots are related to increases in on-road vehicle congestion.

Non-attainment pollutants of concern include ozone, PM_{10} and $PM_{2.5}$. In developing thresholds of significance for air pollutants, the SJVAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified thresholds of significance, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. The analysis considers construction and operation period impacts separately, as described below.

The District's annual emission significance thresholds used for the project define the substantial contribution for both operational and construction emissions as follows:

- 100 tons per year CO
- 10 tons per year NO_x
- 10 tons per year ROG
- 27 tons per year SO_2
- 15 tons per year PM_{10}
- 15 tons per year $PM_{2.5}$

The project does not contain sources that would produce substantial quantities of SO_2 emissions during construction and operation. Modeling conducted for the project show that SO_2 emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in Appendix A. No further analysis of SO_2 is required.

Construction Emissions

Construction emissions associated with the project are shown for the years 2010 and 2016 to 2021 in Table 1. The emissions shown for 2010 include all construction improvements made after the issuance of the 2008 Conditional Use Permit and prior to 2016. As shown in Table 1, the emissions are below the significance thresholds in each construction year. Therefore, the emissions are less than significant on a project basis.

Table 1: Construction Air Pollutant Emissions

Year	Emissions (tons per year)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
2010	0.04	0.34	0.19	0.02	0.02
2016	0.30	3.12	2.04	0.39	0.27
2017	0.13	1.31	0.97	0.17	0.11
2018	0.10	1.02	0.81	0.15	0.09
2019	0.10	0.99	0.86	0.17	0.10
2020	0.09	0.89	0.83	0.16	0.10
2021	0.04	0.35	0.36	0.07	0.04
Significance threshold (tons/year)	10	10	100	15	15
Exceed threshold—significant impact?	No	No	No	No	No

Notes:
PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
ROG = reactive organic gases NO_x = nitrogen oxides PM_{10} and $PM_{2.5}$ = particulate matter
Source: CalEEMod output (Appendix A).

Pursuant to SJVAPCD's Guide to Assessing and Mitigating Air Quality Impacts, a project that is determined to be less than significant on a project-level would not generate a cumulatively

considerable contribution to regional air quality. Thus, the proposed project's construction emissions would not be considered a cumulatively considerable contribution to regional air quality. This cumulative impact would be less than significant.

Operational Emissions

Operational emissions occur over the lifetime of the project. Emissions from composting operations are from several sources. These include motor vehicle trips related to transport of raw materials to be composted and export of finished compost to an end user, operation of offroad equipment to handle the compost material on-site, and motor vehicle trips from employee vehicles. The project would result in no new vehicle trips or increase in volume of material handled on the site. Therefore, it is not anticipated the proposed project would result in a net increase of operational emissions from existing conditions. Nevertheless, because measures required under SJVAPCD Regulation VIII regarding Fugitive PM10 Prohibitions are not included in the project description or project design, this analysis includes compliance with Regulation VIII as MM AIR-1 to ensure all applicable measures are legally enforceable. Without implementation of MM AIR-1, this impact would be potentially significant.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. The District considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The following analysis addresses the localized impacts of criteria pollutants and toxic air contaminants.

Localized Criteria Pollutant Analysis

Emissions occurring at or near the project site have the potential to create a localized impact, also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard.

The SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis. The criteria pollutants of concern for localized impact in the San Joaquin Valley Air Basin are PM_{10}, $PM_{2.5}$, NO_2, and CO.

An analysis of maximum daily emissions during construction and operation was conducted to determine if emissions would exceed the 100 pounds per day screening threshold for any pollutant of concern. No increase in operational emissions are anticipated, so no operational analysis was

required. The project would include the construction of new facilities on the project site that would result in construction emissions. Emissions during construction were compared to SJVAPCD localized screening thresholds. The results of the screening analysis are provided in Table 2. As shown in Table 2, the daily emissions are below the significance thresholds in each construction year.

Table 2: Maximum Daily Air Pollutant Emissions

Year	Emissions (pounds per day)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
2010	3.6	31.2	18.0	1.9	1.7
2016	3.9	40.8	26.7	5.1	3.5
2017	2.4	25.9	18.6	4.2	2.7
2018	3.1	32.7	25.3	4.7	3.0
2019	2.0	20.0	16.6	3.8	2.4
2020	1.8	18.0	15.8	3.7	2.3
2021	1.7	16.0	14.9	3.6	2.2
Maximum Daily Emissions	**3.9**	**40.8**	**26.7**	**5.1**	**3.5**
Significance threshold (tons/year)	100	100	100	100	100
Exceed threshold—significant impact?	No	No	No	No	No

Notes:
NO_x = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
N/A—Not applicable
Summer and Winter emissions are essentially the same.
Source: CalEEMod output (Appendix A).

Carbon Monoxide Hot Spot Analysis

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of roadways in the project vicinity. The project will not result in an increase in truck or vehicle trips or increased operational emissions; therefore, no CO hotspot analysis is required.

e) Create objectionable odors affecting a substantial number of people?

Less than significant impact with mitigation incorporated. Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. Composting facilities are land uses that the SJVAPCD identifies as potential odor sources that require additional assessment when located within 1 mile of sensitive receptors, such as residences, hospitals, day-care centers, and schools. These land uses warrant the closest scrutiny, but

consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Recent changes in state law and the proliferation of commercial organic waste recycling programs are spurring an increase in the percentage of food and commercial organic waste contained in incoming feedstock. The existing composting facility has experienced odor issues in the past, and absent the use of operational practices such as the timely processing of incoming materials; proper blending, turning, and watering of windrows; and use of the biocover, odor could potentially be an issue in the future. However, the project includes operational changes that are intended to reduce odor impacts, including a new wastewater system and the installation of aerated static pile (ASP) technology for the composting operation. According to CalRecycle Research on Compost Emissions, use of ASP technologies can reduce VOC emissions by 98.8 percent over a 22 day period compared to a baseline windrow. Additionally, a six-inch biocover is applied to the peak of the active composting windrows during the first 15 days of composting to reduce odors and VOCs in accordance with SJVAPCD Rule 4566. Wastewater will be treated on-site in an aeration pond and stored in the storage ponds until reused as process water for composting, which will reduce potential odors.

The project applicant recently prepared an Odor Management Plan (OMP) for the facility. The OMP states that while total elimination of odor from composting systems is not possible, the OMP and the measures outlined herein are targeted toward the systematic reduction of on-site sources of malodor and the minimization of potential off-site nuisance odor impacts. The OMP includes an odor monitoring protocol to follow in the event of the receipt of odor complaints. The OMP describes the design considerations that reduce potential odor impacts. These include providing adequate aeration to keep the composting process in an aerobic state, providing sufficient moisture to support the biologic activity, and proper storage and processing of the feedstock material.

While the proposed ASP technology and aeration pond described above will address off-site nuisance odor impacts with future implementation, there is a potential for odor impacts to occur in the interim if best practices for odor control are not implemented. Therefore, MMs AIR-2 and AIR-3 described below are recommended to ensure that existing off-site nuisance odor impacts are reduced to a less than significant level pending the implementation of project improvement plans. Additionally, while phased implementation of the ASP system is envisioned as part of the project, in order to ensure timely compliance with State Water Resources Control Board Water Quality Order 2015-0121-DWQ, MM AIR-4, described below, is recommended.

MM AIR-2 Odor Complaint Response

- When the site receives an odor complaint, the Odor Management Plan shall be implemented. The OMP requires use of a third party answering service. When complaints are received by the third party answering service, an email shall be sent to both BVON personnel and Stanislaus County alerting them of the incident. Complaints received by BVON will be forwarded to the Lead Enforcement Agency (LEA) within 24 hours of receipt or by close of business of the first business day after a weekend complaint.

- Upon notification of a complaint by the third-party service, or upon direct receipt of a complaint by the Facility, a Facility investigator will use an olfactometer device to determine if the odor is detectable both at the complaint location and on-site at the Facility border in the area of the prevailing wind direction.
- If BVON is found to be the source of acute malodorous conditions, then the site will work to eliminate the source of the malodor and an Odor Complaint Investigation Report (OCIR) will be submitted to the LEA within 48 hours of receiving the complaint or by close of business of the first business day after a weekend complaint. The OCIR shall detail the complaint, the investigation carried out, the prevailing weather conditions at the time of complaint and investigation and the activities occurring on-site at the time of complaint and investigation.

MM AIR-3 Facility Improvement and Process Adjustments to Reduce Odors

Facility improvements and adjustments to process controls used to eliminate the source of malodorous conditions shall include, but are not limited to, the following:

- Processing all incoming compostable feedstock materials into active windrows within 72 hours
- Adequately blending feedstocks and/or adjusting food material to green material ratios to achieve desired carbon to nitrogen levels. Windrows typically have up to a one-to-one ration of food material, not comprising more than 50% of food content, to green material by weight;
- Monitoring feedstock porosity;
- Evaluating and altering moisture management operations, which shall include adding sufficient water to achieve desired moisture;
- Temperature balancing through regulation of airflow within the windrows;
- Adjusting pile sizes;
- Improving site drainage.

Odor controls on the compost pad include:

- Collection and incorporation of organics from aisles between windrows;
- Use of microbial inoculants or lime on pad surfaces and water collection systems;
- Incorporating high organic content liquids into the composting process, both as an inoculant and for moisture control.

MM AIR-4 Facility-wide ASP System Implementation

State Water Resources Control Board Water Quality Order 2015-0121-DWQ (included in Appendix A) establishes a timeline for compliance with the Compost General Order, as well as monitoring and reporting procedures. The project shall comply with the provisions of the order, as detailed in the Notice of Applicability for coverage under the General Order issued by the Central Valley RWQCB on January 26, 2016.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Biological Resources *Would the project:*				
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?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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 wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Evaluation

This section evaluates potential effects on biological resources that may result from project implementation. Descriptions and analysis in this section are based results of the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB), the United States Fish and Wildlife Service (USFWS) database searches (as cited in Appendix B), the Biological Resources Evaluation (BRE), General Biological Survey that was completed for the proposed project on September 9, 2016 (Appendix B), and previous literature completed for the Recology site.

Would the project:

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?

Less than significant impact. Special-status plant and wildlife species typically occur in undeveloped areas. Although less likely, it is also possible for them to occur within developed areas. The project site, in part, has characteristics of land that has been developed or disturbed, including disturbed soils and the presence of invasive and non-native plant species within the expansion area. The project site is situated within an agricultural landscape and has an extensive history of agricultural use. Special status species recorded within a 5-mile radius can be observed in Exhibit 5.

While three special-status plant and eleven special-status wildlife species have been recorded within a 5-mile radius of the site, in general it is not likely that they would use or inhabit the site because of the disturbed nature of the site and absence of suitable habitat.

Special-Status Plant Species

A plant's potential to occur on the project site's expansion area was based on the presence of suitable habitats, soil types, and occurrences recorded or known in the project region by the USFWS, CNPS inventory, CNDDB, and on observations made during the September 9, 2016 site survey. Based on the database searches and field observations, it has been determined that no suitable habitat is present on-site for special status plant species. No impacts to special status plant species are expected to occur resulting from project implementation.

The project site supports a single habitat type consisting of ruderal non-native grassland, the result of long-term agricultural disturbance. Non-native grassland, a prevalent community throughout California, is generally characterized by a dense to sparse cover of non-native, annual grasses often associated with numerous weedy species as well as some native annual forbs (wildflowers). Cover on-site was relatively dense with composting windrows occupying a large portion of the surface area and scattered areas of exposed sandy soils and dirt roads transecting the site. Dominant plant species observed during the survey include but not limited to Russian thistle (*Salsola tragus),* Prickly lettuce (*Lactuca serriola),* Jimsonweed *(Datura wrightii)*, ripgut grass (*Bromus diandrus)* and brome species (*Bromus* spp.).

Special-Status Wildlife Species Potentially Occurring within the Project Site

Based upon the types of habitat that each special-status wildlife species occupies, and on observations made during the September 9, 2016 site survey, each wildlife species was evaluated for its potential to occur within the project site. Overall, it is unlikely that special-status wildlife species will inhabit or occur within the project site. None of these species or any special status species were found during the survey on September 9, 2016 or in previous surveys completed for this project in 2012, and 2013 by ICF international and Monk & Associates, Inc. (M&A). Table 4 provides a description of the special status wildlife species with the potential to occur on-site.

Table 3: Special Status Species

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Birds					
Athene cunicularia Burrowing owl	— MBTA	SSC FGC	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	**Potential to Occur:** Marginal habitat is present within the project site. Recorded occurrences are within 5 miles of the project site.	Yes
Buteo swainsoni Swainson's hawk	— MBTA	ST FGC	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Potential to Occur:** Marginal foraging habitat is present within the project area. Recorded occurrences are within 5 miles of the project area.	Yes
Eremophila alpestris actia California horned lark	— MBTA	—	Occurs in coastal regions, primarily from Sonoma County to San Diego County, as well as the main part of the San Joaquin Valley and eastward to the foothills. Found in short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	**Potential to Occur:** suitable nesting habitat is present within the project area. Recorded occurrences are within 5 miles of the project area.	Yes
Mammals					
Vulpes macrotis mutica San Joaquin kit fox	FE	ST	Inhabits annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base	**Potential to Occur:** Marginal habitat is present within the project area. Recorded occurrences are within 5 miles of the project area.	Yes

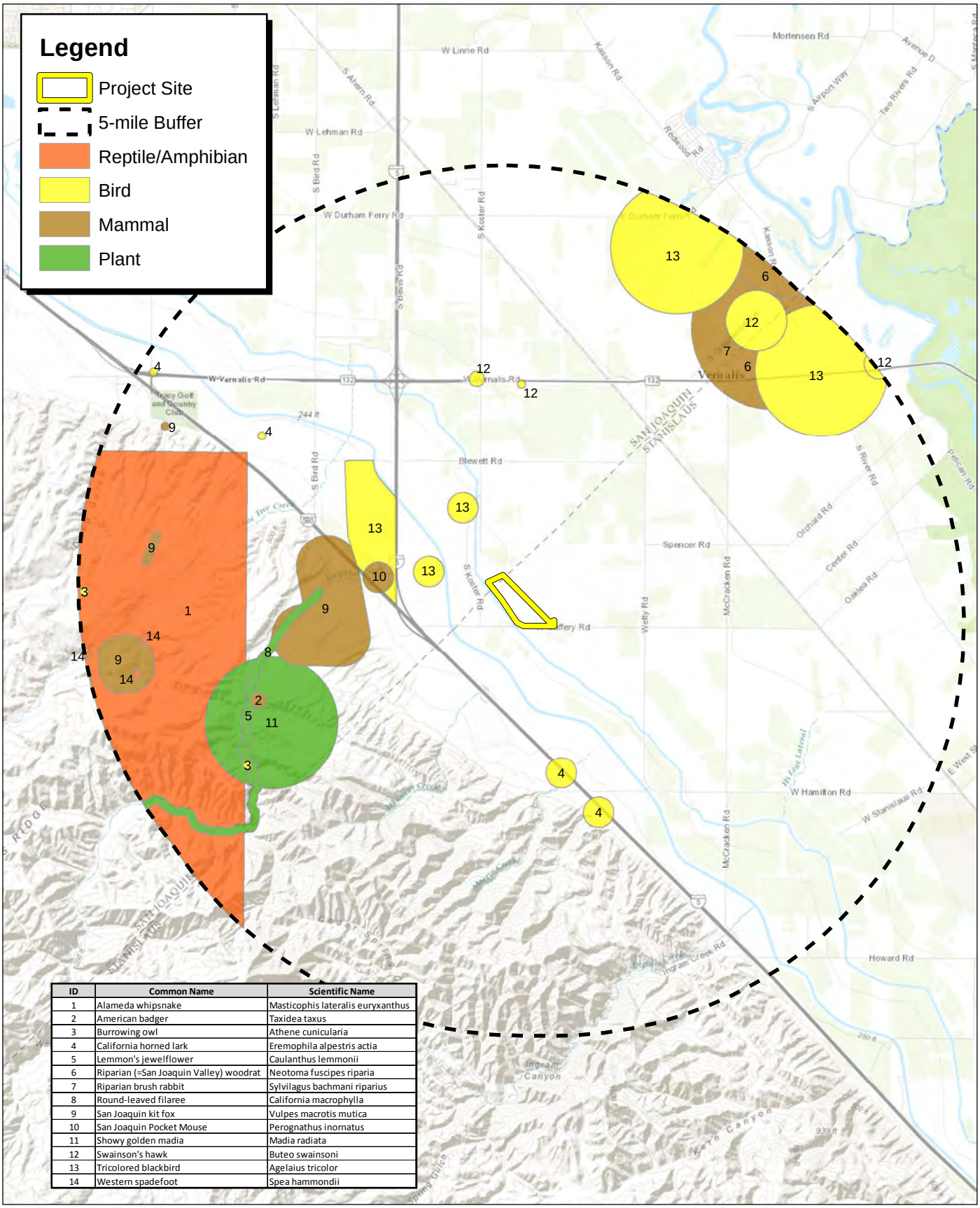
Table 3 (cont.): Special Status Species

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale	Included in Impact Analysis
Taxidea taxus American badger	—	SSC	Found in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Requires sufficient food sources (rodents), friable soils, and open, uncultivated ground. Digs large burrows.	**Potential to Occur:** Marginal habitat is present within the project area. Recorded occurrences are within 5 miles of the project area.	Yes

Code Designations

[1] Federal Status: 2015 USFWS Listing		[2] State Status: 2015 CDFW Listing	
ESU	= Evolutionary Significant Unit is a distinctive population.	**SE**	= Listed as endangered under the CESA.
FE	= Listed as endangered under the FESA.	**ST**	= Listed as threatened under the CESA.
FT	= Listed as threatened under the FESA.	**SSC**	= Species of Special Concern as identified by the CDFW.
FC	= Candidate for listing (threatened or endangered) under FESA.	**FP**	= Listed as fully protected under FGC.
FD	= Delisted in accordance with the FESA.	**CFG**	= FGC =protected by FGC 3503.5
FPD	= Federally Proposed to be Delisted.	**CR**	= Rare in California.
MBTA	= protected by the Migratory Bird Treaty Act	—	= Not state listed
—	= Not federally listed		

[3] **Habitat description**: Habitat description adapted from CNDDB (CDFW 2015a).



ID	Common Name	Scientific Name
1	Alameda whipsnake	Masticophis lateralis euryxanthus
2	American badger	Taxidea taxus
3	Burrowing owl	Athene cunicularia
4	California horned lark	Eremophila alpestris actia
5	Lemmon's jewelflower	Caulanthus lemmonii
6	Riparian (=San Joaquin Valley) woodrat	Neotoma fuscipes riparia
7	Riparian brush rabbit	Sylvilagus bachmani riparius
8	Round-leaved filaree	California macrophylla
9	San Joaquin kit fox	Vulpes macrotis mutica
10	San Joaquin Pocket Mouse	Perognathus inornatus
11	Showy golden madia	Madia radiata
12	Swainson's hawk	Buteo swainsoni
13	Tricolored blackbird	Agelaius tricolor
14	Western spadefoot	Spea hammondii

Source: CNDDB, 09/2016

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1.5 0.75 0 1.5 Miles

Exhibit 5
CNDDB - Recorded Occurrences 5 mile Radius

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b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than significant impact. No riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations by CDFW or USFWS are within the site, and there are no activities proposed that could impact the existing drainage feature or the Delta Mendota Canal, both of which would maintain a 25-foot setback area.

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?

No impact. The field survey conducted on September 09, 2016 included an assessment of the presence or absence of waters of the U.S. or State on the project site, which may be potentially subject to the jurisdiction of CDFW, USACE, and/or the Regional Water Quality Control Board (RWQCB). The project site's existing stormwater ponds and Delta Mendota Canal bordering the site were observed during the survey. The Delta Mendota Canal currently has an existing setback area of 25-feet. No substantial adverse effects on federally protected wetlands as defined by Section 404 of the Clean Water Act are expected to occur to as result of project implementation and no other federal or state jurisdictional wetlands are present on-site.

Furthermore, the Project plans would adhere to the County Codes and the Design, Construction, and Operation requirements from the SWRCB, including wastewater infrastructure improvements to ensure compliance with General State Water Discharge Requirements for Composting Operations, adopted by the CSWRCB 2015.

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 wildlife nursery sites?

Less than significant impact. The Project site contains developed and disturbed areas, and is within an agricultural landscape. As discussed above the project site does not contain suitable habitat for wildlife species to occur, and proposed improvements and reorganization of the projects existing facility would result in less than significant impacts to ay native or migratory species. Furthermore, the project site is not within any designated wildlife corridors.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No impact. The proposed project will not conflict with any local policies or ordinances protecting biological resources. There are no trees on-site. Furthermore, the project meets and would not conflict with Stanislaus County General Plan Conservation/Open Space Element policies established to protect biological resources, including Policy Three, which seeks to protect areas of sensitive wildlife habitat and plant life; Policy Six, which sees to preserve natural vegetation; or Policy Twenty-Nine, which seeks to protect the habitats of rare and endangered fish and wildlife species. Therefore, impacts would be less than significant.

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?

No impact. A portion of the project sites undeveloped non-native grass habitat is within designated agricultural zoned lands of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan Area. However, project implementation is not proposed for this area, and, therefore, the project would result in no impact related to conservation plans.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
5. Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Environmental Evaluation

Setting

This section describes the existing cultural resources setting and potential effects from project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based on information provided by the California Native American Heritage Commission (NAHC), Northwest Information Center (NWIC), National Register of Historic Places (NR), CR, California Historical Landmarks list, California Points of Historical Interest list, California State Historic Resources Inventory, the UCMP Paleontological Database, and a pedestrian survey of the site conducted by FirstCarbon Solutions (FCS). The record search results, NAHC correspondence, historic and paleontological reports and pedestrian survey photographs are provided in Appendix C.

Central California Information Center

In order to determine the presence or absence of cultural and historical resources within the proposed project area, staff at the Central California Information Center (CCIC), located at California State University Stanislaus, conducted a records search for the project site and a 0.5-mile radius surrounding the site on September 6, 2016. The current inventories of the National Register of Historic Places (NR), the California Register of Historic Resources (CR), the California Historical Landmarks list (CHL), the California Points of Historical Interest (CPHI) list, and the California State Historic Resources Inventory (HRI) listings for Stanislaus and San Joaquin Counties were reviewed to determine the existence of previously documented local historical resources.

Results from the CCIC indicate that five resources (P-39-000089/P-50-001904, the Delta-Mendota Canal and P-39-005069/P-50-002044, The Vernalis Naval Auxiliary Air Station, Caltrans bridge numbers 29C-373, 29C-374 and 38C-221) are on file within a 0.5-mile radius of the project area. Of

the five resources, only P-39-005069/P-50-002044, The Vernalis Naval Auxiliary Air Station, lies within the project site. No prehistoric cultural resources have been recorded within a 0.5-mile radius of the project location. In addition, four area-specific survey reports (SJ/ST-00621, SJ/ST-02652, SJ/ST-2753, and SJ/ST-07779) are on file with the NWIC for the 0.5-mile search radius. Of the four previous surveys, only one addresses the southwest corner of the project site, indicating that the site has largely not been surveyed for cultural resources. Confidential CCIC records search results may be found in Appendix C-1.

Native American Heritage Commission (NAHC)

On September 6, 2016, FCS sent a request to the Native American Heritage Commission (NAHC) to review its sacred lands file search and to provide a list of Native American Representatives who may be interested in providing additional information on potential Tribal Cultural Resources (TCR's) within the project area. On September 9, 2016, a response was received from the NAHC indicating that no sacred sites were listed as present in the project area. The letter included a list of two Native American representatives. Letters including a map and project details were sent to both representatives on September 15, 1016. As of this date, no response from either of the Native American representatives has been received. Correspondence with the NAHC and Native American representatives may be found in Appendix C-2.

Pedestrian Cultural Resources Survey

FCS Senior Archaeologist Dana DePietro, PhD surveyed the project area for cultural resources on September 13, 2016. The project site is roughly trapezoidal in shape, and is bound by agricultural land to the north, additional composting and resource reclamation operations to the east, Gaffery Road to the south, and the Delta-Mendota Canal to the west. The project site is fully developed, and consists primarily of windrows (20 feet wide by 600 feet long on average) oriented along a northwest by southeast axis. Mobile sorting and processing facilities are located in the center of the site, and two water retention ponds are located in the south and southeast of the site. Various vehicle staging areas and associated equipment are located at various points, the only permanent structure being the administrative building located in the southwest corner of the site.

The entirety of the project area was found to be covered in a thick layer of imported fill associated with composting operations across the site. The soil is largely composed of medium brown silt interspersed with plastic and other modern refuse. Given that sections of the site contain rows of composting material that completely obscure the ground, the survey focused on transects following the perimeter of the project site, as well as the major thoroughfares that criss-cross it, where the potential to observe native soils is higher.

Survey conditions were documented using digital photographs and field notes. During the survey, FCS Senior Archaeologist Dana DePietro, PhD, examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics). Particular attention was paid to existing trenching and other ground disturbance

associated with the current project. These areas were closely inspected for culturally modified soils or other indicators of potential historic or prehistoric resources.

The project site was found to be highly disturbed, with imported soils and refuse material covering the entire site. No native or uncontaminated soils were observed during the course of the survey. No historic or prehistoric cultural resources or raw materials commonly used in the manufacture of tools (e.g., obsidian, Franciscan chert) were found within the project site, nor were any potentially historic building foundations or features associated with the Vernalis Naval Auxiliary Air Station. Survey photographs may be found in Appendix C-3.

UCMP Paleontological Records Search

On September 11, 2016, consulting paleontologist Kenneth Finger, PhD, performed a records search on the University of California Museum of Paleontology (UCMP) database for the Recology BVON project. The project lies within the geologic map of Dibblee (2007), which indicates that the search area lies entirely within an extensive deposit of young alluvium (Qa). The older alluvium (Qoa), Pliocene nonmarine deposits, and Cretaceous Moreno Formation, all of which are mapped southwest of the project site are units with the potential of yielding significant paleontological resources, and they most likely extend northeast in the subsurface below the younger alluvium at the project site.

Dr. Finger performed a records search of the University of California Museum of Paleontology database on September 10, 2016. Of the 126 vertebrate fossil localities listed, 22 of are in late Pleistocene deposits that yielded elements of the Rancholabrean fauna. None of these localities are close to or within the half-mile buffer zones (dashed circles on map) for the project sites. A copy of Dr. Finger's report may be found in Appendix C-4.

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less than significant impact with mitigation incorporated. The results of the NWIC records search show that five historic resources lie within 0.5 mile of the project site, however only one, P-39-005069/P-50-002044, The Vernalis Naval Auxiliary Air Station, lies within the project site. According to the Department of Parks and Recreation Primary Form (DPR) included in Appendix C-5, the Navy purchased 700 acres, including the project area in 1942, to build a base to support two multi-engine patrol squadrons. The base was commissioned as Naval Auxiliary Air Facility Vernalis in 1943. A 7,000-foot-long northwest-southeast oriented runway along with a 4000-foot crosswind runway oriented north-south was constructed within the boundaries of the current project site. All buildings and structures associated with the base were located to the northeast of the site project site, along the northeast edge of the aircraft staging area that lay adjacent and outside the project site. On October 15, 1945, the base was placed on caretaker status and abandoned three months later. The site was occasionally used by the U.S. Air Force for balloon launches throughout the 1950s and was removed from the San Francisco Sectional Chart in 1965. The site has been used for agricultural and reclamation purposes in more recent years, which have either entirely covered or removed any trace of the Air

Force base within the project area. The intensive pedestrian survey failed to reveal any documented buildings, structures, or other historic resources within the project area itself. For these reasons, along with the limited grading and subsurface activity associated with the proposed project, the potential for the proposed project to have an adverse effect on known historic resources is considered moderate to low.

While unlikely, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic and prehistoric resources. Historic resources can include wood, stone, foundations, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, and other refuse. Accordingly, implementation of MM CUL-1 will be required to reduce potential impacts to historic resources that may be discovered during project construction. With the incorporation of mitigation, impacts associated with historic resources would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than significant impact with mitigation incorporated. Records search results from the NWIC indicate that no known archaeological resources exist within the project site or any of the previously surveyed parcels immediately adjacent to the project area. No prehistoric cultural resources have been recorded within the 0.5-mile search radius, and no Tribal Cultural Resources (TCRs) were identified as part of the NAHC Sacred Lands File search or through subsequent outreach and correspondence with Native American representatives. An intensive pedestrian survey of the project site conducted by FCS on September 13, 2016 also failed to identify additional archaeological resources or raw materials traditionally utilized in the production of those resources.

The project site is therefore considered to have moderate to low sensitivity for undiscovered archaeological resources, and no archaeological resources are expected to be encountered during construction activities associated with the proposed project. However, it is always possible that subsurface excavation activities may encounter previously undiscovered archaeological resources. Such resources could consist of but are not limited to stone, bone, wood, or shell artifacts or features, including hearths and structural elements. Accordingly, this is a potentially significant impact. Implementation of MM CUL-1 would ensure that this potential impact is reduced to a less-than-significant level.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant impact with mitigation incorporated. Dr. Finger's report concluded that there are no potentially fossiliferous sedimentary deposits on or adjacent to the project site. The distance between their nearest exposures and the project site indicates that the younger alluvium within the search area is likely to extend deeper in the subsurface than the depth of project-related excavations; thus, it is also highly unlikely that they will impact potentially fossiliferous late Pleistocene deposits in the subsurface. Neither a pre-construction paleontological walkover survey nor paleontological monitoring during earth-disturbing activities is warranted. Therefore, the

potential for the proposed project to have an adverse effect on paleontological resources is considered low.

Although not anticipated, sub-surface construction activities associated with the proposed project, such as grading and trenching, could result in a significant impact to paleontological resources, if encountered. Paleontological resources may include, but are not limited to, fossils from mammoths, saber-toothed cats, rodents, reptiles, and birds. Accordingly, implementation of MM CUL-2 will be required to reduce potential impacts to paleontological resources that may be discovered during project construction. With the incorporation of mitigation, impacts associated with paleontological resources would be less than significant.

d) Disturb any human remains, including those interred outside of formal cemeteries?

No human remains or cemeteries are known to exist within or near the project area. However, there is always the possibility that subsurface construction activities associated with the proposed project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. Accordingly, this is a potentially significant impact. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. In the unlikely event human remains are discovered, implementation of MM CUL-3 would reduce this potential impact to a less than significant level.

MM CUL-1 An archaeologist who meets the Secretary of Interior's Professional Qualification Standards for archaeology should be present during the initial phase of ground disturbance in order to check for the inadvertent exposure of cultural materials. This may be followed by regular periodic or "spot-check" archaeological monitoring during ground disturbance as needed, but full-time archaeological monitoring is not required at this time. In the event a potentially significant cultural resource is encountered during subsurface earthwork activities, all construction activities within a 100-foot radius of the find shall cease and workers should avoid altering the materials until an archaeologist has evaluated the situation. The Applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramics, fossils, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resource, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Any previously undiscovered resources found during construction within the project site shall be recorded on appropriate forms and will be submitted to the County of Stanislaus, the Central California Information Center (CCIC), and the State Historic Preservation Office (SHPO), if required.

MM CUL-2 In the event that fossils or fossil-bearing deposits are discovered during construction activities, excavations within a 100-foot radius of the find shall be temporarily halted

or diverted. The project contractor shall notify a qualified paleontologist to examine the discovery. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall document the discovery as needed in accordance with Society of Vertebrate Paleontology standards and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If the Applicant determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. The plan shall be submitted to the County of Stanislaus for review and approval prior to implementation, and the Applicant shall adhere to the recommendations in the plan.

MM CUL-3 In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.
2. Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.
   - The descendant identified fails to make a recommendation.
   - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains:

> When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop a plan for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American Burials with the appropriate Native Americans as identified by the Native American Heritage Commission.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
6. Geology and Soils *Would the project:*				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
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?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☒	☐

Environmental Evaluation

The Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to establish regulatory zones known as earthquake fault zones around the surface traces of active faults and to issue appropriate maps. The site is not located within an Alquist-Priolo Fault-Rupture Hazard Zone. The closest fault to the site is the Vernalis Fault, located approximately three miles away.[7] In general, while there are several known faults located in the extreme eastern part of Stanislaus County and in the Diablo Range west of Interstate 5, the project site is not located within a seismically active region

[7] California Geological Survey, Alquist-Priolo Earthquake Fault Zone Maps.

of the County. While active fault zones are not present on the site or in the surrounding area, active faults in the wider region are capable of causing significant ground shaking in the vicinity of the project site. Ground movement during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. The State Department of Mines and Geology and the State Office of Emergency Services indicates that ground shaking along the San Andreas, Calaveras, Hayward and Nacimiento faults can produce damage within the Stanislaus County.[8]

The Seismic Hazards Mapping Act addresses non-surface fault rupture earthquake hazards, including seismically induced landslides and liquefaction, is the process by which water-saturated soil materials lose strength and fail during strong seismic ground shaking.[9] The act resulted in a mapping program identifying areas that have the potential for liquefaction, landslide, strong ground shaking, or other earthquake and geologic hazards. The project site is not located in a State of California Seismic Hazard Zones identified in the 2010 Multi-Jurisdictional Hazard Mitigation Plan and the California Geological Survey Liquefaction map shows that the project site is located in a very low susceptibility area.

Expansive soils can change dramatically in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Sources of moisture that can trigger this shrink-swell phenomenon can include seasonal rainfall, landscape irrigation, utility leakage, and/or perched groundwater. Expansive soil can exhibit wide cracks in the dry season, and changes in soil volume have the potential to damage concrete slabs, foundations, and pavement. Special building/structure design or soil treatment are often needed in areas with expansive soils. The project site is located in an area that has been mapped with a high potential for soil shrink-swell;[10] however, the U.S. Department of Agriculture, Natural Resources Conservation Service's (NRCS) Web Soil Survey identifies the most common soils on the project site as Cortina gravelly sandy loam and Xerofluvents-Xerorthents, which are not considered expansive soils. [11]

The topography is generally flat, with minor graded slopes to promote drainage and collection of stormwater runoff. The California Geological Survey Landslide Susceptibility map locates the project site in a low risk susceptibility to landslide area.

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

[8] Stanislaus County General Plan 2035, Safety Element, page 5-2.
[9] Multi-Jurisdictional Hazard Mitigation Plan, 2010 Stanislaus County Hazard Assessment, page 98.
[10] San Joaquin County, 2035 General Plan EIR, page 4.1-4.
[11] US Department of Agriculture Natural Resource Conservation Service Soil Survey. Website: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed September 2, 2016.

Less than significant impact. As described above, the site is not located within an Alquist-Priolo Fault-Rupture Hazard Zone established by the State geologist. As such, the project would not expose substantial numbers of people or structures to significant risk of loss, injury, or death due to rupture of a known fault. Impacts would be less than significant.

ii) Strong seismic ground shaking?

Less than significant impact. While active fault zones are not present on the site or in the surrounding area, active faults in the wider region are capable of causing significant ground shaking in the vicinity of the project site. The project proposes the construction of some minor structures in the portion of the site within Stanislaus County, including an equipment wash and perimeter and internal fencing. All construction would be done in compliance with the provisions of the California Building Code and local regulations, as applicable, in order to minimize the risks associated with seismic ground shaking to the maximum extent practicable. Further, the project would not result in a substantial increase in the number of workers either permanently or during the construction phase. As such, impacts with respect to the risk of loss of life or death involving strong seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact. As described above, the project site is not located within a liquefaction hazard zone as mapped by the California Geological Survey. Furthermore, construction of the project would be done in compliance with standards established in the California Building Code and the County Code, thereby further reducing the risks associated with liquefaction. Therefore, overall, impacts would be less than significant.

iv) Landslides?

Less than significant impact. As described above, the site is in a relatively flat area with little potential for landslides. Further, the project site is not located within a landslide hazard zone as mapped by the California Geological Survey. Therefore, impacts due to landslides would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant impact with mitigation incorporated. Exposed soil on the project site could be subject to erosion if exposed to heavy rain, winds, or other storm events. The majority of the project site is currently covered by composting windrows, which limits the potential for soil erosion. The addition of new landscaping along the southern perimeter of the site would provide additional ground cover to further reduce the potential for erosion on that part of the site. During construction activities, earth moving could increase the potential for erosion; however, compliance with Stanislaus County Public Works Standards and Specifications would be required to minimize the potential for impacts related to erosion and runoff. Nevertheless, in the future, with expanded implementation of aerated static pile composting, the overall composting footprint of the facility would be reduced, thereby potentially exposing more soil on-site to erosion from heavy wind and

rain. Accordingly, implementation of MM GEO-1 will be required to reduce the potential for erosion and loss of topsoil on-site to a less than significant level.

MM GEO-1: In the event that windrows are permanently removed from the site, erosion control measures appropriate to local conditions shall be put in place. Measures could include the planting of vegetation or agricultural crops to decrease loss of soil by erosion.

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?

Less than significant impact. The Stanislaus General Plan states that ground failure and subsidence has not been a problem in the County and is not expected to be a problem. The topography of the project is generally flat, with minor graded slopes to promote drainage and collection of stormwater runoff. As discussed above, the project site is not located within an area prone to landslides or liquefaction. Therefore, impacts are less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less than significant impact. As described above, while the project site is located in an area that has been mapped with a high potential for soil shrink-swell, the NRCS Web Soil Survey does not identify expansive soils on the site. The project would involve construction of minor structures, including an equipment wash and perimeter and internal fencing in addition to lined stormwater detention ponds. Therefore, the potential for substantial risks to life or property as a result of expansive soils is minimal and associated impacts would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Less than significant impact. Septic tanks are currently used on the project site and in the surrounding area. Septic tanks require the approval of the Stanislaus County Department of Environmental Resources (DER) through the building permit process, which considers soil type among other considerations in the specific design requirements. Compliance with permit conditions would ensure that associated impacts are less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
7. Greenhouse Gas Emissions *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Evaluation

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant impact. Section 15064.4(b) of the CEQA Guidelines' amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- **Consideration #1:** The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration #2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration #3:** The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The project is expected to produce no increase in vehicle/truck trips or operational emissions compared to existing conditions. Therefore, under Consideration #1 the project would have no significant impact on GHG emissions.

Under Consideration #2, the project is compared to thresholds adopted by the SJVAPCD. The SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New

Projects under CEQA includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels (SJVAPCD 2009b). This level of GHG reduction is based on the target established by ARB's AB 32 Scoping Plan, approved in 2008. The SJVAPCD envisioned that projects under permit with the District would implement Best Performance Standards (BPS) that would achieve the required reduction amount. In this case, the project results in no new operational activity that would trigger the requirement to implement BPS at the facility.

Although no reductions are required to demonstrate consistency with Consideration #2, the project proposes improvements that are expected to reduce GHG emissions. The project includes the installation of aerated static piles (ASP) on a concrete pad approximately 40 acres in size and located to the southeast of the feedstock receiving and processing area. A pilot-scale ASP system will be operational by late 2016, with a full-scale ASP system to be implemented in phases over a period of 5 years beginning in 2017 as the concrete pad is constructed and the Facility transitions from the current windrow composting process to the ASP system. CalRecycle Research on Compost Emissions found that ASP reduces greenhouse gas (GHG) emissions by 64.3 percent, when compared to windrows made out of the same materials on the same day. Diesel use in pile construction and active-phase management was reduced by 87 percent compared to typical windrows. Water savings from the ASP system averaged around 20 percent, and the footprint needed for the ASP system is some 55 percent smaller than that required by windrows. The ASP system requires electricity to pump air through the static piles. Use of solar panels to power the air pumps could provide additional reductions according to the CalRecycle research. Based on this information, the project is consistent with Consideration #2.

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Less than significant impact. Consideration #3 listed above requires a review to determine the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. The County has not adopted a local greenhouse gas reduction plan. The ARB Scoping Plan (Measure No. RW-3) commits ARB staff to work with the California Integrated Waste Management Board (CIWMB), the California Department of Food and Agriculture, the Department of Transportation, and others to provide direct incentives for the use of compost in agriculture and landscaping. The project produces compost that can be used for these purposes and is consistent with this measure. The project is required to comply with SJVAPCD Rule 4566 Organic Material Composting Operations that helps reduce GHG emissions from composting operations.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
8. Hazards and Hazardous Materials *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
i) Would the project create significant nuisance conditions to the public or the environment through the generation of insects due to project operations?	☐	☒	☐	☐

Setting

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are found in commonly used products such as household cleaners, industrial solvents, paints and pesticides. Each year, Californians generate 2 million tons of hazardous waste. Stanislaus County has prepared a Hazardous Waste Management Plan, which guides the management of hazardous wastes in the County and governs the maintenance of a hazardous materials response team to assist police and fire agencies during transportation and industrial accidents involving chemical spills. Additionally, state laws were passed in 1985 that require users of hazardous materials to disclose the type and location of such materials so that emergency response teams can be prepared for potential disasters.

The State of California uses databases such as GeoTracker and EnviroStor to map the location of hazardous waste sites including sites that have been remediated, sites currently undergoing remediation, and sites that require cleanup. A search of the databases found one hazardous materials site located 0.25 mile from the project site, NAAS Vernalis Sun Dry Products, located at 3401 Gaffery Road.[12] The site is currently undergoing investigation and risk evaluation for leaking and spilling tanks and containers.

State and federal agencies administer laws, regulations and requirements that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. These agencies include the United States Environmental Protection Agency (EPA), the U.S. Department of Transportation (DOT), the Occupational Safety and Health Administration (OSHA), the California EPA, and the California Department of Toxic Substances Control. The Stanislaus County Office of Emergency Services is responsible for developing and maintaining emergency preparedness programs for the County and its nine cities. EOS has prepared an Emergency Operations Plan (EOP) that addresses the planned response to extraordinary emergency situations such as natural disasters, technological incidents and national security emergencies n or affecting the County. The San Joaquin County Office of Emergency Services has developed a similar EOP. The County EOPs are extensions of the State of California's Emergency Plan.

The nearest airport to the project site is New Jerusalem Airport, located approximately 5 miles northeast of the project site. The airport has adopted an Airport Comprehensive Land Use Plan (CLUPs) that specify its area of influence for each airport, and the project site is not located within it.

Because of the hot, dry summers in the County, this increases the chance of wildfires spreading in the area. Most common areas in the County that have the potential for wildfires include the Diablo Range, and the Sierra Nevada foothills. However, the proposed project is not located in an area with a high risk of fires, as described by CalFire.[13]

[12] State Water Resources Control Board Geo-Tracker. Website: http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=3401+gaffery+road+vernalis%2C+ca. Accessed September 7, 2016,.

[13] CalFire. Website: http://www.fire.ca.gov/fire_prevention/fhsz_maps_stanislaus. Accessed September 7, 2016.

Stanislaus County recognizes nuisance flies as an environmental hazard. Nuisance flies are known to cause significant economic losses in the form of reduced agricultural yields, increased damage to livestock, and higher production costs. Additionally, nuisance flies have been shown to carry a large number of disease causing pathogens such as Salmonella bacteria and Trachoma virus (bovine pink eye) and may be responsible for infecting animals or humans.[14] Based on a nuisance fly study completed by Sierra Research Laboratories and included as Appendix E, common nuisance flies found in the vicinity of the project site include flesh flies (*Sarcophagids*), blow flies (*Callophorids*), stable flies (*Stomoxys calcitrans*), house flies and little house flies (*Fannia*). On the project site itself, the following species have been observed: house fly, *Musca domestica*, little house fly, blow fly, and a very small wasp species, possibly a parasitic species.[15] The County Environmental Resources Department is responsible for implementing and enforcing fly abatement measures countywide.

Environmental Evaluation

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? During construction hours, potentially hazardous materials would be used on-site.

Less than significant impact. Toxic substances and hazardous materials are not accepted on-site and hazardous materials are not used in the composting process. Some cured compost is blended with additives or amendments to provide attributes for certain compost products based on market demand and as requested by customers. Materials that may be stored on-site, typically in the finished compost area, for potential use as additives or amendments include, but are not limited to, wood chips, clean soils, clay, other compost, zinc sulfate, potash sulfate, sulfur, boron, phosphorus, oyster shells, bedding sand, gypsum, lime, and dolomite. Diesel fuels, gasoline, and lubricants for the heavy equipment and vehicles would be used on-site, as well as cleaning products, cleaning solvents, and pesticides used in routine maintenance and landscaping activities on-site. However, the amounts used would not be in sufficient quantities to create a significant hazard to the public through routine transportation, use, or disposal of hazardous materials. Further, transport, use and disposal of these materials would be in compliance with existing regulations and standard procedures, including the Department of Transportation provisions, which regulate the transport of hazardous materials, and would minimize risks to the maximum extent practicable. Therefore, associated risks would be less than significant.

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?

Less than significant impact. While toxic substances and hazardous materials are not accepted on-site and hazardous materials are not used in the composting process, as stated above, small quantities of hazardous materials such as fuels, gasoline, lubricants, cleaning solvents, and pesticides

[14] Alec Gerry. 2008. Management of Nuisance Flies: Dairy Design and Operational Considerations. April.
[15] William A. Donahue, Jr., Ph.D. 2016. Sierra Research Laboratories, Inc. "Nuisance Fly IPM for Recology Organics." September 11. Page 3.

would be used for heavy equipment and vehicles on-site, as well as for routine maintenance and landscaping. Federal, state, and local controls have been enacted, and are enforced, to reduce the effects of potential hazardous materials spills. Therefore, it is not anticipated that use of hazardous materials would result in a reasonably foreseeable upset or accident condition that would cause significant hazard to the public or environment.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No impact. Rising Sun School, located at 2243 Welty Road in Vernalis, is located 2.5 miles from the project site. While trucks traveling to and from the site travel primarily along Gaffery and South Koster Roads, some trucks may travel along Welty Road passing by Rising Sun School. However, as toxic substances and hazardous materials are not accepted on-site and hazardous materials are not used in the composting process, the risk of accident, upset, or emission of hazardous substances or materials within 0.5 mile of the school is low. With compliance with applicable federal, state, and local regulations, impacts would be less than significant.

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?

Less than significant impact. As stated above, there is an underground storage tank (UST) site located 0.25 mile from the project site at 3401 Gaffery Road in Vernalis. The site is currently undergoing investigation and risk evaluation for leaking and spilling tanks and containers. The site is not located on a hazardous materials site, and, accordingly, the project would not create a significant associated hazard to the public or the environment.

e, f) 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, or 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?

No impact. The nearest airport to the site is New Jerusalem Airport, located approximately 5 miles northeast. The project site is not located in its airport influence zone and continued operation of the composting facility on the project site would not result in an airport safety hazard. Therefore, there would be no associated impact.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. Stanislaus County is currently working to develop evacuation routes to be used in case of a disaster. These routes will likely include state and local highways such as I-5/I-580 and SR-132. Trucks travelling to and from the project site would likely add traffic along those routes; however, with fewer than 200 average daily trips during operating hours, the volume of traffic would not be substantial in comparison to the average daily traffic volumes on these regional

routes. As such, impacts with respect to impairing implementation of adopted emergency plans would be less than significant.

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?

No impact. As described above, the project site is not located in High or Very High fire risk area as delineated by California Department of Forestry and Fire Protection (CalFire). Compliance with state and local plans and regulations, including the California Fire Code, Stanislaus County's Multi-Jurisdictional Hazard Mitigation Plan, and the County Codes would ensure that impacts associated with wildland fires are less than significant.

i) Would the project create significant nuisance conditions to the public or the environment through the generation of insects due to project operations?

Under the Right-to-Farm notice (Stanislaus County Code Section 9.32.050), Stanislaus County requires that residents near agricultural land recognize and be prepared to accept nuisances common to agricultural practices, including flies. Agricultural operations are not considered to be a nuisance if they are consistent with accepted customs and standards; however, if fly nuisance conditions above and beyond what is customary become evident and a complaint is filed with the County, the County Environmental Resources Department responds by inspecting the facility within 7 to 10 days. If the inspection confirms a nuisance condition, the Environmental Resources Department requires the owner/operator to remedy the nuisance condition within a specified period of time, and may impose additional control measures on a site-specific basis. The Department subsequently notifies the complainant of its findings and follows up to ensure remedy, or alternately initiates an enforcement action if the nuisance condition persists.

As described above house fly, little house fly, blow fly, and a very small wasp species have been observed on the project site. Concentrations of adult flies are highest near the newest green waste placed in windrows and populations are lowest at the far south-east corner of the Recology site outside the fence in the landscaped area.[16] Because of the high levels of heat generated in the windrows during the natural decomposition process, many organisms are broken down to basic chemical units or killed outright. As such, fly conducive conditions may only be present on-site for the first 2 to 4 weeks of the 90-day composting process. Implementation of the ASP system would speed up the composting process and reduce the period of fly conducive conditions further; however, the project would still result in fly conducive conditions on-site and this represents a potentially significant impact. Implementation of Mitigation Measure MM HAZ-1 would reduce this potential impact to a less than significant level.

MM HAZ-1: To minimize potential for fly nuisance conditions, the applicant shall contract with a licensed pest management service to develop and implement a fly control plan that includes the use of measures such as:

[16] William A. Donahue, Jr., Ph.D. 2016. Sierra Research Laboratories, Inc. "Nuisance Fly IPM for Recology Organics." September 11. Page 3.

- Adult fly knockdown agents including organic certified sprays as well as EPA Exempt (25(b)) options, fly specific bacterial and fungal sprays (Elector PSP—Spinosad, fungal pathogen—*Beauveria bassiana*), botanical insecticides—pyrethrurn, Pyrethrins + synergists), short residual sprays with rapid degradation.
- Granular fly baits in selected areas applied in bait trays, on bait cards or as scatter baits.
- Insect Growth Regulators (IGR) such as Tekko 10, Tekko Pro or Neporex to break the life cycle of flies by preventing molting, metamorphosis and reproduction.
- Insecticide (deltamethrin) impregnated mesh used for stable fly control.
- Increased frequency for turning of green waste to disrupt fly breeding and attraction and to make the material less conducive to flies.
- Expanded monitoring of flies on-site and in the surrounding area to determine what the seasonal fly pressure and to establish the normal background level of flies as a benchmark for future remedial action.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
9. Hydrology and Water Quality *Would the project:*				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
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?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of 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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Environmental Evaluation

There are four major rivers in Stanislaus County. The Stanislaus, Calaveras, Tuolumne Rivers, and the San Joaquin Rivers are not within the vicinity of the project site. The nearest water body to the project site is the Delta Mendota Canal, which lies west of the project site. Stanislaus County has three reservoirs; Modesto, Woodward and Turlock. The project site is located in a rural agricultural open farmland neighborhood, and not served by a City's storm drain system.[17]

The Porter-Cologne Water Quality Control Act oversees California's water quality control. The act establishes the SWRCB and the nine regional offices, each having jurisdiction to regulate and protect waters in each region. The SWRCB and RWQCB issue and enforce general waste discharge requirements for composting operations. The Central Valley Regional Water Quality Control Board (CVRWQCB) is the regional board that serves San Joaquin and Stanislaus counties.[18] SWRCB General Order 2015-0121-DWQ-R5S001, adopted in August 2015, streamlined permitting processes for composting facilities and established regulations for water quality at new and existing composting facilities. Control of "leachate" (a liquid by-product of composting that consists of a variety of pollutants, including salts, nitrates, pesticides, and metals) has historically been the principal water quality issue at composting facilities.[19] The General Order sets forth standards to regulate water quality and reduce or avoid adverse effects from leachate, including standards for depth to groundwater; distance to surface water; allowable and prohibited feedstocks, additives, and surface pads; wastewater handling; berms; and facility monitoring. The General Order puts most composting facilities in either a Tier I or a Tier II category, based predominantly on feedstock type, total volume of materials, and hydrogeological siting. Tier II facilities are subject to heightened regulatory requirements.

The Federal Emergency Management Agency (FEMA) issues Flood Insurance Rate Maps (FIRM) that identifies land areas that are subject to flooding. FEMA's minimum level of flood protection for new development is the 100-year flood event, a flood that statistically has a one percent probability of occurring in any given year. The project site is not within a designated FEMA 100-year floodplain.[20]

There are 17 water supply wells within 1 mile of the facility, including municipal, industrial, and agricultural water supply wells.[21] Of these 17 wells, three are RBVON water supply wells (two are on-site, and one is 50 feet from the site). Depth to groundwater ranges between 110 and 118 feet below ground surface, and the groundwater flow direction is to the west-northwest, as determined from water levels measured in the three new groundwater monitoring wells.

Dam inundation occurs when a flood control dam/water reservoir is damaged severely enough to compromise its ability to hold backwater. These events pose a high risk the community, but have low occurrence. This damage can occur as a result of earthquakes or other seismic activity, erosion of the dam face or foundation, or rapidly rising floodwaters that weaken the dam or overwhelm its

[17] Multi-Jurisdictional Hazard Mitigation Plan 2010, page 15.
[18] Nine Regional Water Quality Control Boards in California Fact Sheet.
[19] Sherry E. Jackman. Greenberg Glusker Fields Claman & Machtinger LLP. "State Water Board Approves composting General Order." Website: http://www.lexology.com/library/detail.aspx?g=6d1421a8-de6e-4926-8bdc-d2b2d2e0aef6. Accessed on October 24, 2016.
[20] FEMA Flood Zones, accessed August 23, 2016.
[21] Central Valley Regional Water Quality Control Board. 2016. "Notice of Applicability Water Quality Order 2015-0121-DWQ." January.

capacity to drain excess water. When a dam fails, sudden fast moving floods migrate throughout the inundation zone. The speed and volume of these floodwaters can damage or destroy property, cause injury or loss of life, and displace large numbers of residents in the flood's path. There are three major dams in Stanislaus County: the Tulloch, New Melones, and Don Pedro dams. The inundation areas of these dams do not reach the project site.[22]

Other hazards include seiches, oscillations of water in an enclosed body of water caused by strong winds and rapid changes in atmospheric pressure. An earthquake of sufficient magnitude could cause a seiche in the Modesto, Woodward or Turlock reservoirs. The General Plan specifically lists tsunamis as a low susceptibility hazard due to the distance to the nearest coastline.[23]

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Less than significant impact with mitigation incorporated. Construction of the project will require grading and construction of new structures. Extensive soil removal during the construction period may cause erosion and temporary impacts to water quality. As required under Section 14.14.120 of the Stanislaus County Code, the project applicant will be required implement a Storm Water Pollution Prevention Plan (SWPPP) as required under the General Construction Permit for Discharges of Storm Water Associated with Construction Activities, for all construction phases of the project. The SWPPP shall identify pollutant sources that may affect the quality of stormwater discharge and shall require the implementation of best management practices (BMPs) to reduce pollutants in stormwater discharges. BMPs include temporary erosion control measures (such as fiber rolls, staked straw bales), landscaping, and sediment basins.

Composting operations have the potential to result in violations of water quality standards or waste discharge requirements. The facility would implement MM HYD-1 to comply with the State Water Resources Control Board's Industrial General Permit for stormwater discharge. The project would also include improvements to the capture, conveyance, and treatment of wastewater and stormwater on-site in order to ensure compliance with General Wastewater Discharge Requirements for Composting Operations, adopted by the California State Water Resources Control Board in 2015. With implementation of MMs HYD-1 and HYD-2, impacts would be less than significant.

MM HYD-1 The Applicant shall prepare and implement a SWPPP as required under the General Construction Permit for Discharges of Storm Water Associated with Construction Activities, for all construction phases of the project. The SWPPP shall identify pollutant sources that may affect the quality of stormwater discharge and shall require the implementation of BMPs to reduce pollutants in stormwater discharges. BMPs include temporary erosion control measures (such as fiber rolls, staked straw bales), landscaping, and sediment basins.

[22] Multi-Jurisdictional Hazard Mitigation Plan 2010, page 172.
[23] Stanislaus County Safety Element, page 5-2.

MM HYD-2 In order to comply with the Regional General Order from the SWRCB, the project shall implement periodic monitoring and inspections of surface and groundwater quality to ensure protection of beneficial uses. Mitigation for surface waters is outlined in the Design Construction and Operation Requirements. Drainage conveyance systems and ditches must be properly sloped to minimize ponding and kept free and clear of debris to allow for continuous flow of liquid. Ditches must be adequately protected from erosion, and must not cause, threaten to cause, or contribute to conditions resulting in contamination, pollution, or nuisance. Ditches must be inspected and cleaned out prior to the wet season every year.

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?

Less than significant impact. Stanislaus County Code Chapter 9.37 establishes Groundwater regulations. A permit for a water management practice must be consistent with policies set forth in Section 9.37.020, including reasonable and beneficial use and sustainable groundwater management. The project site receives its water supply from existing groundwater wells, which are roughly 100-118 feet in depth. The site also has a 5 percent allotment from the Delta-Mendota Canal, which is equivalent to 21 acre-feet. The proposed upgrades to the facility would not result in an increase in the water allocation entitlements. A new potable water supply well would be drilled south of Gaffery Road and west of the existing maintenance shop on-site, which would provide water to the bathroom in the maintenance shop and the administrative office and visitor parking area. However, the new well would be subject to the application requirements outlined in Section 9.37.045 of the Stanislaus County Code, which require a demonstration that the proposed well will not constitute unsustainable extraction of groundwater. In addition, the new equipment wash would collect, filter, and re-use wash water for use as process water, reducing the use of potable water. The proposed stormwater basins would also be used to store wastewater from the site, until reused as process water for composting. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of 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?

Less than significant impact. As described above, the topography is generally flat, with minor graded slopes. The proposed project would result in the construction of stormwater conveyance and storage facilities, and therefore would substantially alter the landscape and affect the existing natural drainage pattern on the site. However, these alternations would not result in erosion or siltation on or off-site, and would be designed to retain stormwater flows on-site. Therefore, impacts would be less than significant.

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?

Less than significant impact. The proposed project would not substantially alter the existing drainage pattern or the course of a stream or river nor increase the amount of runoff that would result in flooding. The proposed project would result in the construction of stormwater conveyance and storage facilities, which would result in improvements to the capture, conveyance, and treatment of wastewater and stormwater on-site, thereby reducing the amount of runoff and potential for flooding. The conveyance system would address any impacts by capturing surface and windrow runoff. Additionally, as part of the NPDES process, the applicant must prepare a SWPPP according to the latest regulations. The SWPPP must include BMPs that, when implemented, prevent stormwater quality degradation to the extent practical by preventing sediments and other pollutants from leaving the project site. The storage ponds would prevent on-site drainage from flowing off-site. Therefore, impacts are less than significant.

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?

Less than significant impact. Surface runoff would be diverted to the improved wastewater system, which will consist of wastewater conveyance pipes, low flow diversion structure, lined ponds, and lined treatment pond with associated facilities. Prior to construction, the applicant will be required to demonstrate to the satisfaction of the County that adequate capacity for stormwater storage is ensured throughout the rainy season. The project would adhere to the County Codes and the Design, Construction, and Operation requirements from the SWRCB, which would reduce impacts to a less than significant level.

f) Otherwise substantially degrade water quality?

Less than significant impact. The proposed project includes upgrades to an existing composting facility in the Vernalis area. Construction of the facility will include excavation of soils and development of new structures and wastewater facilities in order to ensure compliance with General Wastewater Discharge Requirements for Composting Operations, adopted by the California State Water Resources Control Board in 2015.

After the upgrades are completed, the facility will include containment structures (e.g., berms, pads, detention ponds, tanks, run-on/runoff control structures, etc.) and monitoring systems (e.g., groundwater monitoring devices). These measures will prevent feedstock, additives, amendments, compost (active, curing, or final product), or wastewater from creating, threatening to create, or contributing to conditions of contamination, pollution, or nuisance. Impacts associated with water quality would be less than significant.

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?

No impact. The project would not result in the placement of housing within a 100-year flood hazard area. The proposed project would consist of the construction and upgrade of existing facilities and infrastructure at a composting facility, and does not include housing. Furthermore, the project site is not located within a flood hazard boundary. No impacts would occur.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No impact. The project site is not located within a 100-year flood hazard zone as shown in the FEMA Flood map. Furthermore, the site is not located within the flood zones outlined in the Multi-Jurisdictional Hazard Mitigation Plan. No impacts would occur.

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?

Less than significant impact. The Stanislaus County General Plan Safety Element maps major water bodies and rivers within Stanislaus County. The inundation areas of the three major dams in Stanislaus County, including Tulloch, New Melones, and Don Pedro, do not reach the project site. Therefore, impacts are less than significant.

j) Inundation by seiche, tsunami, or mudflow?

Less than significant impact. The General Plan Safety Element identifies inundation by tsunami as a hazard which could not affect the County. The topography of the project site is generally flat, with minor graded slopes for stormwater drainage. There are no hilly terrains located on the site, therefore the susceptibility of inundation by mudflow is low. Sufficient ground movement could cause a seiche in one of the County reservoirs. However, as described above, the project site is not located in an inundation area of the three major dams, and therefore impacts are less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
10. Land Use and Planning *Would the project:*				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☒	☐

Environmental Evaluation

The project site is composed of three parcels totaling 161.78 acres in area. APN 016-003-010 (112.45 acres) and APN 016-016-023 (38.47 acres) are located in Stanislaus County, while APN 265-010-21 (10.82 acres) is in San Joaquin County. All three parcels are designated General Agriculture in both the Stanislaus and San Joaquin County General Plans. In Stanislaus County, this designation recognizes the value and importance of agriculture and precludes incompatible urban development within agricultural areas. In San Joaquin County, this designation applies to areas suitable for agriculture outside areas planned for urban development where the soils are capable of producing a wide variety of crops and/or supporting grazing.

APN 016-003-010 and APN 016-016-023 in Stanislaus County are zoned A-2 General Agricultural District. Agriculture-related commercial and industrial uses, including composting facilities, are permitted with a Use Permit in the A-2 District, where the Planning Commission or Board of Supervisors can make findings of compatibility. Both parcels are enrolled under Williamson Act Contract No. 75-1888, and A-2 zoning regulations require that Use Permits approved on Williamson Act contracted lands:

- Not significantly compromise the long-term productive agricultural capability of the subject contracted land;
- Not significantly displace or impair agricultural operations on the contracted land or other Contracted lands in the A-2 zoning district;
- Not result in the significant removal of adjacent contracted land from agricultural or open-space use.

APN 265-010-21 in San Joaquin County is zoned General Agriculture, a zone established to preserve agricultural lands for the continuation of commercial agriculture enterprises. A portion of this parcel containing undeveloped non-native grass habitat is within designated agricultural zoned lands of the San Joaquin County Multi-Species Habitat Conservation Plan and Open Space Plan Area.

Would the project:

a) Physically divide an established community?

No impact. The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local bridge that would impact mobility within an existing community of between a community and outlying area. The project does not involve any such features, and would not remove any means of access or impact mobility. The project site is located in a rural agricultural setting, bordered by agricultural lands to the north and south, the Delta-Mendota Canal to the west and an industrial hauling and agricultural reclamation facility to the east. There are fewer than five rural residences within a one-mile radius of the site. A large earthen berm runs along the western perimeter of the property, and there is perimeter fencing on the southern and northern edges of the site. The site has operated as a composting facility since 1991 and implementation of the project would continue that use. As such, the project would not physically divide an established community and there would be no associated impact.

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?

Less than significant impact. Project implementation would involve continued operation of a composting facility on the site, producing organic matter for use as soil amendment to enhance the properties of soils in agricultural production. Finished compost from the project would be sold in bulk for application to vineyards, orchards, and other agricultural crops largely in Stanislaus and San Joaquin Counties. As such, the project is consistent with applicable land use and zoning designations in that it would involve an agriculture-related commercial use. Further, the project would not compromise the long-term productive agricultural capability of the site or introduce new facilities that would preclude agricultural uses on-site in the future, nor would it remove adjacent Williamson Act contracted land from agricultural use or induce surrounding land to convert to non-agricultural uses. In addition, the project would directly support Stanislaus County General Plan Conservation/Open Space Element Goal Eleven, which seeks to minimize the disposal of solid waste through source reduction, reuse, recycling, composting, and transformation activities, as well as Policy 22—Implementation Measure No. 5, which seeks to encourage and promote activities, projects, and businesses that divert special waste from landfills, including composting and co-composting operations. Therefore, impacts related to conflicts with land use plans, policies and regulations would be less than significant.

c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?

Less than significant impact. As described above, a portion of APN 265-010-21 containing undeveloped non-native grass habitat is within designated agricultural zoned lands of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan Area; however, project implementation is not proposed for this portion of the site, and, therefore, there would be no impact with respect to conservation plan conflicts.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
11. Mineral Resources *Would the project:*				
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Environmental Evaluation

Mineral aggregate, such as sand, gravel and building stone used in construction, is found in the flood plains of rivers and streams, including the San Joaquin River in the vicinity of the project site. Because of the expense of transporting aggregate over long distances, locating easily accessible, high grade local deposits of aggregate is vital to continued economic development. The Surface Mining and Reclamation Act of 1975 (SMARA) is the primary state law concerning mineral resources. Because of the economic importance of mineral resources, SMARA limits new development in areas with significant mineral deposits. SMARA also requires State Geologists to classify specified areas into Mineral Resource Zones (MRZs). As shown on Exhibit 6, the northern portion of the project site is underlain by MRZ-2, where significant mineral deposits are present or highly likely present. Additionally, the remainder of the site is underlain by MRZ-3, where mineral resources are potentially present, although unconfirmed.

There are a number of aggregate mineral resource recovery sites in the vicinity of the project site, including the following active mines within a 2-mile radius: Knife River, Vernalis Telchert, Vernalis Granite, and Valley Rock.[24] [25] There are no mineral resource recovery sites on the project site itself.

Would the project:

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?

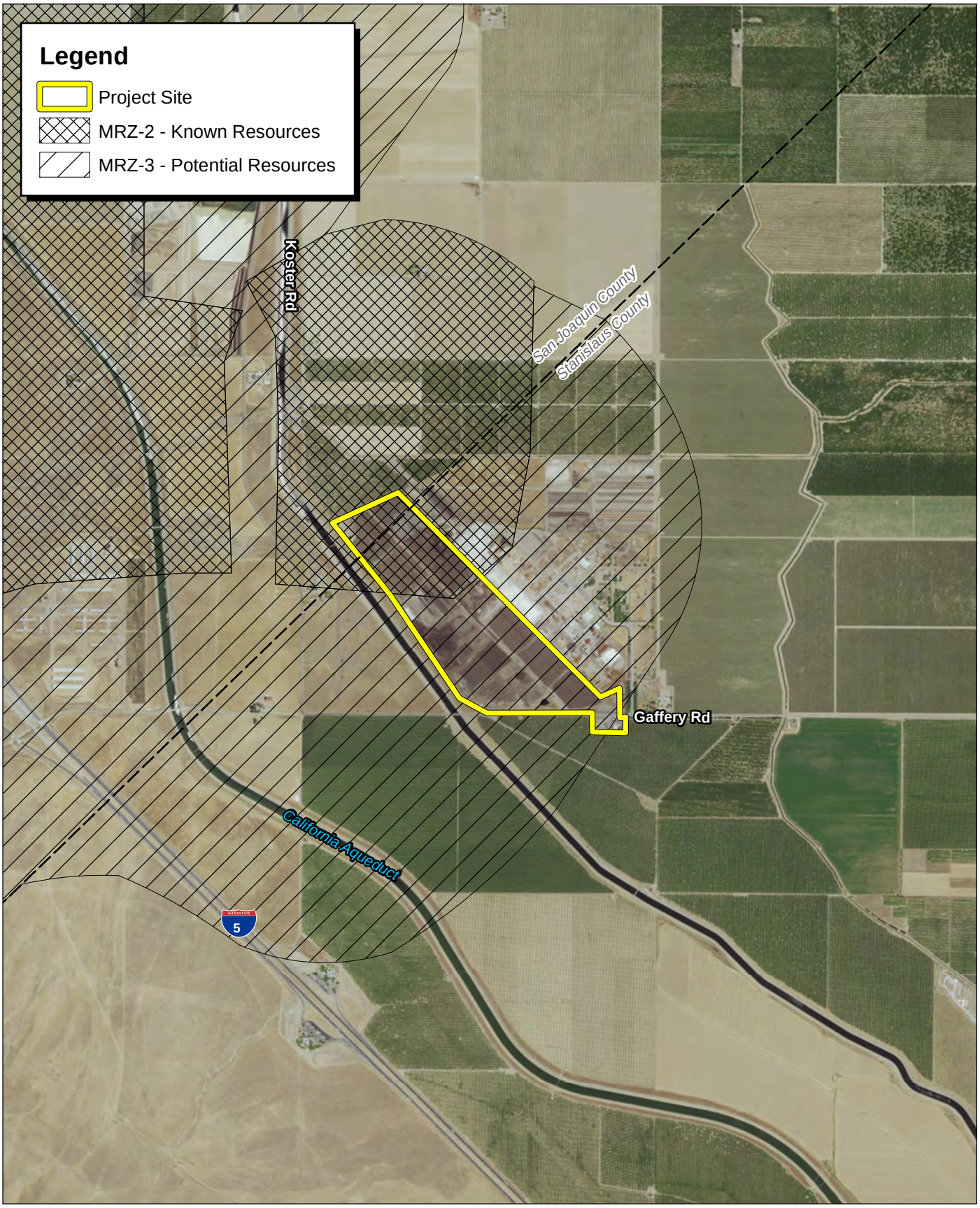
Less than significant impact. As noted above, the project site are underlain by MRZ-2 and MRZ-3, where mineral resources are known or potentially present; however, under SMARA, land uses such as very low density residential, agricultural, grazing, and open space uses are considered compatible uses as they would require only a minimum public or private investment in structures or land improvements and that would allow mining because of the relative economic value of the land and

[24] San Joaquin County 2035 General Plan Draft EIR, Mineral Resources, page 4.O-2.
[25] California Geological Survey Map. Website: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_199/SR_199_Plate2.pdf. Accessed September 1, 2016.

its improvements. As described in Section 4.10 above, the project is an agricultural use and is therefore a compatible use under SMARA. As such, implementation of the project would not result in the loss of availability of a known mineral resource of value, and associated impacts would be less than significant.

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?

No impact. While there are several active mines in the surrounding area, as noted above, there are no mineral resource recovery sites on the project site itself. Further, the agricultural use proposed on the site is considered a compatible land use under SMARA. Therefore, there would be no impact associated with the loss of availability of a locally important mineral resource recovery site.



Source: California Division of Mines and Geology Special Report 160; ESRI Imagery, 2015

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Exhibit 6
Mineral Resource Zones

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Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
12. Noise *Would the project result in:*				
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?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Environmental Evaluation

This section describes the existing noise setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on ambient noise measurements performed by FirstCarbon Solutions. The noise measurement data sheets and are included in this Initial Study as Appendix D

Would the project result in:

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?

Characteristics of Noise

Noise is defined as unwanted sound. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing. Most of the sounds that we hear in

the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. Noise is typically generated by transportation, specific land uses, and ongoing human activity.

The standard unit of measurement of the loudness of sound is the decibel (dB). The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. A change of 3 dB is the lowest change that can be perceptible to the human ear in outdoor environments. While a change of 5 dBA is considered to be the minimum readily perceptible change to the human ear in outdoor environments.

Since the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale (dBA) was derived to relate noise to the sensitivity of humans, it gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for a number of various sound level metrics, including the day/night sound level (L_{dn}) and the Community Noise Equivalent Level (CNEL), both of which represent how humans are more sensitive to sound at night. In addition, the equivalent continuous sound level (L_{eq}) is the average sound energy of time-varying noise over a sample period and the L_{max} is the maximum instantaneous noise level occurring over a sample period.

Noise monitoring locations and measurements are described in detail on the noise measurement survey sheets in Appendix D. The noise measurements were recorded for 15-minute durations, between 12:00 p.m. and 4:00 p.m., on Tuesday, September 13, 2016 and Wednesday, September 14, 2016. The noise measurements locations are described in Table 6 and are shown in the noise monitoring data in Appendix D. The noise monitoring locations were selected in order to document existing daytime ambient noise levels on the project site and to document noise levels associated with existing operations. The average ambient noise levels documented during these measurements range from 45.7 dBA to 73.1 dBA L_{eq}.

At the start of the noise monitoring, winds were calm with speeds averaging 1.6 mph. The temperature during the noise measurements ranged from 73 to 87.2 degrees Fahrenheit. The primary noise sources in the project vicinity were traffic on Gaffery Road, trucks operating on the project site, and construction equipment operating west of the project site. The results of the noise level measurements are provided in Table 4.

Table 4: Noise Monitoring Summary

Site Location	Description	L_{eq}	L_{max}	L_{min}
ST-1	Southeast corner of the project site, north and adjacent to Gaffery Road	45.7	68.5	35.6
ST-2	Northeast of property on eastern side of access road, south of scales	73.1	94.1	53.7
ST-3	Eastern edge of project site, approximately 750 feet from Gaffery Road	49.6	65.0	39.2

Table 4 (cont.): Noise Monitoring Summary

Site Location	Description	L_{eq}	L_{max}	L_{min}
ST-4	Eastern boundary of project site approximately 1,730 feet north of Gaffery Road	69.3	76.3	65.6
Source: FirstCarbon Solutions, 2016.				

Regulatory Framework

Local Regulations

Stanislaus County has the authority to set land use noise standards and place restrictions on private activities that generate excessive or intrusive noise. The following policies are applicable to the proposed project and land use, which are located in the Noise Element of the General Plan and County Code.

General Plan

The majority of the project site is located within Stanislaus County. Stanislaus County has established Noise Compatibility Standards for residential and non-residential land uses in the Noise Element of the Stanislaus County General Plan (Stanislaus County 2016).

For the proposed Recology Blossom Valley Organics North Facility Project, the closest comparable land use designation of the County's land use compatibility guidelines is industrial development land use. The following is a summary of General Plan policies relevant to noise and vibration that are applicable to the land use designation of industrial development:

The County requires new development to meet the exterior noise levels established in the Land Use Compatibility Standards for Community Noise Environments, which are shown in Exhibit 7. According to these standards, the upper limit of "normal acceptable" exterior noise levels is 75 dBA L_{dn} for new industrial development in the County. A "normal acceptable" noise level does not require any special noise insulation requirements and conventional construction methods can be used. Environments with exterior noise levels between 75 dBA and 80 dBA L_{dn} are considered "normally unacceptable" for new industrial development. Under these conditions, new development is discouraged and requires a detailed analysis of noise reduction requirements and provision of noise insulation design features.

Exterior and interior noise level criteria applied to land uses other than noise sensitive uses should be consistent with the recommendations of the Land Use Compatibility for Community Noise Environments.

Performance Standards

The County's established noise performance standards for stationary sources are 55 dBA L_{eq} from 7:00 a.m. to 10:00 p.m. and 45 dBA L_{eq} from 10:00 $_{p.m.}$ to 7:00 a.m. daily; and 75 dBA L_{max} from 7:00 a.m. to 10:00 p.m. and 65 dBA L_{max} from 10:00 p.m. to 7:00 a.m. daily as measured at a receiving noise-sensitive land use.

The noise performance standard standards should be reduced by five (5) dBA for noise consisting primarily of speech or music or for recurring impulsive noises. They should be applied at residential or other noise-sensitive land use and not on the property of a noise-generating land use. Where measured ambient noise levels exceed the performance standards, the standards should be increased to the ambient levels.

New development of industrial, commercial or other noise generating land uses will not be permitted if resulting noise levels will exceed 60 L_{dn} in noise-sensitive areas. Additionally, the development of new noise-generating land uses which are not restricted from local noise regulation will not be permitted if resulting noise levels will exceed the performance standards listed previously, in areas containing residential or other noise sensitive land uses.

Noise sources such as local industries or other stationary noise sources, must not exceed the maximum allowable noise exposure for stationary noise sources performance standards at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

The County implements the use of CEQA and the development review processes to ensure that new development does not exceed County standards. The following are required by the County prior to the approval of the proposed industrial development, commercial or other noise generating land use in an area containing noise-sensitive land uses, where a required acoustical analysis will:

- Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- Include ambient noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- Include estimated noise levels in terms of L_{dn} and the standards of the Land Use Compatibility for Community Noise Environments (Exhibit 7).
- Include recommendations for appropriate mitigation to meet compliance with the adopted policies and standards of the Noise Element.
- Include estimates of noise exposure after the recommended mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a rationale for acceptance of the project must be provided.

Lastly, the County requires the evaluation of mitigation measures for projects that would cause the L_{dn} at noise sensitive uses to increase by 3 dBA or more and exceed the “normal acceptable” level, cause the L_{dn} at noise-sensitive uses to increase 5 dBA or more and remain “normal acceptable,” or cause new noise levels to exceed the noise performance standards of the County Code.

Land Use Category	Exterior Noise Exposure L_{dn} or CNEL, dBA					
	55	60	65	70	75	80
Residential - Low Density Single Family, Duplex, and Mobile Homes						
Multi Family Residential			*			
Hotels and Motels						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Auditoriums, Concert Halls, and Amphitheaters						
Sports Arena and Outdoor Spectator Sports						
Playgrounds and Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, and Cemeteries						
Office Buildings, Business Commercial, and Professional						
Industrial, Manufacturing, Utilities, and Agriculture						

** Interior noise levels shall not exceed 45 Ldn in all new residential units (single and multi family). Development sites exposed to noise levels exceeding 60 Ldn shall be analyzed following protocols in Appendix Chapter 12, Section 1208, A, Sound Transmission Control, 1998 California Building Code.*

NORMAL ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.

CONDITIONALLY ACCEPTABLE
Specified land use may be permitted only after detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

Source: Stanislaus County General Plan

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Exhibit 7
Land Use Compatibility for Community Noise Environments

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County Code

The County of Stanislaus addresses construction noise in Chapter 10.46—Noise Control Ordinance of the County Code.

The County permits the operation of construction equipment between the hours of 7:00 a.m. and 7:00 p.m., where noise levels do not exceed 75 dBA L_{dn} at or beyond the property line of any property where a dwelling unit is located. The County permits the operation of any power tools or equipment activities between the hours of 7:00 a.m. and 10:00 p.m., where these activities are not audible to the human ear inside an inhabited dwelling other than where the equipment is stored. The operation of these activities are restricted at any other time when they are audible to the human ear at a distance further than 100 feet from these activities.

The County restricts any person to create any noise, which causes the exterior noise level when measured at any property located in either the incorporated or unincorporated area of the County to exceed the noise level standards. All properties within the designated industrial noise zone should not exceed 75 dBA L_{max} between 7:00 a.m. and 9:59 p.m. as well as 75 dBA L_{max} between 10:00 p.m. and 6:59 a.m. Exterior noise levels of all parcels located within an industrial land use zoning district are not permitted to exceed the following cumulative duration allowance standards: 75 dBA L_{max} equal to or greater than 30 minutes per hour, 80 dBA L_{max} equal to or greater than 15 minutes per hour, 85 dBA L_{max} equal to or greater than 5 minutes per hour, 90 dBA L_{max} equal to or greater than 1 minute per hour, 95 dBA L_{max} less than 1 minute per hour.

The County further restricts operating or permitting the operation of any device that creates vibration that is above the vibration perception threshold (sensation by touch or visual observation of moving objects or a measured motion velocity of 0.01 in/sec over the range of 1 to 100 hertz) of any individual at or beyond the property boundary of the source if on private property, or at 150 feet from the source if on a public space or public right-of-way.

The collection of solid waste is exempt from restrictions. The noise from collection activities is regulated by the Stanislaus County refuse ordinance. Noise not covered by the Stanislaus County refuse ordinance is not exempted from the requirements of this chapter.

Impact Analysis

Short-Term Construction Noise Impacts

Less than significant impact with mitigation incorporated. The proposed project will include site improvements, including construction of a new truck washing facility, new pipeline installation, and waste water infrastructure improvements. The installation of these uses will require the temporary operation of heavy construction equipment on the project site.

Two types of short-term noise impacts would occur during site preparation and project construction. The first type would result from the increase in traffic flow on local streets, associated with the transport of workers, equipment, and materials to and from the project site.

The transport of workers and construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. Because workers and construction equipment would use existing routes, noise from passing trucks would be similar to existing vehicle-generated noise on these local roadways. For this reason, short-term intermittent noise from trucks would be minor when averaged over a longer time period and would not be expected to exceed existing peak noise levels in the project vicinity. Therefore, short-term construction-related noise associated with worker and equipment transport to the proposed project site would result in a less than significant impact on receptors along the access routes leading to site.

The second type of short-term noise impact is related to noise generated during site-preparation, grading, and construction on-site. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on-site. Therefore, the noise levels vary as construction progresses. Despite the variety in the types and sizes of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase.

The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery and compacting equipment, such as bulldozers, draglines, backhoes, front loaders, roller compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three or four minutes at lower power settings.

A characteristic of noise is that each doubling of the sound sources with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst case combined noise level during the loudest phase of construction, the site preparation phase, would be 90 dBA L_{max} at a distance of 50 feet from an active construction area.

The County permits the operation of construction equipment between the hours of 7:00 a.m. and 7:00 p.m., where noise levels do not exceed 75 dBA L_{dn} at or beyond the property line of any property where a dwelling unit is located.

The closest noise-sensitive land uses to the east of the project site is a residential land use on Gaffery Road. The closest residential building is located approximately 410 feet from the proposed east storage pond waste water improvement footprint. At this distance this residential home may be exposed to noise levels ranging up to 72 dBA L_{max} intermittently when multiple pieces of heavy construction operate simultaneously at the portion of the project site nearest this home. These noise levels represent the worst-case noise levels. Hourly or daily average construction noise levels would be much lower as equipment would not all operate simultaneously at full power and the noise levels would be reduced by distance attenuation as the equipment operates at locations further into the project site. In addition, these maximum noise levels would occur for less than a cumulative minute within an typical work day and would therefore result in noise levels well below the County's threshold of 75 dBA L_{dn} as measured at the nearest residential property.

The closest noise-sensitive land uses to the west of the project site are rural residential land uses on South Koster Road. The closest construction activity to this receptor would be construction of the berm along the northern project property line. The nearest residential building is located approximately 950 feet from the construction footprint of the perimeter berm. Thus, maximum noise levels from construction activities could range up to approximately 64 dBA L_{max} when operation of heavy construction equipment occurs at the portion of the project site nearest these homes. Therefore, similar to the discussion above, noise levels from construction activities, as measured at the residential land uses west of the project site, would be well below the City's threshold of 75 dBA L_{dn}.

While these single event noise exposure levels could potentially result in intermittent noise nuisance from project construction activity, the effect on longer-term (hourly or daily) ambient noise levels would be small. In addition, compliance with the County's permissible hours of noise producing construction activities would further reduce the potential for sleep disturbance or annoyance at the nearest off-site sensitive receptors. Therefore, implementation of the best management noise reduction techniques and practices, as well as compliance with the stated permissible hours of noise producing construction activities included in MM NOI-1 would reduce any potential construction related noise impacts to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-1 Implementation of the following multi-part mitigation measure is required to reduce potential construction period noise impacts:

- The construction contractor shall ensure that all construction equipment have appropriate sound muffling devices, which are properly maintained and used at all times such equipment is in operation.
- The construction contractor shall ensure that all internal combustion-engine-driven equipment is equipped with mufflers that are in good operating condition and appropriate for the equipment.
- The construction contractor shall ensure that "quiet" models of air compressors and other stationary construction equipment are utilized where such technology exists.
- The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
- The construction contractor shall prohibit unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes).
- All noise producing construction activities, including deliveries of materials and warmup of equipment shall be limited to the hours of 7:00 a.m. and 7:00 p.m. daily.

Level of Significance After Mitigation

Less than significant impact.

Long-Term Operational Noise Impacts

Less than significant impact. According to the County Code, noise sources such as local industries or other stationary noise sources, must not exceed the maximum allowable noise exposure for stationary noise sources performance standards at the property line of the receiving land use. The project would result in a significant impact if it created noise levels exceeding 55 dBA L_{eq} from 7:00 a.m. to 10:00 p.m. and 45 dBA L_{eq} from 10:00 p.m. to 7:00 a.m. daily as measured at a receiving noise sensitive land use. An impact would also occur if the project created noise levels exceeding 75 dBA L_{max} from 7:00 a.m. to 10:00 p.m. or 65 dBA L_{max} from 10:00 p.m. to 7:00 a.m. daily as measured at a receiving property within an industrial zone. In addition, an impact would occur if the project exceeded 75 dBA L_{max} between 7:00 a.m. and 9:59 p.m., or exceeded 75 dBA L_{max} between 10:00 p.m. and 6:59 a.m. as measured at a receiving property within an industrial zone.

The proposed project would include primarily two new stationary noise sources, including a new truck washing facility and an aerated static pile system for composting production. The proposed project is not anticipated to result in increased vehicle trips over existing conditions, therefore traffic noise levels are anticipated to remain the same with implementation of the project. Potential impacts of the new stationary noise sources are analyzed below.

The closest residential receptor to the east is located approximately 1,520 feet from the proposed truck washing facility. The closest residential receptor to the west is located approximately 2,160 feet from the proposed truck wash area. Activities at the truck washing facility are not anticipated to generate high noise levels, however, there may be occasional slamming of doors or tail gates that could occur at this location which could generate noise levels from 70 to 85 dBA L_{max} as measured at 50 feet. Therefore, the closest residential receptor, located east of the project site, could experience noise levels from periodic truck wash activity ranging from 34 dBA to 49 dBA L_{max}. These noise levels are well below the existing maximum noise levels measured at location ST-2 of 94 dBA L_{max}. In addition, these noise levels are well below the County's noise standard of 75 dBA L_{max} as measured at a receiving property line.

The closest residential receptor to the proposed aerated static pile system is located to the east, approximately 1,140 feet from the nearest border of the area where the aerated static pile system will be piloted. The loudest noise source from this system would be the operation of the aeration fan. According to specifications for these types of systems, the sound power level (L_w) of up to 107 dB re 10^{-12} watts for the lower Octave bands. At a distance of 1,140 feet and assuming continual steady operation over a period of time, this sound power level would attenuate to below 35 dBA L_{eq} in terms of sound pressure level. These noise levels are well below the existing average noise levels measured at location ST-2 (the location nearest this receptor) of 73.1 dBA L_{eq}. In addition, these noise levels are well below the County's lowest noise performance standard of 45 dBA L_{eq} as measured at a receiving property line.

Therefore, project noise impacts from new stationary noise sources, including new truck washing facility and new aerated static pile systems, are less than significant.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact. Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings. When assessing annoyance from groundborne noise, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 micro-inch per second. To distinguish vibration levels from noise levels, the unit is written as "VdB." Human perception to vibration starts at levels as low as 67 VdB and sometimes lower. Annoyance due to vibration in residential settings starts at approximately 70 VdB. Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. Construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). Typical vibration source levels from construction equipment are shown in Table 5.

Table 5: Vibration Levels of Construction Equipment

Construction Equipment	PPV at 25 Feet (inches/second)	RMS Velocity in Decibels (VdB) at 25 Feet
Water Trucks	0.001	57
Scraper	0.002	58
Bulldozer—small	0.003	58
Jackhammer	0.035	79
Concrete Mixer	0.046	81
Concrete Pump	0.046	81
Paver	0.046	81
Pickup Truck	0.046	81
Auger Drill Rig	0.051	82
Backhoe	0.051	82
Crane (Mobile)	0.051	82
Excavator	0.051	82
Grader	0.051	82
Loader	0.051	82
Loaded Trucks	0.076	86
Bulldozer—Large	0.089	87
Caisson drilling	0.089	87
Vibratory Roller (small)	0.101	88

Table 5 (cont.): Vibration Levels of Construction Equipment

Construction Equipment	PPV at 25 Feet (inches/second)	RMS Velocity in Decibels (VdB) at 25 Feet
Compactor	0.138	90
Clam shovel drop	0.202	94
Vibratory Roller (large)	0.210	94
Pile Driver (impact-typical)	0.644	104
Pile Driver (impact-upper range)	1.518	112
Source: Compilation of scientific and academic literature, generated by FTA and FHWA.		

Propagation of vibration through soil can be calculated using the vibration reference equation of:

*PPV= PPV ref * (25/D)^n (in/sec)*

Where:

PPV = reference measurement at 25 feet from vibration source
D = distance from equipment to property line
N = vibration attenuation rate through ground

According to Chapter 12 of the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment manual (2006), an "n" value of 1.5 is recommended to calculate vibration propagation through typical soil conditions.

The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment document (FTA 2006). The FTA guidelines include thresholds for construction vibration impacts for various structural categories as shown in Table 6.

Table 6: Federal Transit Administration Construction Vibration Impact Criteria

Building Category	PPV (in/sec)	Approximate VdB
I. Reinforced—Concrete, Steel or Timber (no plaster)	0.5	102
II. Engineered Concrete and Masonry (no plaster)	0.3	98
III. Non Engineer Timber and Masonry Buildings	0.2	94
IV. Buildings Extremely Susceptible to Vibration Damage	0.12	90
Source: FTA 2006.		

Impact Analysis

A significant impact would occur if the proposed project would operate any device that creates vibration that is above the vibration perception threshold (sensation by touch or visual observation

of moving objects or a measured motion velocity of 0.01 in/sec over the range of 1 to 100 hertz) of any individual at or beyond the property boundary of the source if on private property. In addition, construction operations that would result in vibration levels above the FTA's construction vibration impact criteria would also be considered a significant impact.

Short-Term Construction Vibration Impacts

Less than significant impact. Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of a construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels.

During development of the proposed project, construction equipment such as graders, loaders backhoes, and bulldozers would operate over 410 feet from the closest sensitive receptor located west of the project site. At this distance, all groundborne vibration levels from operation of eve the heaviest construction equipment on the project site would attenuate to approximately 0.003 PPV, well below the FTA vibration damage impact criteria of 0.2 PPV for buildings of non-engineered timber or masonry construction. In addition, these vibration levels are well below the County's vibration perception threshold of 0.01 PPV.

Therefore, construction related ground-borne vibration impacts would be less-than-significant with implementation of the proposed project.

Operational Vibration Impacts

Less than significant impact. Implementation of the project would not include any new permanent sources that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the project vicinity. Existing operations include large truck haul trips that access the project site. As shown in Table 8, vibration levels from a loaded truck can range up to 0.076 PPV at 25 feet. The nearest receptor is the residential land use east of the project site, located approximately 215 feet east of the edge of the project's existing access driveway. At this distance, vibration levels from a passing loaded truck could range up to approximately 0.003 PPV. This is well below the County's threshold of 0.01 PPV.

Therefore, operation-related groundborne vibration impacts on existing off-site land uses would be considered less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Impact Analysis

Less than significant impact. A significant impact would occur if the project would cause the L_{dn} at noise sensitive uses to increase by 3 dBA or more and exceed the "normal acceptable" level, cause the L_{dn} at noise-sensitive uses to increase 5 dBA or more and remain "normal acceptable," or cause new noise levels to exceed the noise performance standards of the County Code.

The proposed project would include primarily two new stationary noise sources, including a new truck washing facility and an aerated static pile system for composting production. The proposed project is not anticipated to result in increased vehicle trips over existing conditions, therefore traffic noise levels are anticipated to remain the same with implementation of the project. As was shown in the long-term operational impact discussion under Section a) above, operational noise levels of the new stationary noise sources associated with the proposed project would not result in noise levels above existing measured ambient noise levels as measured at the nearest residential receptors in the project vicinity. In addition, these operational noise levels would not exceed the noise performance standards of the Stanislaus County Code. Therefore, implementation of the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Therefore, project operations would result in a less than significant noise impact on off-site sensitive receptors.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Impact Analysis

Less than significant impact with mitigation incorporated. Construction noise impacts were analyzed in the Section a) discussion above. As is shown in this discussion, the closest off-site residential structure is located east of the project site approximately 410 feet from proposed east storage pond construction footprint. At this distance, construction noise levels at the exterior façade of this building would be expected to range up to 72 dBA L_{max} intermittently during site preparation when individual pieces of heavy construction equipment operate simultaneously.

Although there would be a relatively high single event noise exposure potential causing intermittent noise nuisance, the effect on longer-term (hourly or daily) ambient noise levels would be small. In addition, compliance with the County's permissible hours of noise producing construction activities would further reduce the potential for sleep disturbance or annoyance at the nearest off-site sensitive receptors. Therefore, implementation of the best management noise reduction techniques and practices, as well as compliance with the stated permissible hours of noise producing construction activities included in MM NOI-1 would reduce any potential construction related noise impacts to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement MM NOI-1.

Level of Significance After Mitigation

Less than significant impact.

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?

Less than significant impact. The nearest airport to the project site is New Jerusalem Airport, located approximately 5 miles northeast of the project site. Because of the distance from and orientation of the airport runways, the project site is located well outside of the 55 dBA CNEL airport noise contours. Therefore, impacts associated with public airport noise would be less than significant.

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?

No impact. The project site is not located within the vicinity of a private airstrip. Therefore, no impacts associated with private airstrip noise would occur.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
13. Population and Housing *Would the project:*				
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Evaluation

Setting

The most recent population for Stanislaus County in 2015 was 538,388 people living in the County, [26] and is projected to increase to 764,060 persons by 2040, at an approximate increase rate of 1.118 percent per year between 2015 and 2040.[27] The total amount of housing units in the County in 2015 was 188,068, and an additional 21,330 homes required for the population growth between 2014 and 2023, at a rate of approximately 1.1 percent increase per year.[28] The Stanislaus County 2010 Housing Element noted that in 2005, there were 207,397 existing jobs in the County, and a projected employment growth to 289,461 by 2035, with an approximate 1.1 percent increase per year from 2005 to 2030.

The most recent population for San Joaquin County in 2015 was 726,106,[29] and projected to increase to 1,205,198 persons by the year 2030, at a rate of approximately 2.65 percent per year from 2015 to 2030.[30] The San Joaquin General Plan Draft Environmental Impact Report (DEIR) noted that in 2008, there were 220,685 existing jobs in the County, with a projected employment growth to 271,685 by 2035, at a rate of approximately 1.1 percent increase per year between 2005 and 2030.

[26] United States Census Bureau. Website: http://www.census.gov/quickfacts/table/PST045215/06099. Accessed August 2, 2016.
[27] Stanislaus County Housing Element. Website: http://www.stancounty.com/planning/pl/gp/gp-chapter6-housing-element.pdf. Accessed August 2, 2016.
[28] Stanislaus County Regional Housing Needs Plan. Website: http://www.stancog.org/pdf/blueprint/2014/rhna.pdf. Accessed August 2, 2016
[29] United States Census Bureau. Website: http://www.census.gov/quickfacts/table/PST045215/06077. Accessed August 2, 2016
[30] San Joaquin County Housing Element. Website: http://www.sjgov.org/commdev/cgi-bin/cdyn.exe/handouts-neighpresv_HousingElement?grp=handouts-neighpresv&obj=HousingElement. Accessed August 2, 2016.

Would the project:

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)?

No impact. The proposed project does not propose the construction of new housing or infrastructure that would induce substantial population growth. The project will involve the continued operation of a composting facility, and will not require any additional employees who may be drawn to the project area. During the construction period, construction workers will be temporarily at the site, as they will be drawn from the local labor pool, and will move onto other projects after buildout is completed. Therefore, no impact to population growth would occur.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No impact. The proposed site plans do not call for the displacement of existing housing, as none currently exists on the project site. The project site will retain its land use and zoning designations, and will not influence surrounding businesses to displace housing. As such, the proposed project will have no impact on the displacement of existing housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No impact. As noted above, project implementation does not call for the displacement of existing housing, as there is none located on the project site. As such, substantial numbers of people will not be displaced, replacement housing will not be required, and no impacts will occur.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
14. Public Services *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Environmental Evaluation

Setting

Fire protection services in Stanislaus County are provided by a mix of municipal agencies, fire protection districts, and various forms of state fire protection. Stanislaus County is served by six municipal fire departments, which are funded through general fund revenues. Additionally, there are 14 special districts providing fire protection services[31]. The project site would be served by the West Stanislaus Fire Protection District (WSFPD). There are 85 volunteer fire fighters that provide fire protection and Emergency Medical Services (EMS). There are six staff members as follows: Interim Fire Chief, Division Chief of Prevention & Maintenance, Acting Division Chief, Fire Prevention Specialist, Administrative Manager, and an Administrative Assistant.[32] There are currently seven active Fire Stations within the WSFPD. The closest Fire Station is Fire Station 4 located at 3926 River Road, approximately 6.1 miles east of the project site. There are no fire protection response times listed in the Stanislaus County General Plan or the General Plan Environmental Impact Report (EIR).

The Stanislaus County Sherriff's Department (SCSD) provides police services in Stanislaus County. The Sherriff's Department is administered by a command staff including a Sheriff and Undersheriff and three captains presiding over three divisions: Adult Detention, Operations, and Administration.[33] The Adult Detention Division is responsible for the custody of inmates, alternative work programs, central kitchen and laundry, Court Security and Civil. The Operations Division is made up of Patrol and Specialty Teams, Detectives, Records, Property and Evidence, Community Service Officers, and Contract Cities[34]. The Operations Division maintains principal jurisdiction for all unincorporated

[31] Stanislaus County General Plan and Airport Land Use Compatibility Plan Update Draft EIR, 3.14-7.
[32] West Stanislaus Fire Protection District. "Staff." Website: http://www.weststanfire.org/board-of-directors/fire-staff/. Accessed September 6, 2016,
[33] Stanislaus County Sheriff's Department. "Organizational Chart." Website: https://www.scsdonline.com/organizational-chart/org-chart.html. Accessed September 7, 2016.
[34] Stanislaus County Sheriff's Department Policy Manual, page 16.

areas, which covers an area of approximately 1,521 square miles and houses a population of more than 200,000.[35] The SCSD employs over 600 people and is headquartered at 250 E Hackett Road, approximately 18.5 miles southeast of the project site. There are no police protection response times listed in the General Plan or the General Plan EIR.

Stanislaus County Office of Education supervises 26 public school districts within Stanislaus County. The Patterson Joint Unified School District serves the project site. Within the Patterson Joint Unified School District, there are four elementary schools, one middle school, one K-8 school, two high schools, and one special education center. The nearest school is Grayson Elementary School located at 310 Howard Street, approximately 8.2 miles southeast of the project site[36].

Stanislaus County provides and maintains developed parkland and open space to serve its residents. Stanislaus County Parks and Recreation Department is responsible for the development, operation, and maintenance of all park and recreational facilities in unincorporated Stanislaus County. The Department employs 20 people full-time and consists of four divisions: Administration, Community Parks/County Centers, Woodward Reservoir and Modesto Reservoir. The County owns 22 neighborhood/community serving parklands, five regional parks, and five fishing access sites.[37] Park facilities vary in size and amenities. There are two parks equidistant from the project site: Leroy F. Fitzsimmons Memorial Park located on the corner of Amelia and Stakes Streets, approximately 9.2 miles southeast and United Community Center and Park located at the corner of Laird and Mary Street, approximately 9.2 miles southeast. The Leroy F. Fitzsimmons Memorial Park has a basketball court, picnic shelter, tables, and playground equipment and United Community Center and Park has meeting space for local events, recreational programs, after-school, and senior programs. The park includes play equipment, amphitheater lawn area, barbeques, picnic tables, basketball courts, and informal play areas[38].

Under the Quimby Act, California cities and counties are authorized to pass ordinances requiring that developers set aside land, donate conservation easements or pay fees for park acquisition. Stanislaus County has adopted a Quimby Act provision in the general plan that would allow for the collection of a fee or dedication of land for park and recreational facilities as a condition of subdivision approval[39]. The Land Use Element of the General Plan sets a ratio of three net acres of developed neighborhood parks for every 1,000 residents. There are roughly 138 acres of neighborhood parkland throughout Stanislaus County.

Libraries are another public service that the County provides its residents. The Stanislaus County Library is funded by a distinct portion of sales tax. There are 13 libraries within the County system with varying amenities including access to over 770,000 books, magazines, newspapers, audio books, videos, and DVDs. The closest library is Patterson Public Library located at 46 North Salado, approximately 14.5 miles southeast of the project site.

[35] Stanislaus County General Plan and Airport Land Use Compatibility Plan Update Draft EIR,3.14-10.
[36] Patterson Unified School District. "Schools," Website: http://www.patterson.k12.ca.us/schools. Accessed September 7, 2016.
[37] Stanislaus County. "County Parks & Facilities." Accessed September 7, 2016. Website: http://www.stancounty.com/parks/.
[38] Ibid.
[39] Stanislaus County General Plan and Airport Land Use Compatibility Plan Update Draft EIR, 3.15-7.

a) Fire protection?

Less than significant impact. The project would result in a significant environmental impact if new or physically altered fire protection facilities would need to be built to maintain acceptable service ratios, response times, or other performance objectives for fire protection. The Stanislaus County General Plan and the General Plan EIR (GPEIR) do not call out specific response times related to fire protection. This site was formerly known as the Grover Environmental Products Composting Facility and has been used for composting operations since 1991. The project proposes a reorganization of the facility and would not add more employees or additional nearby residents. The maximum number of employees is 65. Therefore, new or physically altered fire protection facilities would not need to be built, and impacts would be less than significant.

b) Police protection?

Less than significant impact. The project would result in a significant environmental impact if new or physically altered police protection facilities would need to be built to maintain acceptable service ratios, response times, or other performance objectives for police protection. The Stanislaus County General Plan and the GPEIR do not call out specific response times related to police protection. As mentioned in impact analysis 14(a), the site has been used for composting operations since 1991 and is not adding more employees or residents. The composting use that will be continued by the project is not a type of land use typically associated with calls for police service (as compared to retail or residential uses, for example). Therefore, new or physically altered police protection facilities would not need to be built. Impacts would be less than significant.

c) Schools?

No impact. The project would result in a significant environmental impact if new or physically altered public education facilities would need to be built to maintain acceptable performance objectives for public education. The project would not add new residents to Stanislaus County, as the site would maintain its current use as a composting facility and would not increase the number of employees. Since the project would not contribute to the increased student population of the County, no impacts would occur.

d) Parks?

No impact. The project would result in a significant environmental impact if new or physically altered parks would need to be built to maintain acceptable service ratios. As mentioned in impact analysis 14(d), the project would not add new residents to Stanislaus County. The project would not impact the park ratio set forth in the Stanislaus County GPEIR, and no impacts would occur.

e) Other public facilities?

No impact. The project would result in a significant environmental impact if new or physically altered library facilities would need to be built to maintain acceptable service ratios. As mentioned in impact analysis 14(d), the project would not add new residents to Stanislaus County. The project would not affect the adequacy of library facilities in the area. Since the project would not contribute to increased population, no impacts would occur.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
15. Recreation				
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Evaluation

Setting

Stanislaus County provides and maintains developed parkland, open space and recreational facilities to serve its residents. The County's Parks & Recreation Department is responsible for the development, operation, and maintenance of all County recreational facilities. The County provides a total of almost 17,000 acres of parkland, including 22 neighborhood/community-serving parks, five regional parks, and five fishing access sites with amenities including benches, pathways, playground, sports courts, public restrooms, and water fountains.[40] There are two parks equidistant from the project site: Leroy F. Fitzsimmons Memorial Park located on the corner of Amelia and Stakes Streets, approximately 9.2 miles southeast and United Community Center and Park located at the corner of Laird and Mary Street, approximately 9.2 miles southeast. The City also provides two community centers, one swimming pool, one organized youth camp, a regional water safety training center, archery events, and hunting. The closest community center is the United Community Center mentioned above.

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?

No impact. The project would result in a significant environmental impact if the project would 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. The project would not add new residents to Stanislaus County, as the site would maintain its current use as a composting facility and would not result in an increase in employees or nearby residents. The project would not affect the adequacy of existing neighborhood and regional parks or recreational

[40] Stanislaus County. "County Parks & Facilities." Accessed September 7, 2016. Website: http://www.stancounty.com/parks/facilities.shtm.

facilities in the area. Since the project would not cause substantial physical deterioration of the previously mentioned facilities or cause the physical deterioration to be accelerated, no impacts would occur.

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?

No impact. The project would result in a significant environmental impact if the project would require the construction or expansion of recreational facilities. The project would not include recreational facilities. As mentioned in impact analysis 15(a), the project would not add new residents to Stanislaus County and would not necessitate the construction or expansion of recreational facilities. Therefore, no impacts would occur.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
16. Transportation/Traffic *Would the project:*				
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Environmental Evaluation

A hierarchy of adequately sized roads provides access to facilitate the movement of people and goods throughout the County and maintain acceptable levels of service. Level of service (LOS) is a standard measure of traffic service along a roadway or at an intersection. It ranges from A to F, with LOS A being best and LOS F being worst. Relevant roadways near the project site include freeways, expressways, and locals. The freeways provide for the safe and efficient movement of large volumes of interregional, inter-city, and urban traffic at high-speeds. Interstate 5 is the only relevant freeway to the proposed project. SR-132 is classified as a Class B expressway since part of the route is an access-controlled road with traffic-controlled intersections at major roads. Gaffery road, which runs

along the southern boundary of the proposed project, is designated as a local road, providing access to facilities in the agricultural areas and abutting property.[41]

The Stanislaus County General Plan establishes goals, policies and implementation measures that ensure compatibility between land uses, infrastructure and transportation modes. In unincorporated areas of the County, two-lane highways and unsignalized intersections at a four way stop are common, thus maintaining adequate level of service (LOS) is crucial for the efficient movement of people and goods. The County strives to maintain a LOS C or better on all roadways.[42] Similarly, San Joaquin County has established an average daily traffic (ADT) threshold of LOS C and Policy TM-3.9 seeks to maintain and enforce LOS standards consistent with the San Joaquin Council of Governments (SJCOG) Congestion Management Program (CMP).[43]

The San Joaquin Council of Governments (SJCOG) serves as the Congestion Management Agency for the County and is responsible for the Regional Congestion Management Program (RCMP). SJCOG's RCMP applies to all the incorporated cities and the unincorporated area in the County. State statute requires that all state highways be designated as part of the RCMP roadway network. In addition, all new state highways and principal arterials must be included in the RCMP system.[44] SR-132 is part of the San Joaquin County CMP network, designated as a two-lane highway from I-5 to the County line.

Stanislaus Council of Governments (StanCOG) serves as the responsible agency to update and implement the Congestion Management Plans (CMP). The CMP analysis areas focus on the current network of the State Highway System and Principal Arterials. There are no CMP segments or intersections identified by StanCOG in the immediate vicinity of the project site.[45]

There are two entry and exit points to the site along Gaffery Road. Trucks access the Facility via Gaffery Road, typically taking one of the following routes: SR-132 East from Interstate 5 to South Koster Road, turning left onto Gaffery Road; SR-33 North, turning left onto Gaffery Road; SR-33 South to McCracken Road, turning right onto Gaffery Road. The Federal Highway Administration adopts standards and specifications for highway and street geometric design, which are established by the American Association of State Highway and Transportation Officials (AASHTO). AASHTO specifications, including turning radii, are outlined in A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011.[46] There is no public transit, bicycle or pedestrian facilities in the vicinity of the project site.

The nearest airport facility is New Jerusalem Airport, 5 miles north of the project site. Several other major airports identified in the Stanislaus General Plan (Modesto City-County Airport, Oakdale Municipal Airport and Crows Landing Air Facility) are 15 or more miles away from the site. The project site is not located within the established Airport Influence Zone of any of these airports.[47]

[41] Stanislaus County General Plan Circulation Element, page 2-7.
[42] Stanislaus County General Plan Circulation Element, page 2-3.
[43] San Joaquin County General Plan DEIR, page 4.D-25.
[44] San Joaquin Regional Congestion Management Program, Chapter 2 Regional Transportation System.
[45] StanCOG. 2009. Congestion Management Process, page 9.
[46] Federal Highway Administration. "2011 Green Book." Website: https://www.fhwa.dot.gov/design/standards/151112.cfm. Accessed September 23, 2016.
[47] Stanislaus County General Plan, Circulation Element, page 2-24.

Would the project:

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?

Less than significant impact. The project would not involve an increase in permitted capacity at the site, nor would it result in an increase in the number of employees on-site during the operation phase. Therefore, no increase in vehicle or truck trips is anticipated. While construction workers would travel to the site during the construction of proposed improvements, the number of workers would be relatively small and the increase in trips would be temporary, limited to the period of construction only. Therefore, there would not be a substantial increase in traffic over existing conditions with project implementation, and impacts related to conflicts with established performance measures for the local roadway system would be less than significant.

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?

Less than significant impact. As described above, the project would not result in a substantial increase in traffic over existing conditions. A relatively small and temporary increase in traffic could result during the construction of proposed improvements and some additional trips could be added to SR-132. However, this increase would be temporary and the number of trips would be minimal in relation to the average daily volume of traffic on this two-lane highway in the San Joaquin CMP network. There are no Stanislaus CMP roadways or intersections in the vicinity of the site. Therefore, impacts related to conflicts with a CMP would be less than significant.

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?

No impact. As previously mentioned in the project description, the nearest airport to the site is 5 miles to the north and the site is not located within an airport influence zone. Additionally, the improvements would all occur within the boundaries of the site. As such, the project would not affect air traffic patterns and there would be no associated impact.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant impact. The project would add landscaping at the entry and exit points on Gaffery Road but would not alter the design of project driveways or the public right of way. Site access has been designed in compliance with applicable County standards, including the provisions of the County Code to minimize the potential for roadway safety hazards to the maximum extent practicable. Therefore, associated impacts would be less than significant.

e) Result in inadequate emergency access?

Less than significant impact. Emergency access would be provided from both points of access via the entrance and exit on Gaffery Road. The main entrance would be designed to provide emergency vehicle access and turnaround clearance as required by County standards, including the provisions of the County Code. Compliance with applicable standards and regulations would ensure the project would not result in inadequate emergency access and impacts would be less than significant.

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?

Less than significant impact. There are no public transit, bicycle, or pedestrian facilities in the vicinity of the project site. As described above, other than the addition of landscaping, no modifications of the existing site driveways or public right of way are proposed. Therefore, associated impacts would be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
17. Utilities and Service Systems *Would the project:*				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☒	☐	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☐
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?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Environmental Evaluation

There are no public utilities in the community of Vernalis. Water is supplied by private wells and sewage is disposed of by private septic systems. The project site relies on groundwater supply and also has a 5 percent allotment from the Delta-Mendota Canal, which is equivalent to 21 acre-feet. Unlike other developments where wastewater is transferred to an off-site facility via utility infrastructure, this facility utilizes septic tanks and operates its own wastewater treatment process. Wastewater in this application refers to the water runoff from the compost windrows. The improved wastewater management system will consist of wastewater conveyance pipes, a low flow diversion structure, lined ponds, and lined treatment pond with associated facilities. In addition to the liner systems, each pond will have a pan lysimeter for leakage monitoring. Groundwater monitoring wells have been installed adjacent to the storage ponds.

The Central Valley Regional Water Quality Control Board (CVRWQCB) regulates wastewater discharges and administers General Orders.

Assembly Bill 1826 mandates that businesses recycle their organic waste depending on the amount of waste they generate per week. The law also requires local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses. Organic includes food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.[48]

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less than Significant Impact With Mitigation Incorporated. The existing operations at the project site currently do not meet the requirements for Water Quality Order 2015-0121-DWQ, General Waste Discharge Requirements for composting operations. The Central Valley Regional Water Quality Control Board is ordering Recology BVON to achieve full compliance with the Order by November 30, 2021. As a result, numerous improvements to the on-going operations of the facility are proposed as part of the project to achieve compliance. To control and manage discharges during construction activities, the project will implement MM HYD-1, which will require preparation of a SWPPP.

Implementation of MM HYD-1 would be required to reduce potential impacts during project construction to a less-than-significant level.

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?

Less than significant impact. The proposed project is a private compost facility that is served by existing septic systems, and does not utilize a wastewater treatment facility. The improvements and upgrades from the proposed project would not increase the capacity to process organic waste, nor change the amount of full time employees on-site. Therefore, impacts associated with the construction or expansion of wastewater treatment facilities would be less than significant.

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?

Less than significant impact. The project would incorporate new on-site stormwater drainage facilities, which would route stormwater to an on-site detention pond. The proposed project is subject to the requirements of the NPDES Permit adopted by the SWRCB. Additionally, as part of the NPDES process, the applicant must prepare a SWPPP according to the latest regulations. The SWPPP must include BMPs that, when implemented, prevent stormwater quality degradation to the extent practical by preventing sediments and other pollutants from leaving the project site. The storage

[48] CalRecycle Mandatory Commercial Organics Recycling, AB 1826 General Information.

ponds would prevent on-site drainage from flowing off-site, and would not have significant environmental effects on the site. The construction of on-site detention ponds and stormwater drainage facilities would comply with the standards and specifications outlined in Chapter 9 of the 2014 Public Works Standards and Specifications. Compliance with County regulations would ensure impact related to construction of new stormwater drainage facilities would be less than significant.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less than significant impact. The proposed improvements to the facility would not expand current groundwater entitlements. The number of full time employees would not change, nor the 2,000 tons per day receiving limit. A new potable water supply well would be drilled south of Gaffery Road and west of the existing maintenance shop on-site, which would provide water to the bathroom in the maintenance shop and the administrative office and visitor parking area. However, the new well would be subject to the application requirements outlined in Section 9.37.045 of the Stanislaus County Code, which require a demonstration that the proposed well will not constitute unsustainable extraction of groundwater. In addition, the new equipment wash would collect, filter and re-use wash water for use as process water, reducing the use of potable water. The construction of the storage basins and stormwater conveyance systems would help collect wastewater from windrows, which would be recirculated on-site as recycled water. Therefore, impacts are less than significant.

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?

Less than significant impact. As described above, an off-site wastewater treatment provider would not be required for the project. The proposed basins would be used to store wastewater from the site only, until reused as process water for composting. The storage ponds would not cause negative environmental effects. Each pond will have a pan lysimeter for leakage monitoring and an aeration system to control and prevent odors and mosquito harborage. Wastewater resulting from employee's use (e.g., bathroom and hand washing facilities) would be disposed via existing septic tanks, which would be emptied on a timely basis in accordance with the County Environmental Health Department requirements. Therefore, the project would have a less than significant impact on wastewater treatment capacity.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than significant impact. The proposed project is a full time composting facility and currently has 65 full time employees. Generation of solid waste from the project site would be minimal, and therefore would result in a less than significant impact. Employees and general administrative functions would generate a minor amount of trash which would require disposal. Overall, the project would result in a net reduction in the amount of solid waste sent to landfills due to the removal of compostable materials from the existing waste stream. This would result in additional

capacity at landfills utilized by Stanislaus County, and would result in a beneficial, less than significant impact.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less than significant impact. The proposed project would comply with Assembly Bill 1826—mandatory organics recycling. AB 1826 requires businesses to recycle their organic waste dependent on the amount of waste they generate per week. Local jurisdictions are also required to implement an organic waste recycling program to divert waste. The compost facility would be required to comply with CalRecycle regulations regarding composting operations found at Title 14, Chapter 3.1. Therefore, impacts will be less than significant.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
18. Mandatory Findings of Significance				
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?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Environmental Evaluation

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?

Less than significant impact with mitigation incorporated. The Project would involve the continued use of the site as a composting facility and the implementation of a range of process improvements and actions designed to reduce off-site nuisance impacts. With implementation of the proposed process improvements, the Project would reduce impacts such as odors, fugitive dust and airborne debris overtime; however, mitigation would be required to reduce potentially significant interim impacts to a less than significant level. While unlikely, there is the potential to uncover as yet undiscovered archeological, paleontological or human remains in the course of construction activities on-site and accordingly mitigation would be required avoid the accidental destruction or disturbance of previously undiscovered cultural resources.

In the event that compost windrows are permanently removed from the site, erosion control measures such as the planting of vegetation or agricultural crops to decrease would be required to reduce the risk of loss of soil by erosion to a less than significant level. Further mitigation would be required to address potential construction period noise impacts as well as to reduce potentially significant construction-related noise to a less than significant level. Overall, with implementation of these mitigation measures, the Project would not substantially degrade the quality of the environment and associated impacts would be less thanks significant.

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)?

Less than significant impact with mitigation incorporated. The Project would not involve an increase in permitted capacity at the site, nor would it result in an increase in the number of employees on-site during the operation phase, and, therefore, no substantial increase in population or vehicle and truck trips is anticipated. Further, the proposed use is consistent with the agricultural land use and zoning designations applicable to the site, and the Project would not result either directly or indirectly in the conversion of farmland to non-agricultural uses or induce unplanned growth. Potentially significant site-specific impacts to previously undiscovered archaeological, paleontological or cultural resources would be mitigated to a less than significant level with the implementation of Mitigation Measures CUL-1, CUL-2, and CU-3. Site-specific water quality impacts would be mitigated to less than significant levels with the implementation of Mitigation Measures HYDRO-1 and HYDRO-2, while soil erosion impacts in the event that windrows are permanently removed from the site would be reduced to a less than significant level with Mitigation Measure GEO-1. Additionally, potential off-site nuisance odor and air quality impacts would be reduced to a less than significant level with implementation of Mitigation Measures AIR-1, AIR-2, and AIR-3. Therefore, with mitigation, the Project's contribution to any associated cumulative impacts would be less than significant.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than significant impact with mitigation incorporated. Compliance with applicable existing regulations and implementation of recommended mitigation measures would ensure the Project would not result in substantial adverse effects on human beings, including affects related to air pollution, seismic and geologic hazards, hazardous materials, flooding and natural disasters, or noise and vibration. Therefore, impacts would be less than significant.

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