PROJECT REPORT

TO: ENVIRONMENTAL EVALUATION COMMITTEE **AGENDA DATE: October 10, 2019**

FROM: PLANNING & DEVELOPMENT SERVICES **AGENDA TIME 1:30 PM/ No. 2**

PROJECT TYPE: Conditional Use Permit #19-0007; Spreadco, Inc. SUPERVISOR DISTRICT #4

LOCATION: 1450 E Shank Road APN: 038-170-017-000

Brawley, CA 92227 PARCEL SIZE: +/- 59.90 acres

GENERAL PLAN (existing) Agriculture GENERAL PLAN (proposed) N/A

ZONE (existing) A-3 (Heavy Agricultural) ZONE (proposed) N/A

GENERAL PLAN FINDINGS ☒ CONSISTENT ☐ INCONSISTENT ☐ MAY BE/FINDINGS

PLANNING COMMISSION DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

PLANNING DIRECTORS DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

ENVIROMENTAL EVALUATION COMMITTEE DECISION: HEARING DATE: 10/10/2019

INITIAL STUDY: 19-0009

☐ NEGATIVE DECLARATION ☐ MITIGATED NEG. DECLARATION ☐ EIR

DEPARTMENTAL REPORTS / APPROVALS:

PUBLIC WORKS	☐ NONE	☒ ATTACHED
AG	☒ NONE	☐ ATTACHED
APCD	☐ NONE	☒ ATTACHED
E.H.S.	☒ NONE	☐ ATTACHED
FIRE / OES	☒ NONE	☐ ATTACHED
SHERIFF.	☒ NONE	☐ ATTACHED
OTHER	Torres-Martinez Desert Cahuilla Indians	

REQUESTED ACTION:

(See Attached)

☐ NEGATIVE DECLARATION
☐ MITIGATED NEGATIVE DECLARATION

Initial Study & Environmental Analysis
For:

Conditional Use Permit #19-0007
Spreadco. Inc.

Prepared By:

COUNTY OF IMPERIAL
Planning & Development Services Department
801 Main Street
El Centro, CA 92243
(442) 265-1736
www.icpds.com

October, 2019

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SECTION 1
INTRODUCTION

A. PURPOSE

This document is a ☐ policy-level, ☒ project level Initial Study for evaluation of potential environmental impacts resulting with the proposed Conditional Use Permit #19-0007 (Refer to Exhibit "A" & "B"). For purposes of this document, the Conditional Use Permit will be called the "proposed project".

B. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REQUIREMENTS AND THE IMPERIAL COUNTY'S GUIDELINES FOR IMPLEMENTING CEQA

As defined by Section 15063 of the State California Environmental Quality Act (CEQA) Guidelines and Section 7 of the County's "CEQA Regulations Guidelines for the Implementation of CEQA, as amended", an **Initial Study** is prepared primarily to provide the Lead Agency with information to use as the basis for determining whether an Environmental Impact Report (EIR), Negative Declaration, or Mitigated Negative Declaration would be appropriate for providing the necessary environmental documentation and clearance for any proposed project.

☐ According to Section 15065, an **EIR** is deemed appropriate for a particular proposal if the following conditions occur:

- The proposal has the potential to substantially degrade quality of the environment.
- The proposal has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The proposal has possible environmental effects that are individually limited but cumulatively considerable.
- The proposal could cause direct or indirect adverse effects on human beings.

☐ According to Section 15070(a), a **Negative Declaration** is deemed appropriate if the proposal would not result in any significant effect on the environment.

☐ According to Section 15070(b), a **Mitigated Negative Declaration** is deemed appropriate if it is determined that though a proposal could result in a significant effect, mitigation measures are available to reduce these significant effects to insignificant levels.

This Initial Study has determined that the proposed applications will not result in any potentially significant environmental impacts and therefore, a Negative Declaration is deemed as the appropriate document to provide necessary environmental evaluations and clearance as identified hereinafter.

This Initial Study and Negative Declaration are prepared in conformance with the California Environmental Quality Act of 1970, as amended (Public Resources Code, Section 21000 et. seq.); Section 15070 of the State & County of Imperial's Guidelines for Implementation of the California Environmental Quality Act of 1970, as amended (California Code of Regulations, Title 14, Chapter 3, Section 15000, et. seq.); applicable requirements of the County of Imperial; and the regulations, requirements, and procedures of any other responsible public agency or an agency with jurisdiction by law.

Pursuant to the County of Imperial Guidelines for Implementing CEQA, depending on the project scope, the County

of Imperial Board of Supervisors, Planning Commission and/or Planning Director is designated the Lead Agency, in accordance with Section 15050 of the CEQA Guidelines. The Lead Agency is the public agency which has the principal responsibility for approving the necessary environmental clearances and analyses for any project in the County.

C. INTENDED USES OF INITIAL STUDY AND NEGATIVE DECLARATION

This Initial Study and Negative Declaration are informational documents which are intended to inform County of Imperial decision makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed applications. The environmental review process has been established to enable public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any potentially adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency and other responsible public agencies must balance adverse environmental effects against other public objectives, including economic and social goals.

The Initial Study and Negative Declaration, prepared for the project will be circulated for a period of 20 days (*30-days if submitted to the State Clearinghouse for a project of area-wide significance*) for public and agency review and comments. At the conclusion, if comments are received, the County Planning & Development Services Department will prepare a document entitled "Responses to Comments" which will be forwarded to any commenting entity and be made part of the record within 10-days of any project consideration.

D. CONTENTS OF INITIAL STUDY & NEGATIVE DECLARATION

This Initial Study is organized to facilitate a basic understanding of the existing setting and environmental implications of the proposed applications.

SECTION 1

I. INTRODUCTION presents an introduction to the entire report. This section discusses the environmental process, scope of environmental review, and incorporation by reference documents.

SECTION 2

II. ENVIRONMENTAL CHECKLIST FORM contains the County's Environmental Checklist Form. The checklist form presents results of the environmental evaluation for the proposed applications and those issue areas that would have either a significant impact, potentially significant impact, or no impact.

PROJECT SUMMARY, LOCATION AND EVIRONMENTAL SETTINGS describes the proposed project entitlements and required applications. A description of discretionary approvals and permits required for project implementation is also included. It also identifies the location of the project and a general description of the surrounding environmental settings.

ENVIRONMENTAL ANALYSIS evaluates each response provided in the environmental checklist form. Each response checked in the checklist form is discussed and supported with sufficient data and analysis as necessary. As appropriate, each response discussion describes and identifies specific impacts anticipated with project implementation.

SECTION 3

III. MANDATORY FINDINGS presents Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

IV. PERSONS AND ORGANIZATIONS CONSULTED identifies those persons consulted and involved in preparation of this Initial Study and Negative Declaration.

V. REFERENCES lists bibliographical materials used in preparation of this document.

VI. NEGATIVE DECLARATION – COUNTY OF IMPERIAL

VII. FINDINGS

SECTION 4

VIII. RESPONSE TO COMMENTS (IF ANY)

IX. MITIGATION MONITORING & REPORTING PROGRAM (MMRP) (IF ANY)

E. SCOPE OF ENVIRONMENTAL ANALYSIS

For evaluation of environmental impacts, each question from the Environmental Checklist Form is summarized and responses are provided according to the analysis undertaken as part of the Initial Study. Impacts and effects will be evaluated and quantified, when appropriate. To each question, there are four possible responses, including:

1. **No Impact:** A "No Impact" response is adequately supported if the impact simply does not apply to the proposed applications.

2. **Less Than Significant Impact:** The proposed applications will have the potential to impact the environment. These impacts, however, will be less than significant; no additional analysis is required.

3. **Less Than Significant With Mitigation Incorporated:** This applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact".

4. **Potentially Significant Impact:** The proposed applications could have impacts that are considered significant. Additional analyses and possibly an EIR could be required to identify mitigation measures that could reduce these impacts to less than significant levels.

F. POLICY-LEVEL or PROJECT LEVEL ENVIRONMENTAL ANALYSIS

This Initial Study and Negative Declaration will be conducted under a ☐ policy-level, ☒ project level analysis. Regarding mitigation measures, it is not the intent of this document to "overlap" or restate conditions of approval that are commonly established for future known projects or the proposed applications. Additionally, those other standard requirements and regulations that any development must comply with, that are outside the County's jurisdiction, are also not considered mitigation measures and therefore, will not be identified in this document.

G. TIERED DOCUMENTS AND INCORPORATION BY REFERENCE

Information, findings, and conclusions contained in this document are based on incorporation by reference of tiered documentation, which are discussed in the following section.

1. Tiered Documents

As permitted in Section 15152(a) of the CEQA Guidelines, information and discussions from other documents can be included into this document. Tiering is defined as follows:

"Tiering refers to using the analysis of general matters contained in a broader EIR (such as the one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project."

Tiering also allows this document to comply with Section 15152(b) of the CEQA Guidelines, which discourages redundant analyses, as follows:

"Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including the general plans, zoning changes, and development projects. This approach can eliminate repetitive discussion of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration."

Further, Section 15152(d) of the CEQA Guidelines states:

"Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:

(1) Were not examined as significant effects on the environment in the prior EIR; or

(2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means."

2. Incorporation By Reference

Incorporation by reference is a procedure for reducing the size of EIRs/MND and is most appropriate for including long, descriptive, or technical materials that provide general background information, but do not contribute directly to the specific analysis of the project itself. This procedure is particularly useful when an EIR or Negative Declaration relies on a broadly-drafted EIR for its evaluation of cumulative impacts of related projects (*Las Virgenes Homeowners Federation v. County of Los Angeles* [1986, 177 Ca.3d 300]). If an EIR or Negative Declaration relies on information from a supporting study that is available to the public, the EIR or Negative Declaration cannot be deemed unsupported by evidence or analysis (*San Francisco Ecology Center v. City and County of San Francisco* [1975, 48 Ca.3d 584, 595]). This document incorporates by reference appropriate information from the "Final Environmental Impact Report and Environmental Assessment for the "County of Imperial General Plan EIR" prepared by Brian F. Mooney Associates in 1993 and updates.

When an EIR or Negative Declaration incorporates a document by reference, the incorporation must comply with Section 15150 of the CEQA Guidelines as follows:

- The incorporated document must be available to the public or be a matter of public record (CEQA Guidelines Section 15150[a]). The General Plan EIR and updates are available, along with this document, at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.

- This document must be available for inspection by the public at an office of the lead agency (CEQA Guidelines Section 15150[b]). These documents are available at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.

- These documents must summarize the portion of the document being incorporated by reference or briefly describe information that cannot be summarized. Furthermore, these documents must describe the relationship between the incorporated information and the analysis in the tiered documents (CEQA Guidelines Section 15150[c]). As discussed above, the tiered EIRs address the entire project site and provide background and inventory information and data which apply to the project site. Incorporated information and/or data will be cited in the appropriate sections.

- These documents must include the State identification number of the incorporated documents (CEQA Guidelines Section 15150[d]). The State Clearinghouse Number for the County of Imperial General Plan EIR is SCH #93011023.

- The material to be incorporated in this document will include general background information (CEQA Guidelines Section 15150[f]). This has been previously discussed in this document.

II. Environmental Checklist

1. **Project Title**: Conditional Use Permit #19-0007, SpreadCo. Inc.
2. **Lead Agency**: Imperial County Planning & Development Services Department
3. **Contact person and phone number**: Mariela Moran, Planner I, (442)265-1736, ext. 1747
4. **Address**: 801 Main Street, El Centro CA, 92243
5. **E-mail**: marielamoran@co.imperial.ca.us
6. **Project location**: 1450 E. Shank Road, Brawley, CA 92227
7. **Project sponsor's name and address**: Spreadco Inc.,
   P.O. Box 1400
   Brawley, CA 92227
8. **General Plan designation**: Agriculture
9. **Zoning**: A-3 (Heavy Agriculture)

10. **Description of project**: Applicant is proposing to expand 12.82 acres of the existing composting facilities under Conditional Use Permit (CUP)#12-0018. The utilized area of the existing composting facilities is 40.67 acres, the proposed 12.82 acres expansion would total 53.49 acres. Additionally, the proposed project increases the composting operations an additional 30,000 tons annually, generating a total finished compost of 60,000 tons annually.

11. **Surrounding land uses and setting**: The proposed project site is located under APN 038-170-017, and is surrounded by agricultural parcels to the North, East and South; and existing cattle feed lots to the West. The existing feedlot corrals cover an area of 22.41 acres, and it is developed with shade structures and bunkers for cattle. The corrals extend in a diagonal alignment from Shank Road to Farr Road. The Magnolia Lateral is located on the South, the Mesquite Lateral is located on the North, and a private concrete ditch is located to the East. Access to the parcel is through a dirt road on Shank Road on the South, and Hastain Road on the East.

12. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement.): Planning Commission, Imperial County Public Works Department, Imperial County Fire Department, Imperial County Air Pollution Control District (ICAPCD), Imperial Irrigation District (IID).

13. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1?

The AB 52 Notice of Opportunity to consult on the proposed project letter was mailed via certified mail on May 06, 2019 to President Jordan D. Joaquin, from the Quechan Indian Tribe and Michael Mirelez, Culture Resource Coordinator of Torres Martinez Desert Cahuilla Indian. On June 6, 2019, we received a letter from the Torres Martinez Desert Cahuila Indians requesting copies of all cultural reports, formal Government to Government Consultation and Tribal Monitoring for all initial ground disturbing activities. On September 10, 2019 we received a Cultural Resources Inventory Report, no evidence of cultural resources was found. A copy was provided to the Torres Martinez Desert Cahuila Indians, based on the Cultural report, Mr. Michael Mirelez stated per phone conversation on September 24, 2019 that no further requirements were requested, nor formal Government Consultation and Tribal Monitoring.

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	☐	Energy
☐	Geology /Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology / Water Quality	☐	Land Use / Planning	☐	Mineral Resources
☐	Noise	☐	Population / Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

ENVIRONMENTAL EVALUATION COMMITTEE (EEC) DETERMINATION

After Review of the Initial Study, the Environmental Evaluation Committee has:

☐ Found that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ Found 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.

☐ Found that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ Found that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Found 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.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE DE MINIMIS IMPACT FINDING: ☐ Yes ☐ No

EEC VOTES	YES	NO	ABSENT
PUBLIC WORKS	☐	☐	☐
ENVIRONMENTAL HEALTH SVCS	☐	☐	☐
OFFICE EMERGENCY SERVICES	☐	☐	☐
APCD	☐	☐	☐
AG	☐	☐	☐
SHERIFF DEPARTMENT	☐	☐	☐
ICPDS	☐	☐	☐

Jim Minnick, Director of Planning/EEC Chairman Date:

PROJECT SUMMARY

A. **Project Location**: The proposed project area is 12.82 acres located at 1450 E. Shank Road, Brawley, CA 92227 (being a portion of Tracts 70-A, Township 13 South, Range 15 East, SBB&M) approximately ¾ mile West of Casey Road and north of Shank Road; and is further identified as APN 038-170-017-000 (Exhibit "A"). The proposed site is located South of the existing 40.67 acres composting area and North of the existing cattle corrals parallel to Shank Road.

B. **Project Summary**: Applicant is proposing to expand the existing composting facility and operations under Conditional Use Permit #12-0018. Currently, Conditional Use Permit #12-0018 is permitted to operate a composting facility using steer and cattle manure and chicken manure in a 40.67acre area. Current permitted amount is received at site is 10,000 tons per year, inclusion of an additional 15,000 tons per year of steer manure received at this site from feedlots within a fifteen (15) mile radius, and 5,000 tons per year of chicken manure from either San Diego County or Riverside County, combined for a total of up to 30,000 tons per year. There is a maximum of 25 trucks per day entering the composting facility to pick up and or deliver materials from March through May.

   The proposed project intents to expand the existing composting facility 12.87 acres for a total of 53.49 acres. The project includes the increment of the material proposed for processing from 30,000 tons to 60,000 tons per year of bovine and chicken manure, with a peak of 800 tons per day. The 40,000 tons per year of bovine manure will be received from the feed lot located in the adjacent parcel and from feedlots within a fifteen-mile radius. The 20,000 tons per year of chicken manure will be brought from San Diego County.

   The propose expansion will operate on the same schedule as the existing operation, which is six days per week, Monday through Friday 6 a.m. to 2 p.m. The operations will expand to include the months of June through February. A conservative maximum of 32 daily Class 8 trucks for manure and compost movement is proposed. The proposed project also includes a new driveway entry into the facility from E. Shank Road and a new 10,000 gallon tank is also proposed to supplement fire water for the proposed expansion.

C. **Environmental Setting**: The parcel is divided into three areas briefly described below. The Parcel is surrounded by agricultural land to the North, South, East and West as well as the Mesquite Drain on the North, the Magnolia Lateral on the South and a private concrete water delivery on the East.

   Area 1 (not part of this Project) – Existing cattle corrals leased to a feedlot covering 22.41 acres (Figure 2, Project Description for SpreadCo, Inc document). This area extends along the length of the western property line from Shank Road on the South to Farr Road on the North. The area surrounding the corrals/feedlot is fenced. The area has shade structures and feed bunkers for the cattle. The existing composting area (Area 3) and the proposed Project site (Area 2) are described below.

   Area 2 – Proposed project site (expansion area) covering 12.82 acres in the southern part of the Parcel north of the existing corrals along Shank Road. The area is mostly vacant aside from an existing truck scale house and the unpaved entrance off of Hastain Road. Area 2 is bordered by existing leased corrals on the west (Area 1), the existing SpreadCo Facility on the North (Area 3) and the private concrete water delivery and Hastain Road on the East (Figure 3, Project Description for SpreadCo, Inc document).

   Area 3 (not part of this project) – Existing SpreadCo Facility currently covers 40.67 acres and is bordered by the Mesquite Lateral and Farr Road on the North, the project site on the south (Area 2), private concrete water and delivery and Hastain Road on the East and the existing cattle corrals (Area 1) on the West (Figure 2, Project Description for SpreadCo, Inc document). Currently there are approximately 40 compost windrows 12 feet wide, 6 feet tall and 1,200 feet in length. An existing portable toilet, 10,000-gallon steel horizontal water tank for fire suppression and equipment parking area occupy Area 2. This area also includes a 2.3-acre retention basin approximately 110 feet wide and 922 feet long and 5 feet deep used to capture runoff from

the parcel.
The existing parcel has an unpaved access off of Shank Road on the South and Hastain Road on the East. An Access point is also available on the North but is not used as it crosses the Mesquite Drain.

D. **Analysis**: The proposed project is for the 12.87 acres expansion of the existing 40.67 acres compost facilities under CUP #13-0018 and a volume increase from 30,000 tons to 60,000 tons yearly. The parcel is zoned A-3 (Heavy Agriculture), which designates areas that are suitable for the heaviest agricultural land uses and agricultural activities that are compatible with agricultural uses. A composting facility is permitted with a Conditional Use Permit in a Heavy Agricultural zone per to Title 9, Division 5, Chapter 9, Section 90509.02.

E. **General Plan Consistency**: Under the Land Use Element of the Imperial County General Plan, the project site is designated as "Agriculture." The proposed project could be considered consistent with the General Plan since a composting facility is a permitted use with a Conditional Use Permit in the A-3 (Heavy Agricultural) zone.

Exhibit "A"
Vicinity Map

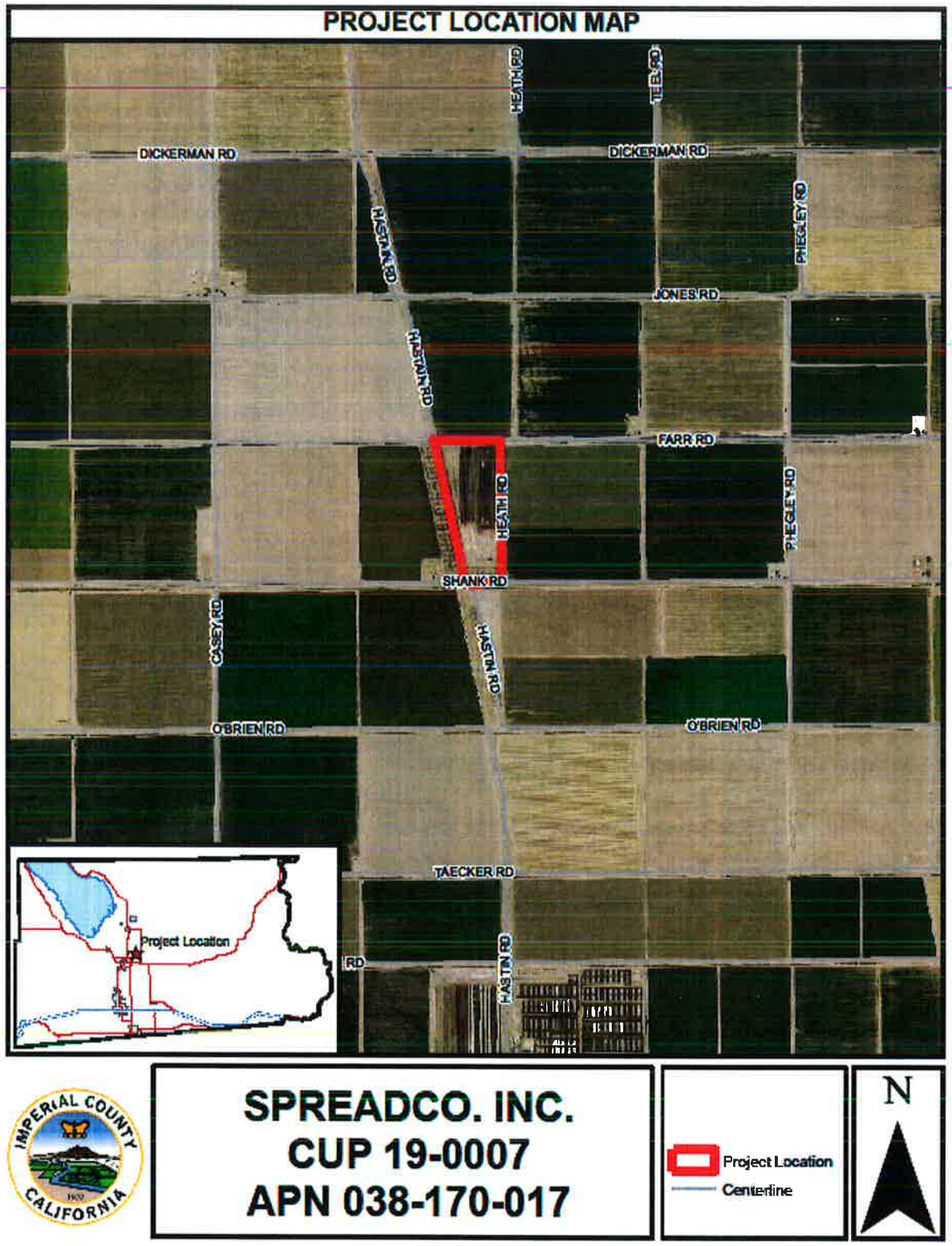

Exhibit "B"

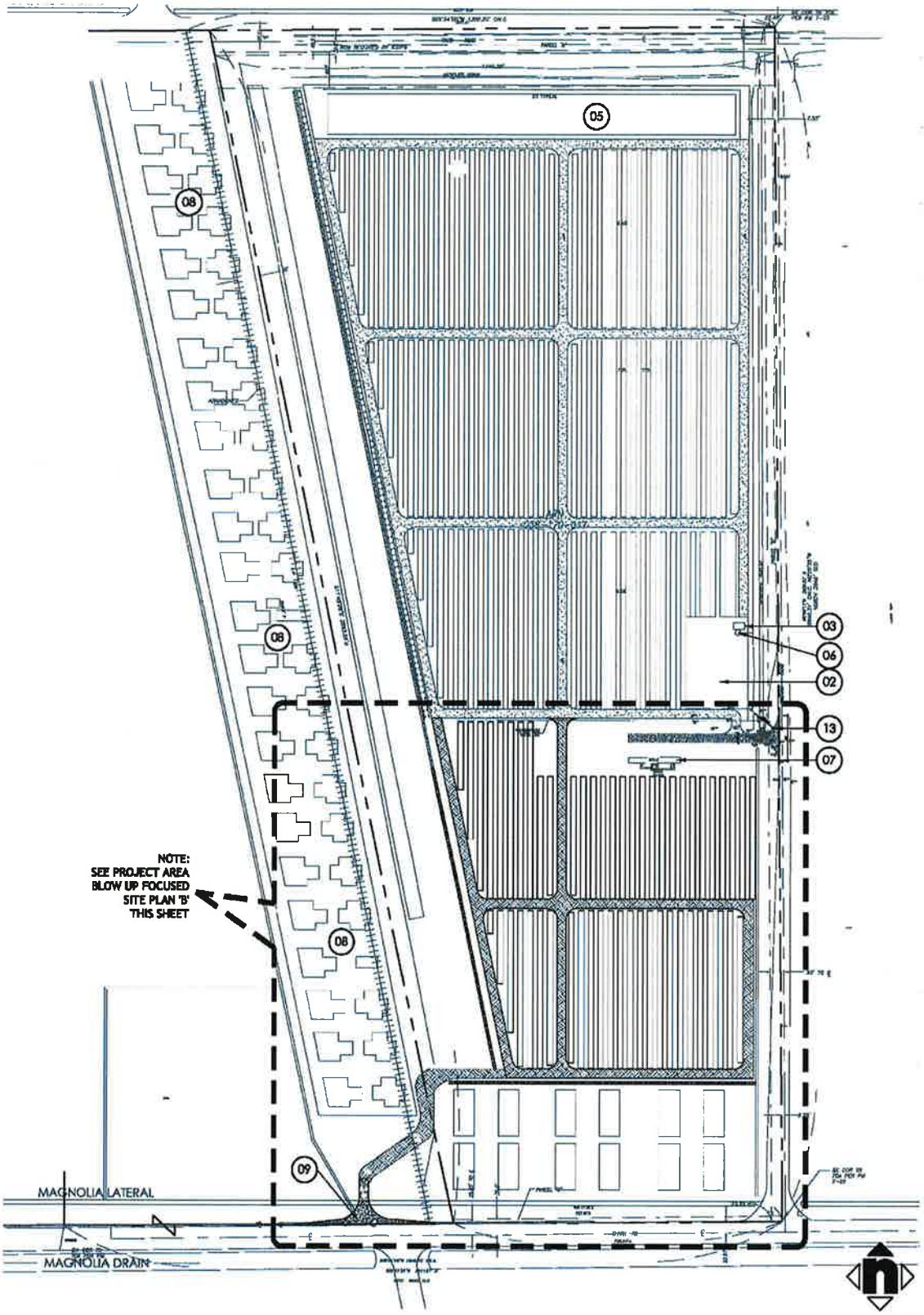

FIGURE 3

OVERALL PARCEL SITE PLAN WITH PROPOSED EXPANSION AREA

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

I. *AESTHETICS*

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista or scenic highway? ☐ ☐ ☐ ☒

a) The project site is not located near any scenic vista or scenic highway according to the Imperial County Circulation and Scenic Highway Element[2]; therefore, no substantial adverse effect is expected.

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

b) As previously stated, the proposed project is not located near a Scenic vista or Scenic Highway and would not substantially damage scenic resources. Therefore, no impact is expected.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surrounding? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? ☐ ☐ ☒ ☐

c) The proposed project would not substantially physically degrade the environment since there is an existing composting facility and the proposed project is for the existing facility expansion. Less than significant impacts are expected.

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

d) The proposed project is for the expansion of an existing composting facility, and does not include any sources of new substantial light or glare as a part of the project. Minimal light and glare might be generated by truck windshields and headlights entering and exiting the property. However, less than significant impacts are expected.

II. *AGRICULTURE AND FOREST RESOURCES*

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. --Would the project:

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? ☐ ☐ ☐ ☒

a) The proposed project site is listed as "Other Land" per the Imperial County Important Farmland 2016 Map[3], therefore the proposed project will not convert any type of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; therefore, no impact is expected.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract? ☐ ☐ ☐ ☒

[2] Imperial County General Plan Circulation and Scenic Highways Element
[3] Imperial County Important Farmland 2016 Map

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

b) The proposed project site is designated Agriculture on the Imperial County Land Use Plan Map[4] and Zoned A-3 (Heavy Agricultural)[5]; a composting facility is a permitted use with a Conditional Use Permit in the A-3 zone. Additionally, the proposed project's parcel is designated as "Non-Enrolled Land" per The California Department of Conservation Imperial County Williamson Act FY 2016/2017 Map[6], therefore, no impacts are expected.

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))? ☐ ☐ ☐ ☒

c) The Imperial County General Plan Land Use Map designates this parcel as "Agriculture Area", and no forest land is near the vicinity of the project. The proposed project will not conflict with the existing zoning and will not cause rezoning of forest land, timber land, or Timberland Production; therefore, no impact is expected to occur.

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

d) As previously stated in item c) above, the proposed project will not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impacts are expected.

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? ☐ ☐ ☒ ☐

e) This parcel is designated as "Other Land" as stated previously above under item a), therefore no change of Farmland to non-agricultural use, or forest land to non-forest use is expected. The proposed composting expansion, would maintain the current designation. Due to the parcel's current classification as "Other Land", less than significant impacts are expected.

III. *AIR QUALITY*

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to the following determinations. Would the Project:

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

a) The proposed project is located within an existing composting facility and could impact ozone levels in the County due to the creation of Volatile Organic Compounds (VOC's). Per Air Quality Study[7], there are Best Management Practices that reduce fugitive VOC emissions beyond any known threshold. Thus, a more detailed analysis of on-site emissions will be required during the permitting process to determine official offset conditions. The applicant will be required to submit a permit application in compliance with ICAPDC regulations to reduce any impact. Therefore, less than significant impacts are expected.

b) 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? ☐ ☐ ☒ ☐

b) As stated above under item a), the proposed project could impact ozone levels in the County due to the creation of Volatile Organic Compounds (VOC's). Pollutants related to composting include

[4] Imperial County Land Use Plan Map
[5] Map 35, Almorio Area.
[6] Imperial County Williamson Act FY 2016/2017 ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Imperial_16_17_WA.pdf
[7] Air Quality Study, SpreadCo, Inc. at ButterSpur Cattle Feed Yards; Imperial County California. June, 2019.

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

Amonia (NH3), Methane (CH4), Hydrogen Sulfite and Volatile Organic Compounds (VOC), full operations of the composting facility plus existing site emissions may increase the emissions of VOC and exceed the offset emissions levels. Thus, because the project will be subject to an Authority to Construct/Permit to operate pursuant to ICAPDC Rule 207 (New and Modified Stationary Source Review), the emissions associated with the off-road equipment and composting operation will be subject to air permits. Therefore, less than significant impacts are expected.

c) Expose sensitive receptors to substantial pollutants concentrations? ☐ ☐ ☒ ☐

c) The proposed Project is in a remote location with the a few farm residences and one school within two miles. The closest school is Magnolia Union Elementary School is located 1.62 miles from the project site and two houses located within one mile of the proposed project site. Per Table 3 "Project Screening Distances for Potential Odor Sources" page 14 of the Imperial County APCD CEQA Air Quality Handbook, the screening level distance for a composting station is one mile. Less than significant impacts are expected.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? ☐ ☐ ☒ ☐

d) The proposed project is located near an existing feed lot and composting facility, but it could create additional odors. However, as stated above under item c), the proposed project Facility is in a remote area and there are not a substantial number of people in the vicinity; there are a few residences and a school within a two mile area. Therefore, less than significant impacts are expected.

IV. ***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 Wildlife or U.S. Fish and Wildlife Service? ☐ ☐ ☒ ☐

a) According to the Imperial County General Plan Conservation and Open Space Element[8], Figure 1 "Sensitive Habitat Map", the project is not located within a sensitive habitat zone; and according to Figure 2 "Sensitive Species Map", the project is located within the "Burrowing Owl Species Distribution Model" area. However, the proposed project is in a disturbed land, therefore, it does not appear to have a substantially adverse effect, either directly or through habitat modification, or any species identified as a candidate, sensitive, or special status species in local or regional plan, policies, or regulation, or by the Departments of Fish and Wildlife. Less than significant impacts are expected.

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

b) According to the Imperial County General Plan's Conservation and Open Space Element, the proposed project site is not within a sensitive or riparian habitat, or other sensitive natural community; therefore, it does not appear to have a substantial effect in local or regional plan, policies, and regulations regarding sensitive natural communities or by the Departments of Fish and Wildlife. Less than significant impacts are expected.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? ☐ ☐ ☐ ☒

[8] Imperial County General Plan Conservation and Open Space Element - http://www.icpds.com/CMS/Media/Conservation-&-Open-Space-Element-2016.pdf

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

c) As previously explained in item a), the proposed project is not located in protected wetlands and therefore, it will not cause a substantial adverse effect on federal protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. No impacts are expected.

d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? ☐ ☐ ☒ ☐

d) The proposed project site is in a disturbed parcel within cattle feed lots and an existing composting facility and as stated above under item a), is not located within a sensitive habitat map. The proposed expansion of the existing composting facility is not likely that it would substantially interfere with the movement of any residential or migratory fish or wildlife species or with established resident or migratory wildlife, corridors or impede the use of native wildlife nursery sites. If there would be any impact, it is expected to be less than significant.

e) Conflict with any local policies or ordinance protecting biological resource, such as a tree preservation policy or ordinance? ☐ ☐ ☒ ☐

e) The proposed project is in a disturbed parcel and it is not located within an Agency-Designated Habitat area per Imperial County Conservation & Open Space Element, Figure 3 "Agency-Designated Habitats", therefore, it is not likely it would conflict with any local policy or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Therefore, less than significant impacts are expected.

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? ☐ ☐ ☒ ☐

f) The proposed project is not within a designated sensitive area according to the Imperial County General Plan's Conservation and Open Space Element, therefore, it is not expected to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Less than significant impacts are expected.

V. *CULTURAL RESOURCES Would the project:*

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? ☐ ☐ ☒ ☐

a) The Cultural Resource Inventory Report[9] prepared for SpreadCo. Inc. was comprised of a record search and a cultural resources pedestrian survey inventory. The record of search performed at the South Coastal Information Center and San Diego State University on August 19, 2019. The search encompassed a half-mile radius from the project site. Cultural Resources pedestrian inventory survey of the property was conducted on Saturday August 22, 2019.

The record search did not identify any results for the proposed project area. The pedestrian survey was negative for cultural resources. The project area was previously graded and developed. Due to the lack of identified resources, previously existing recordation nor documentation, it is likely that ground disturbances related to the project will not cause adverse effects to significant cultural resources. Based on the results, the report also did not recommended to have cultural resource monitoring for this project. Less than significant impacts are expected.

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

b) As previously mentioned under item a) above, the proposed project is located on disturbed land and based on the Cultural Resource Inventory Report it is not likely to cause a substantial change

[9] Cultural Resources Inventory Survey Report, SpreadCo. Inc., at ButterSpur Cattle Feed Yards. August 2019.

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

to an archeological resource. Less than significant impacts are expected.

c) Disturb any human remains, including those interred outside of dedicated cemeteries? ☐ ☐ ☒ ☐

c) As mentioned under Item a) above, the proposed project site is located on disturbed land with and based on the Cultural Resource Report, is not expected to result in the disturbance of any human remains, including those interred outside of dedicated cemeteries. Less than significant impacts are expected.

VI. ***ENERGY Would the project:***

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? ☐ ☐ ☒ ☐

a) The proposed project would expand operations at the existing SpreadCo Facility. Energy would be needed during construction of the 100-foot long Class II access road off of Shank Road, 20-foot wide Class II perimeter access roads, center road and a 10,000 gallon steel water storage tank. Energy needs for these features would be limited to diesel fuel and gasoline for trucks and equipment, Class II road base and steel for the tank. These materials would not be used in large quantities during construction. Once operational, additional truck trips to haul manure to the site and compost from the site would be generated over the course of the year. Additional electricity to pump water would also be used. The use of electricity to pump water would not be considered wasteful as it would be used to control dust and provide fire suppression water on project site. Diesel fuel consumption would increase commensurate to the expanded number of truck trips required to move the additional volume of manure and finished compost. No other sources of energy would be used as the compost would be produces through anaerobic activity. Thus, energy associated with producing the compost is not considered to be wasteful, inefficient or unnecessary use of energy resources. Therefore, this impact is considered to be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ☐ ☐ ☒ ☐

b) The proposed project is not located within a Renewable Energy Overlay Zone[10]. The proposed project would expand an existing composting use and would not convert land that is otherwise identified for development as a renewable energy project. Expansion of the SpreadCo Facility would not conflict with any state or local plan regarding energy efficiency. Less than significant impacts are expected.

VII. ***GEOLOGY AND SOILS Would the project:***

a) Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury, or death involving: ☐ ☐ ☒ ☐

a) The proposed project does not appear to conflict with the geology and soils of adjacent properties; and subsequently or indirectly cause potential substantial adverse effects, including risk of loss, injury, or death. Less than significant impacts are expected.

1) 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? ☐ ☐ ☒ ☐

1) The project is located approximately 5.5 miles east of the Imperial fault and it is north of the

[10] Renewable Energy and Transmission Element, County of Imperial General Plan – http://www.icpds.com/CMS/Media/Renewable-Energy-and-Transmission-Element-2015.pdf

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

State of California's Alquist-Priolo Earthquake Fault Zone Maps – Alamorio Quadrangle Map[11]; therefore, the site could be affected by the occurrence of seismic activity, in similitude to the surrounding parcels. Any proposed construction shall be in compliance with the California Building Code in order to reduce the risk to a level less than significant.

2) Strong Seismic ground shaking? ☐ ☐ ☒ ☐

2) The proposed project is for the expansion of the existing composting facility, including a new driveway through Shank Road and a 10,000 gallon steel water storage tank, any proposed construction may be affected by strong seismic ground shake in the event of an earthquake, therefore, the applicant will be require to comply with the California Building Code, said measures would assure that the impacts of the projects would be less than significant.

3) Seismic-related ground failure, including liquefaction and seiche/tsunami? ☐ ☐ ☐ ☒

3) As stated above under item 2), any proposed construction will require to comply with the California Building Code, which would assure that the impacts of the projects would be less than significant. Additionally, the project is not located in a Tsunami inundation area according to the California Official Tsunami Inundation Maps[12], no impacts are expected related to a seiche or tsunami.

4) Landslides? ☐ ☐ ☐ ☒

4) The proposed project is not located within a Landslide Activity area according to the Imperial County Seismic and Public Safety Element[13], Figure 2 (Landslide Activity). The topography within the project site is generally flat, and therefore will not be directly or indirectly affected by a landslide. No impacts are expected.

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

b) The proposed project is not located within an area of substantial soil erosion according to Imperial County Seismic and Public Safety Element, Figure 3 (Erosion Activity). Less than significant impacts are expected.

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 landslides, lateral spreading, subsidence, liquefaction or collapse? ☐ ☐ ☒ ☐

c) The proposed project site is not located on a geological unit that would become unstable or collapse as a result of the proposed project; compliance with California Building Code (CBC) for any future construction would make any impact less than significant.

d) Be located on expansive soil, as defined in the latest Uniform Building Code, creating substantial direct or indirect risk to life or property? ☐ ☐ ☒ ☐

d) The proposed project is for the expansion of the existing composting facility, and does not include any structures, habitable or non-habitable and therefore, it is not likely it would create a substantial direct or indirect risk to life. Soils underlying the project site generally consist of Imperial Silty Clay which can be highly expansive, however, compliance with the California Building Code (CBC) seismic coefficients would assure that any impact of the proposed project would be less than significant.

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

11. State of California Special Studies Map - http://gmw.consrv.ca.gov/SHP/EZRIM/Maps/ALAMORIO.PDF
12. Department of Conservation Tsunami Inundation Maps - http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=tsunami
13. Imperial County Public Safety Element - http://www.icpds.com/CMS/Media/Seismic-and-Public-Safety-Element.pdf

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

e) The proposed project does not include septic tanks, a portable toilet is located north of the project site in Area 3. Less than significant impacts are expected.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ☐ ☐ ☒ ☐

f) The proposed project is for the expansion of the existing composting facility on a disturbed land, does not require any deep excavation and it is not likely it would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Less than significant impacts are expected.

VIII. ***GREENHOUSE GAS EMISSION*** ***Would the project:***

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

a) The proposed project would expand existing SpreadCo Facility in Area 3 into Area 2. Per Air Quality Study, composting has an overall beneficial effect when looking holistically at the effect on GHG emissions. Compost application used for agricultural operations reduces the amount of water and synthetic fertilizer needed, as well as soil erosion, increases soil carbon storage and reduces the use of herbicides. To capture these benefits of compost application, the California Air Resources Board (CARB) has established a life-cycle method to quantify the GHG emission reductions or CERF. According to the Air Quality Study, the use of compost as an agriculture amendment will result in a CERF of 0.54 tCO_2e per ton of feedstock.

Total on-road, off-road, and composting GHG emissions and related GHG emissions reductions are presented in **Table** GHG 1**.** Detailed calculations are presented in the Air Quality Study included as attachment of this document.

The Air Quality Study mentioned that the South Coast Air Quality Management District (SCAQMD) proposes that if a project generates GHG emissions exceeding 3,000 tCO_2e per year, a project's GHG emissions could be significant; however, the Air Quality Study also mentions that when applying the benefits to climate change that composting provides, the net GHG emissions from this Project would be less than significant.

Table GHG 1 – Total GHG Emissions

Sources	Total Tonnes Per Year			
	CO_2	CH_4	N_2O	CO_2e
Off-site Transport	269.95	0.0016	0.0012	270.3
Off-site Employee Commute	9.61	0.0008	0.0003	9.7
On-site Equipment	178.03	0.0459	N/A	179.2
On-site Fugitive Composting	**	73.724	10.579	4,827.8
Total Emissions	**457.6**	**73.77**	**10.58**	**5,287**
Life-cycle emission reductions				32,400
Total Net GHG Emissions				***-27,113***

*** CO_2 emissions from composting are biogenic*

Source: Air Quality Study, SpreadCo Inc

		Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
b)	Conflict with an applicable plan or policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

b) Per Air Quality Study, as described under item a) above, operational GHG emissions are minimal and the construction emissions are short-term, therefore, the Project would not conflict with any applicable plan, policy, or regulation adopted for reducing the emissions of GHGs. Therefore, it is not expected to conflict with an applicable plan or policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Less than significant impacts are expected.

IX. ***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?	☐	☐	☒	☐

a) The project does not propose to routinely transport, use, or dispose of any hazardous materials. Additionally, per ICDPW comment letter dated July 24, 2019, all solid and hazardous waste shall be disposed of in approved solid waste disposal sites in accordance with existing County, State and Federal regulations (Per Imperial County Code of Ordinances, Chapter 8.72). Therefore, if there is any impact, it would be less than significant.

b)	Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

b) The proposed project is not expected to create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Less than significant impacts are expected.

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

c) The proposed project is not located within ¼ mile of a school, thus, the project is not expected to emit hazardous emissions, materials, substances or waste; therefore, no are expected.

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?	☐	☐	☒	☐

d) The proposed project site is not located on a site included on a list of hazardous material sites[14]; therefore, less than significant impacts are expected.

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 or excessive noise for people residing or working in the project area?	☐	☐	☐	☒

e) The proposed project is not located within an airport land use plan, or within two miles of a public airport or public use airport. The Brawley Municipal Airport is approximately 6 miles to the west of the proposed project. Therefore, it would not result in a safety hazard for people residing or working in the project area; therefore, no impact is expected.

f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

[14] EnviroStor Database http://www.envirostor.dtsc.ca.gov/public/

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

f) The proposed project is not expected to interfere with an adopted emergency response plan or emergency evacuation plan. The project site has access from Shank road and from Hastain Road. Per ICDPW letter dated July 24, 2019; both access to the proposed project parcel shall comply with ICDPW conditions of approval. Therefore, less than significant impacts are expected.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? ☐ ☐ ☒ ☐

g) The proposed project site is located within the "LRA Moderate Fire Hazard Severity Zone" according to the California Department of Forestry and Fire Protection "Draft Fire Hazard Severity Zones in the LRA" Map of Imperial County[15]. However, there is an existing 10,000 gallon steel water storage tank north of the entrance of Hastain Road. A new 10,000 gallon steel water storage tank is planned to be installed in order to serve the proposed project site. Fire protection services in the area are provided by the Imperial County Fire Department (ICFD) and the proposed expansion shall comply with this ICFD requirements. Therefore, any impact related to expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires is considered to be less than significant.

X. ***HYDROLOGY AND WATER QUALITY*** ***Would the project:***

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? ☐ ☐ ☒ ☐

a) According to ICDPW comment letter dated July 24, 2019; the Developer shall furnish a Drainage and Grading Plan/Study to provide for property grading and drainage control, which shall also include prevention of sedimentation of damage to off-site properties. The Study/Plan shall be submitted to the Department of Public Works for review and approval. The applicant shall implement the approved plan. Employment of the appropriate Best Management Practices (BMP's) shall be included. (Per Imperial County Code of Ordinances, Chapter 12.10.020 B). Compliance with ICDPW requirement would reduce any impact to less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? ☐ ☐ ☒ ☐

b) The proposed project does not propose to utilize groundwater, water used for the project would be supplied by IID for dust control and fire suppression. As stated above under item a), a Drainage/Grading plan acceptable for the Department of Public Works would be required, therefore, it is not expected that the project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Less than significant impacts are expected.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: ☐ ☐ ☒ ☐

c) The proposed project is located within an existing composting facility and is not expected to substantially alter the existing drainage pattern at the site. However, as stated above under item a), a Drainage/Grading plan acceptable for the Department of Public Works would be required. Less than significant impacts are expected.

(i) result in substantial erosion or siltation on- or off-site; ☐ ☐ ☒ ☐

(i) The proposed project site is compacted soil and the proposed uses would not cause substantial erosion. No streams or rivers are adjacent to the proposed project site that could

[15] California Department of Forestry and Fire Protection "Draft Fire Hazard Severity Zones in the LRA" Map of Imperial County

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

be subject to siltation. Less than significant impacts are expected in substantial erosion or siltation on- or off-site.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; ☐ ☐ ☒ ☐

(ii) The existing drainage characteristics of the project site will remain substantially the same following implementation of the proposed project. The proposed addition of a 100-foot long Class II access road off of Shank Road (extending though Area 3), 20-foot wide Class II perimeter access roads and center road would add some impervious surfaces to the site, but the majority would remain unpaved and pervious. The project site (i.e. Area 2) is compacted and water is allowed to percolate through surface soils and is also conveyed via surface pipes to a detention basin north of Area 3. As a result, the proposed project would have less than significant impact with regard to increasing the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

(iii) 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; or; ☐ ☐ ☒ ☐

(iii) The proposed project would not generate substantial amounts of runoff as described in item ii), above. The Project site will remain largely pervious aside from the addition of a 100-foot Class II access road off of Shank Road (extending through Area 3), 20-foot wide Class II perimeter access roads and center road through Area 2. Surface pipes will convey runoff to a detention basin north of Area 3. Thus, the proposed project will not substantially alter the existing drainage pattern of the site, substantially increase the rate of runoff, or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems. Therefore, less than significant impacts are expected.

(iv) impede or redirect flood flows? ☐ ☐ ☒ ☐

(iv) The proposed project is located within Zone "X" per Federal Emergency Agency's Flood Insurance Rate Map Panel 06025C1050C. Therefore, less than significant impacts are expected.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? ☐ ☐ ☒ ☐

d) The project site is not located within a Tsunami Inundation Area according to the Department of Conservation and as previously stated, it is located in an area of minimal flooding; therefore, it is not likely it would expose people or structures to a significant risk release of pollutants due to project inundation. Less than significant impacts are expected.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? ☐ ☐ ☒ ☐

e) The proposed project will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. As stated above under item a), a Drainage/Grading plan acceptable for the Department of Public Works would be required. Less than significant impact is expected.

XI. ***LAND USE AND PLANNING Would the project:***

a) Physically divide an established community? ☐ ☐ ☐ ☒

a) The proposed project will not physically divide an established community; therefore, no impact is expected.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the ☐ ☐ ☒ ☐

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

purpose of avoiding or mitigating an environmental effect?

b) The proposed project site is currently zoned A-3 (Heavy Agricultural) and designated Agriculture per the Imperial County Land Use Map. The project is submitting a new CUP to expand composting operations currently allowed under CUP #12-0018. A composting facility is a permitted use under a Conditional Use Permit per Title 9, Division 5, Chapter 9, Section 90509.02. The proposed Project is consistent with the existing land use designation, therefore conflicts with an applicable land use plan are considered less than significant.

XII. ***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?	☐	☐	☒	☐

a) The proposed project does not include the removal of mineral resources and it is not located within the boundaries of an active mine per Imperial County General Plan's Conservation and Open Space Element, Figure 8 "Existing Mineral Resources". Less than significant impacts are expected.

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?	☐	☐	☒	☐

b) The proposed project will not 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. Less than significant impacts are expected.

XIII. ***NOISE*** ***Would the project result in:***

a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

a) Long-term operational noise level would increase on the Project site, and along the truck routes. However, the daily increase in noise from truck trips would be from 25 trips per day to a conservative maximum of 32 trips per day and would be spread out over the course of the day. Noise levels resulting from construction would be short-term and typical of equipment use to construct a driveway (asphalt spreader, compactor) are not anticipated to exceed County construction noise standards. Once operational, the increase in noise is not anticipated to increase substantially on a daily basis as truck noise would be spread over more days rather than having a substantial daily increment. The increases may affect on-site workers who are already accustomed to on-site operational noise (including trucks, compost turner, etc). However, the proposed project would continue to be subject to the Noise Standards, as set out in the Noise Element of the Imperial County General Plan, Noise Standards compliance would make any impacts to be less than significant.

b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

b) Significant vibration is typically associated with activities such as blasting or the use of pile drivers, neither of which would be required during the construction of the 100-foot long Class II access road off of Shank Road (extending through Area 3), 20 foot-wide Class II perimeter access road, center road or installation of a 10,000-gallon steel water tank. Vibration does not occur during operation of the proposed project as no pile driver or similar equipment is used in association with the composting. As stated above under item a), the proposed project is located within an existing composting facility and does not anticipate the generation of excessive groundborne vibration or groundborne noise levels; however, the proposed project would continue to be subject to the Noise Standards, as set out in the County's General Plan. Less than significant impacts are expected.

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

c) For a project located within the vicinity of a private airstrip or 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? ☐ ☐ ☐ ☒

c) The proposed project site is not within the vicinity of a private airstrip; the Brawley Municipal Airport is approximately 6 miles to the West and slightly South of the project site. Therefore; no impacts are expected.

XIV. ***POPULATION AND HOUSING*** ***Would the project:***

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)? ☐ ☐ ☐ ☒

a) The proposed project would not induce substantial unplanned population growth in the area either directly or indirectly, no new residences, business, or road extensions are proposed. Therefore, no impacts are expected.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ☐ ☐ ☐ ☒

b) The proposed project will not displace substantial numbers of people necessitating the construction or replacement housing elsewhere. Therefore, no impact is expected.

XV. ***PUBLIC SERVICES***

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: ☐ ☐ ☒ ☐

a) The proposed project is for the expansion of the existing composting facility and it is not expected to result in substantial adverse physical impacts associated with potential impacts foreseen on public services. However, any impact would be less than significant.

1) Fire Protection? ☐ ☐ ☒ ☐

1) The proposed project is not expected to result in substantial impacts on fire protection, the project site currently has one 10,000 gallon fire suppression water tank and another tank of the same size is proposed as part of the expansion. The compost piles would be watered on a regular basis to control dust and also serve to reduce fire potential; any new impacts would be less than significant.

2) Police Protection? ☐ ☐ ☒ ☐

2) The proposed project is not expected to result in substantial impacts on police protection; any new impacts would be less than significant.

3) Schools? ☐ ☐ ☐ ☒

3) The proposed project is not proposing a residential component, neither includes the generation of need for new housing to accommodate workforce population, therefore it is not expected to have a substantial impact on schools. No impacts are expected.

4) Parks? ☐ ☐ ☐ ☒

4) The proposed project is not expected to create a substantial impact on parks. No impacts are

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

expected.

5) Other Public Facilities? ☐ ☐ ☒ ☐

5) Per ICDPW comment letter dated July 24, 2019, prior to the issuance of grading, building and encroachment permits, all off-site improvements within Imperial County right-of-way shall be financially secured by either a road improvement bond or letter of credit. Prior to the issuance of final certificate of occupancy, the Developer shall be responsible for repairing any damage caused to County roads during construction as determined by the Imperial County Road Commissioner. Compliance with ICDPW would bring any impacts would be less than significant.

XVI. *RECREATION*

a) Would the project increase the use of the existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ☐ ☐ ☐ ☒

a) The proposed project is not expected to increase the use of the existing neighborhood and regional parks or other recreational facilities. No impact is expected.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment? ☐ ☐ ☐ ☒

b) The proposed project does not include or require the construction of recreational facilities. No impacts are expected.

XVII. *TRANSPORTATION* ***Would the project:***

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? ☐ ☐ ☒ ☐

a) The existing operation have a maximum of 3 daily employees and a maximum of 25 daily Class 8 trucks for manure import and compost export. The 25 daily trucks deliveries are spread throughout the day. On overage, the morning and evening commuter peaks have 2.5 trucks per hour (25 trucks/10 hours of operation from 6 a.m. to 4 p.m.), which is rounded to up to 3 trucks per hour. A passenger Car Equivalent (PCE) factor is applied to the Class 8 trucks to provide an equivalent number of passenger cars for comparison purposes. A Class 8 truck with 3 inbound peak hour trips would equal 9 PCE inbound peak hour trips.

The proposed operations will have the same number of employees (3 daily employees) and conservative maximum of 32 daily Class 8 trucks for manure and compost transport. The 32 daily truck trips are spread throughout the day. On average, the morning and evening commuter peaks will have 3.2 trucks per hour (32 trucks/10 hours of operation from 6 a.m. to 4 p.m.), which is rounded down to 3 trucks per hour. The same PCE factor is applied to the Class 8 trucks to provide an equivalent number of passenger cars for comparison[16].

As shown in table TR-1 from the SpreadCo Trip Generation Analysis, there will be an increase of 7 daily truck trips or 42 Average Daily Trips (ADT). However, the annual increase in manure import and compost export is calculated to have no increases in peak hour traffic over what is currently occurring with the existing SpreadCo Facility.

[16] Trip Generation Analysis for the proposed SpreadCo Project in the County of Imperial. March 19, 2019.

TABLE TR-1

Existing and Proposed Project Trip Generation

Trip Generation Source	Daily Vehicles	ADT with PCE	Morning Peak		Evening Peak	
			In	Out	In	Out
Existing Operations						
Employees (up to 3 with no PCE)[1]	3	6	3	0	0	3
Manure and Composting Trucks (max 25/day with PCE of 3)[2]	25	150	9	9	9	9
Proposed Operations						
Employees (up to 3 with no PCE)[1]	3	6	3	0	0	3
Manure and Composting Trucks (max 25/day with PCE of 3)[2]	32	192	9	9	9	9
Increase between Existing and Proposed	7	42	0	0	0	0

Per ICDPW comment letter dated July 24, 2019, truck trip project information provided indicating a conservatively maximum of 32 trucks per day entering the composting facility to pick up material would have minimal impacts to County of Imperial roads level of service and no road improvements are required at this time. Therefore, the proposed project is not expected to conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Less than significant impacts are expected.

b) Would the project conflict or be inconsistent with the CEQA Guidelines section 15064.3, subdivision (b)? ☐ ☐ ☒ ☐

b) The proposed project will not conflict or be inconsistent with the CEQA Guidelines section 15064.3, subdivision (b) since it is not expected to have a significant transportation impact within transit priority. However the proposed project site it is not located within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor. Less than significant impacts are expected.

c) Substantially increases hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ☐ ☐ ☒ ☐

c) The proposed project does not appear to substantially increase hazards due to design features or incompatible uses. The project proposes to expand the existing composting facilities, therefore the proposed project it is considered to be compatible with the current use. The proposed project also includes an addition of access road off of Shank Road; per ICDPW comment letter, primary access from Shank Road shall be per County of Imperial Department of Public Works Engineering Design Guidelines Manual – Detail of Commercial Driveway to County Rural Road Connection – Dwg. No. 410B. Compliance with ICDPW conditions would reduce any impact to less than significant in regards to a substantial increase in hazards due to a geometric design feature.

d) Result in inadequate emergency access? ☐ ☐ ☒ ☐

d) The proposed project parcel has two access points: one off Shank Road on the South and one on the East off of Hastain Road. The proposed project would construct a 100-foot long Class II access road off of Shank Road, 20-foot wide Class II perimeter access roads and center road. All

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traffic associated with the Project would access the Parcel off of Shank Road but the access off of Hastain Road could be available for emergency access. Per Imperial County Public Works Department comment Letter dated July 24, 2019, Hastain Road from Shank Road to project secondary emergency site access shall be improved to have two (2) 12-foot travel lanes consisting of Class 2 Base aggregate material as recommended by a California licensed Geotechnical Engineer and approved by ICPW Department. Such road improvements shall be completed prior to site construction activities to begin. Compliance with ICPW conditions would reduce any impact to less than significant.

XVIII. ***TRIBAL CULTURAL RESOURCES***

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe, and that is:	☐	☐	☒	☐

a) As previously stated under item V "Cultural Resources", a Cultural Resource Inventory Report was prepared for SpreadCo. Due to the lack of identified resources, previously existing recordation nor documentation, it is likely that ground disturbances related to the project will not cause adverse effects to significant cultural resources. Therefore, less than significant impacts are expected.

(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as define in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐

(i) As stated above, under item a), due to the lack of identified resources on the Cultural Resource Inventory Report, it is not likely the site would be eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as define in Public Resources Code Section 5020.1(k). Less than significant impacts are expected.

(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth is subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☐	☒	☐

ii) As stated above, under item a), due to the lack of identified resources on the Cultural Resource Inventory Report, it is not likely that the proposed project area would be a significant resource pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Therefore, less than significant impacts are expected.

XIX. ***UTILITIES AND SERVICE SYSTEMS Would the project:***

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

a) The proposed project is for the expansion of the existing composting facility, and will not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects. A new 10,000 gallon on-site fire suppression water storage tank is proposed, however, less than significant impacts are expected.

b) Have sufficient water supplies available to serve the project from existing and reasonably foreseeable future development during normal, dry and multiple dry years? ☐ ☐ ☒ ☐

b) The existing composting facility currently uses 53.88 acre-feet of water per year for dust control. Approximately 26.94 acre-feet of water will be needed in association with the proposed project (WRA Consulting Engineers). The project will obtain its water supply from IID via the private concrete delivery canal on the east side of the Parcel. The delivery canal is feed by the Magnolia Lateral along the southern boundary of the Parcel. Therefore, less than significant impacts are expected.

c) 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? ☐ ☐ ☒ ☐

c) The proposed project will not result in a determination by a wastewater treatment since it does not produce waste water. A portable toilet is available in the northern portion of the parcel. Therefore, less than significant impacts are expected.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? ☐ ☐ ☒ ☐

d) The proposed project would be operated by 2 to 3 employees and minimal solid waste is expected to be generated by the employees. Additionally, per ICDPW comment letter dated July 24, 2019; all solid and hazardous waste shall be disposed of in approved solid waste disposal sites in accordance with existing County, State and Federal regulations (Per Imperial County Code of Ordinances, Chapter 8.72). Compliance with ICDPW comment letter would assure that any impact shall be reduced to less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? ☐ ☐ ☒ ☐

e) As stated above, under item d), permittee shall comply with existing County, State and Federal regulations. Therefore, less than significant impacts would be expected.

XX. *WILDFIRE*

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan? ☐ ☐ ☐ ☒

a) The proposed project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones according to California Fire Prevention SRA Fee viewer, therefore, no impacts are expected related to substantially impair an adopted emergency response plan or emergency evacuation plan.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? ☐ ☐ ☐ ☒

b) As previously stated under item a) above, the proposed project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, therefore, no impacts are expected related due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? ☐ ☐ ☒ ☐

c) As previously stated under item a) above, the proposed project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, therefore, it would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Any impact would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? ☐ ☐ ☒ ☐

d) As previously stated under item a) above, the proposed project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, therefore it would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Any impact would be less than significant.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; Sundstrom v. County of Mendocino, (1988) 202 Cal.App.3d 296; Leonoff v. Monterey Board of Supervisors, (1990) 222 Cal.App.3d 1337; Eureka Citizens for Responsible Govt. v. City of Eureka (2007) 147 Cal.App.4th 357; Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th at 1109; San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.

Revised 2009- CEQA, Revised 2011- ICPDS, Revised 2016 – ICPDS, Revised 2017 – ICPDS, Revised 2019 – ICPDS

	Potentially Significant Impact **(PSI)**	Potentially Significant Unless Mitigation Incorporated **(PSUMI)**	Less Than Significant Impact **(LTSI)**	No Impact **(NI)**

SECTION 3
III. MANDATORY FINDINGS OF SIGNIFICANCE

The following are Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal, eliminate tribal cultural resources 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?	☐	☐	☐	☐

IV. PERSONS AND ORGANIZATIONS CONSULTED

This section identifies those persons who prepared or contributed to preparation of this document. This section is prepared in accordance with Section 15129 of the CEQA Guidelines.

A. COUNTY OF IMPERIAL

- Jim Minnick, Director of Planning & Development Services
- Michael Abraham, AICP, Assistant Director of Planning & Development Services
- Mariela Moran, Planner I
- Imperial County Air Pollution Control District
- Department of Public Works
- Fire Department
- Ag Commissioner
- Environmental Health Services
- Sheriff's Office

B. OTHER AGENCIES/ORGANIZATIONS

- Imperial Irrigation District
- Torres Martinez Desert Cahuilla Indians

C. ENGINEER AND TECHNICAL STUDIES

- Anastasia Miki, Principal Engineer. WRA Consulting Engineers
- Joe O'Bannon, Principal, OB-1 Air Analysis
- Justin Rasas, PE. Principal, LOS Engineering, Inc.
- Rebekah Loveless, Brandon Linton and Juliette Meling, Loveless Linton, Inc

(Written or oral comments received on the checklist prior to circulation)

V. REFERENCES

1. "County of Imperial General Plan EIR", prepared by Brian F. Mooney & Associates in 1993; and as Amended by County in 1996, 1998, 2001, 2003, 2006 & 2008, 2015, 2016.

2. Imperial County General Plan's Circulation and Scenic Highways Element
http://www.icpds.com/CMS/Media/Circulation-Scenic-Highway-Element-(2008).pdf

3. Imperial County Important Farmland 2016 Map
ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/imp16.pdf

4. Imperial County Land Use Plan Map
http://www.icpds.com/CMS/Media/LANDUSE-Map.pdf

5. Map 35, Almorio Area
http://www.icpds.com/CMS/Media/ZONE35.pdf

6. Imperial County Williamson Act FY 2016/2017
ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Imperial_16_17_WA.pdf

7. Air Quality Study, SpreadCo, Inc. at ButterSpur Cattle Feed Yards; Imperial County California. June, 2019.

8. Imperial County General Plan Conservation and Open Space Element
http://www.icpds.com/CMS/Media/Conservation-&-Open-Space-Element-2016.pdf

9. Cultural Resources Inventory Survey Report, SpreadCo. Inc., at ButterSpur Cattle Feed Yards. August 2019.

10. Renewable Energy and Transmission Element, County of Imperial General Plan
http://www.icpds.com/CMS/Media/Renewable-Energy-and-Transmission-Element-2015.pdf

11. State of California Special Studies Map
http://gmw.consrv.ca.gov/SHP/EZRIM/Maps/ALAMORIO.PDF

12. Department of Conservation Tsunami Inundation Maps
http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=tsunami

13. Imperial County Public Safety Element
http://www.icpds.com/CMS/Media/Seismic-and-Public-Safety-Element.pdf

14. EnviroStor Database
http://www.envirostor.dtsc.ca.gov/public/

15. California Department of Forestry and Fire Protection "Draft Fire Hazard Severity Zones in the LRA" Map of Imperial County

16. Trip Generation Analysis for the proposed SpreadCo Project in the County of Imperial. March 19, 2019.

VI. NEGATIVE DECLARATION – County of Imperial

The following Negative Declaration is being circulated for public review in accordance with the California Environmental Quality Act Section 21091 and 21092 of the Public Resources Code.

Project Name: Conditional Use Permit #19-0007

Project Applicant: SpreadCo, Inc.

Project Location: The project is located at 1450 E. Shank Road, Brawley, CA 92227. The 59.9-acre parcel is identified as Assessor Parcel Number 038-170-017-000.

Description of Project: Applicant is proposing to expand 12.82 acres the existing composting facilities under Conditional Use Permit (CUP)#12-0018. The utilized area of the existing composting facilities under CUP #12-0018 is 40.67 acres, the proposed 12.82 acres expansion would total 53.49 acres. Additionally, the proposed project includes to increase the composting operations an additional 30,000 tons annually, generating a total finished compost of 60,000 tons annually.

VII. FINDINGS

This is to advise that the County of Imperial, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environmental and is proposing this Negative Declaration based upon the following findings:

☐ The Initial Study shows that there is no substantial evidence that the project may have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☐ The Initial Study identifies potentially significant effects but:

(1) Proposals made or agreed to by the applicant before this proposed Negative Declaration was released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.

(2) There is no substantial evidence before the agency that the project may have a significant effect on the environment.

(3) Mitigation measures are required to ensure all potentially significant impacts are reduced to levels of insignificance.

A NEGATIVE DECLARATION will be prepared.

If adopted, the Negative Declaration means that an Environmental Impact Report will not be required. Reasons to support this finding are included in the attached Initial Study. The project file and all related documents are available for review at the County of Imperial, Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 (442) 265-1736.

NOTICE

The public is invited to comment on the proposed Negative Declaration during the review period.

Date of Determination Jim Minnick, Director of Planning & Development Services

The Applicant hereby acknowledges and accepts the results of the Environmental Evaluation Committee (EEC) and hereby agrees to implement all Mitigation Measures, if applicable, as outlined in the MMRP.

Applicant Signature Date

SECTION 4

VIII. RESPONSE TO COMMENTS

(ATTACH DOCUMENTS, IF ANY, HERE)

IX. MITIGATION MONITORING & REPORTING PROGRAM (MMRP)

(ATTACH DOCUMENTS, IF ANY, HERE)

S:\APN\038\170\017\CUP19-0007\EEC\IS 19-0009 Environmental Checklist.docx

CULTURAL RESOURCES INVENTORY SURVEY REPORT

Cultural Resources Inventory Survey Report

SpreadCo. Inc., at ButterSpur Cattle Feed Yards

County of Imperial, CA

Prepared For:

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Prepared By:

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Loveless Linton, Inc.
Cultural Preservation & Archaeology

August 2019

Type of Study: Cultural Resources Inventory
USGS 7.5 Minute Wiest Quadrangle

Keywords: Imperial County; City of Brawley; Irrigation; California; Negative Survey; SpreadCo Inc., ButterSpur

Contents

1. Management Summary/Abstract

1.1 Purpose and Scope

Loveless Linton, Inc., hereafter referred to as "Loveless & Linton", performed a Cultural Resources Inventory as part of the California Environmental Quality Act (CEQA) requirements for the SpreadCo Inc. at ButterSpur Cattle Feed Expansion Project thereafter referred to as "project". The project location is in unincorporated Imperial County within the 7.5 Minute Wiest Quadrangle in Imperial County, California with the Colorado River to the to the east and the Salton Sea to the west (*see Appendix C. Maps 1 & 2)*. The existing ButterSpur Cattle Feed Yards is located at 1450 Shank Road Brawley, California (Assessor's Parcel Number [APN] 038-170-017). The entire parcel is bordered by the Mesquite Lateral and Farr Road on the north, the Magnolia Lateral and Shank Road on the south, a private concrete water delivery and Hastain Road on the east, and an irrigation canal and agricultural land on the west.

The proposed project is an expansion of an existing composting operation. The area is currently mostly vacant aside from an existing truck scale/scale house and the unpaved entrance off of Hastain Road. The project is being proposed under a new Conditional Use Permit (*see Appendix C. Maps 3 & 4*) covering 12.82 acres in the southern part of the parcel north of the existing corrals along Shank Road. The expansion would include a new 100-foot long, a 20-foot wide entry driveway off of Shank Road north into the Facility, and a 20-foot wide perimeter access road including two-north south segments on the east and west sides of the project area and a segment aligning east to west. A new 10,000-gallon water storage tank is also proposed in the northeast corner of the existing property (outside of project area) to supplement fire water for the expansion.

This Cultural Resource Inventory was comprised of a pedestrian survey performed prior to any project related grading by both a qualified archaeologist and a Native American monitor from Loveless Linton, Inc., and was executed to the best of their ability under the conditions provided. Prior to the survey the site had been cleared and there was evidence of tire tracks (see Figure 3).

1.2 Dates Investigation and Research

A record search was performed by Loveless & Linton at the South Coastal Information Center and San Diego State University on August 19, 2019. The search encompassed a half-mile radius from the project site. Proof of search can be located in Appendix A. A cultural resources pedestrian inventory survey of the property was conducted by Loveless & Linton staff members, Rebekah Loveless, RPA and Brandon Linton, member of the Mesa Grand band of Mission Indians, on Saturday August 22, 2019.

1.3 Findings of Research and Investigation

The record search did not identify any results. Several reports for the nearby/general area were produced, however the half-mile investigation returned negative for any previous

records and/or documents.

The pedestrian survey was negative for cultural resources. The project area was previously graded and developed. There was evidence of tire tracks throughout as well as an existing truck scale/scale house, and unpaved entrance off of Hastain Road, and an existing shade structure and arena seating area.

1.4 Constraints

On the date of the pedestrian survey, the temperature was between 93 and 95 degrees Fahrenheit with clear skies and a wind speed of 0-5 mph.

The project area has been previously disturbed and appears to have been previously cleared of vegetation and surface refuse; surface had 100% visibility with evidence of recent clearing, cleaning, and development (*See photos in Appendix B*).

1.5 Recommendations

No cultural resources were observed during the pedestrian survey. Due to the lack of identified resources, previously existing recordation nor documentation, it is likely that ground disturbances related to the project will not cause adverse effects to significant cultural resources. Therefore, it is not recommended to have cultural resource monitoring during for this project.

1.6 Disposition of Data

This report was prepared for Ericsson-Grant, Inc., and will be submitted to the South Coastal Information Center. All other documentation related to this study will be stored at the Loveless Linton, Inc. office in San Diego, California.

2. Undertaking Information/Introduction

2.1 Contracting Information

Loveless Linton, Inc. is a subcontractor to Ericsson-Grant, Inc. as part of the environmental team to assist in the archaeological review efforts on behalf of the County of Imperial, CA.

2.2 Federal, State and Local Regulations

2.2.1 Federal

Cultural resources are considered during federal undertakings chiefly under Section 106 of NHPA of 1966 (as amended) through one of its implementing regulations (36 CFR 800, Protection of Historic Properties) and the National Environmental Policy Act (NEPA). Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of NHPA. Other federal laws include the Archaeological Data Preservation Act of 1974, the American Indian Religious Freedom Act (AIRFA) of 1978, the Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1989, among others.

Section 106 of NHPA (16 United States Code [U.S.C.] §470f) requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places (NRHP) and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings (36 CFR 800.1).

Under Section 106, the significance of any adversely affected cultural resource is assessed, and mitigation measures are proposed to reduce the impacts to an acceptable level. Significant cultural resources are those resources that are listed in or are eligible for listing in the NRHP per the criteria listed at 36 CFR 60.4 below:

The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and that:

(a) Are associated with events that have made a significant contribution to the broad patterns of our history; or

(b) Are associated with the lives of persons significant in our past; or

(c) Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) Have yielded, or may be likely to yield, information important in prehistory or history

2.2.2 State

CEQA requires a lead agency to determine whether a project would have a significant effect on one or more historical resources. According to Section 15064.5(a) of the State CEQA Guidelines, a "historical resource" is defined as a resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR) (PRC21084.1); a resource included in a local register of historical resources (14 CCR15064.5[a][2]); or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (14 CC§15064.5[a][3]).

Section 5024.1 of the PRC, Section 15064.5 of the State CEQA Guidelines (14 CCR), and Sections 21083.2 and 21084.1 of the CEQA Statutes were used as the basic guidelines for this cultural resource study. PRC 5024.1 requires evaluation of historical resources to determine their eligibility for listing in the CRHR. The purposes of the CRHR are to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources in the CRHR, which were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP (per the criteria listed at 36 CFR §60.4) are stated below.

The quality of significance in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California is present in any object, building, structure, site, area, place, record, or manuscript that

possesses integrity of location, design, setting, materials, workmanship, feeling and association and that:

a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; or

b) Is associated with the lives of persons important in our past; or

c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

d) Has yielded, or may be likely to yield, information important in prehistory or history.

According to Section 15064.5(a)(3) (A–D) of the State CEQA Guidelines (14 CCR), a resource is considered historically significant if it meets the criteria for listing in the NRHP (per the criteria listed at 36 CFR 60.4).

Impacts that affect those characteristics of the resource that qualify it for the NRHP or that would adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered to have a significant effect on the environment. Impacts to cultural resources from the proposed project are considered significant if the project (1)

physically destroys or damages all or part of a resource; (2) changes the character of the use of the resource or physical feature within the setting of the resource that contributes to its significance; or (3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

The purpose of this cultural resource investigation is to evaluate whether any cultural resources remain exposed on the surface of the project site or whether any cultural resources can reasonably be expected to exist in the subsurface. If resources are discovered, management recommendations would be required for evaluation of the resources for NRHP and CRHR eligibility.

Broad mitigation guidelines for treating historical resources are codified in Section 15126.4(b) of the State CEQA Guidelines. To the extent feasible, public agencies should seek to avoid significant effects to historical resources, with preservation in place being the preferred alternative. If preservation in place is not feasible, a data recovery plan shall be prepared to guide subsequent excavation. Mitigation for historical resources such as buildings, bridges, and other structures that are consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Weeks and Grimmer 1995) will generally be considered mitigated below a level of significance.

2.2.3 Local

The County of Imperial General Plan's Conservation and Open Space Element provides objectives and policies for the identification and protection of significant cultural resources. It states that "Goal 1: Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value." The plan further implicates the importance of cultural resources in their list of objectives, stating that:

> "Objective1.2: Coordinate the acquisition, designation, and management of important natural and cultural resource areas in Imperial County with other governmental agencies as appropriate.
> Objective 1.3: Develop standards to protect significant natural and cultural resource areas for the purpose of enhancing both the planning and decision-making process.
> Objective 1.4: Ensure the conservation and management of the County's natural and cultural resources.
> Objective 1.6: Promote the conservation of ecological sites and preservation of cultural resource sites through scientific investigation and public education."

The plan continues to acknowledge the need for the preservation of cultural resources by stating that Goal 3 is the preservation of the spiritual and cultural heritage of the diverse communities of Imperial County. The stated goal is supported by the following objectives.

> Objective 3.1: Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.

Objective 3.2: Develop management strategies to preserve the memory of important historic periods, including Spanish, Mexican, and early American settlements of Imperial County.

Objective 3.3: Engage all local Native American Tribes in the protection of tribal cultural resources, including prehistoric trails and burial sites. (Imperial County Planning and Development Services Department 2016)

To prevent the destruction of important artifacts during development in these areas, the County will use the CEQA process to conserve cultural resources and conform to Senate Bill 18 "Consultation with Tribal Governments" and Assembly Bill 52 "Consultation with Tribal Governments". (Imperial County Planning and Development Services Department 2016)

2.3 Undertaking and Anticipated Disturbance

The proposed project is an expansion of an existing composting operation and is being proposed under a new Conditional Use Permit of 12.82 acres (see Appendix C. Maps 3 & 4). The expansion includes a new 100-foot long, a 20-foot wide entry driveway off of Shank Road north into the Facility, and a 20-foot wide perimeter access road including two-north south segments on the east and west sides of the project area and a segment aligning east to west. A new 10,000-gallon water storage tank is also proposed in the northeast corner of the existing property (outside of project area) to supplement fire water for the expansion.

The area of potential impact (API) for the proposed project is limited to the 12.82-acre area in the southern part of the parcel north of the existing corrals along Shank Road. The area is mostly vacant aside from an existing truck scale/scale house and the unpaved entrance off of Hastain Road. The project area is bordered by existing leased corrals on the west and south, the existing SpreadCo Facility on the north and a private concrete water delivery and Hastain Road on the east (*see Appendix C Maps 2 & 3).*

2.4 Project Personnel

Rebekah Loveless, M.A., RPA of Loveless Linton, Inc. acted as the Principal Investigator and crew chief for this project. Brandon Linton acted as Native American Monitor and archaeologist. Ms. Loveless meets the Secretary of the Interior Standards for archaeology and has extensive experience in Imperial and San Diego Counties. Mr. Linton is an enrolled member of the Mesa Grande Band of Mission Indians (Kumeyaay) and is Cultural Principal for Loveless & Linton. He has extensive archaeological experience and knowledge of pre-historic peoples.

3. Setting

3.1 Political

3.1.1 County of Imperial

The project site is located in unincorporated Imperial County. Nearby communities within Imperial County include Brawley, Hovley, Alamorio, and Citrus View. Imperial County encompasses the eastern desert portion of California. It borders Mexico, San Diego, Yuma, and Riverside Counties. Since the establishment of the County of Imperial in 1907, much of the desert floor has been utilized as farmland. In the last decade there has been an economic shift favoring the use of the open desert and farmlands in the Imperial County and surrounding deserts for renewable energy projects, changing the economic landscape of the area. Project area is located approximately 8 miles north east of Brawley, the nearest incorporated City. Brawley is located 200 miles southeast of Los Angeles and 130 miles east of San Diego, the City is situated directly north of Calexico and the U.S./ Mexico International border by approximately 25 miles (*See Appendix C. Maps 1 & 2*).

The County of Imperial encompasses approximately 4,597 square miles and is the 10th largest county in California with seven incorporated cities within the county. The County of Imperial has historically played a significant role in the agricultural economy that characterizes the Imperial Valley. Population in the unincorporated areas of the County tends to concentrate in agricultural area and in recreation/retirement communities. Agricultural related communities include the townsites of Heber, Niland and Seeley in the Imperial Valley. Along the Colorado River, in the eastern portion of the County, small population clusters exist within the townsites of Palo Verde and Winterhaven with most of the activities related to recreation. Other recreation/retirement communities include Ocotillo/Nomirage located in the southwest portion of the County; Bombay Beach, on the northeastern shore of the Salton Sea; and the West Shores communities of Salton City, Salton Sea Beach, and Desert Shores. These communities experience a noticeable increase in population during the winter months when visitors converge to the area to avoid cold/wet winters in other parts of the country (Imperial County Planning and Development Services Department 2016). The landscape around the urbanized areas is dominated by agricultural fields, scattered farmhouses, and related agricultural structures (ICF & Jones 2008).

3.2 Natural Setting

3.2.1 Geography/Geology

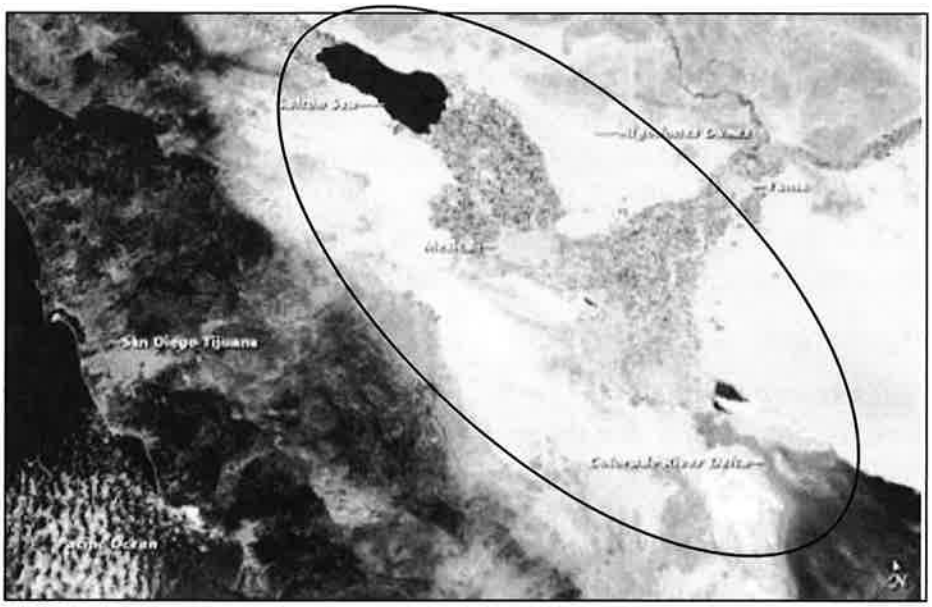
Ranging from approximately 100 feet below average mean sea level, the project area is located in low desert area of the Colorado Desert which is a subcategory of the larger Sonoran Desert. The Sonoran Desert covers approximately 200,000 square miles (520,000 square kilometers), including approximately 100,000 square miles of land. Moreover, the Sonoran Desert comprises much of the state of Sonora, Mexico, most of the

southern half of the United States, including Arizona, southeastern California, and most of the Baja California peninsula. Elevations within the United States boundaries of the Sonoran Desert peak at over 3,000 meters in Arizona and sink to 70 meters below sea level within the region of the Salton Trough, California. It is also known to be the hottest desert in North America.

The desert area encompassing the Salton Sea and most of Imperial County is known as the Salton Basin, Salton Trough, and/or Ancient Lake Cahuilla. Historically the low-lying area was occupied by an alternately flooding and dry lakebed. The lakebed is still visible in topographical maps but does not hold any water outside of the present-day Salton Sea. The lakebed, referred to herein as the "Salton Trough" is located at a low point where the Colorado River occasionally met the Sea of Cortez (*see Figure 1).*

The alternately flooding and dry lakebed would occasionally flood to the point where it would occupy a large area of the now desert floor. Evidence of these inundations still exists and can be readily seen in satellite images and the surrounding hills and on the geomorphology of the area (Busch 1995). Eventually, access of oceanic waters to the region was cut off by buildup of alluvial sediments that were deposited in the Colorado River delta (Loeltz et al. 1975). After this region was separated from the ocean, it was periodically inundated by Colorado River flood flows that were diverted into the trough as the result of subsequent deltaic barrier formations (Busch 1995). Intermittent freshwater lake and lagoon habitats persisted well into the Holocene. Later deposited sediments include the Lake Cahuilla Formation, named after the largest of the ancient lakes to have formed in the Salton Trough. This formation consists of a horizontal layer of weakly consolidated siltstones and clays as thick as 100 meters and was formed along the shores and on the bottom of Ancient Lake Cahuilla.

FIGURE 1. Salton Trough



The shoreline of this ancient lake can be seen outlined along the mountains on the west side of the trough by algae-excreted lime deposits. In other locations, ancient sand bars, sand spits and beaches, as well as wave cut cliffs and ledges can be seen. The high stand of this ancient shoreline is estimated to have been at nearly 13 meters above mean sea

level. At least five times within the last 2,000 years the Salton Trough is believed to have been filled to the high stand level. (Busch 1995).

The Salton Trough activities resulting in the alternating water levels of ancient Lake Cahuilla provided a predictable and rich environment for all regional inhabitants. As the ancient lake evaporated, playas formed that contained important resources such as salts and minerals (Kistler 1964; Jennings 1967). A period of drying occurred between 7,500 and 4,000 years before present (YBP), changing the ecological habitats of the Salton Trough, voiding the area of the plentiful water source and drying out the lower elevations. It appears that the coniferous woodland community that now dominates the 4,000 to 8,000 feet elevation range, grew at a much lower elevation, possibly as low as 700 feet above sea level (Martin 1965; FNAA 1999).

In the early Holocene (12,000-10,000 YBP) a more uniform climate regime developed; One that lacked the previous fluctuations between extremes, with regularly occurring summertime monsoonal rains (Van Devender 1990). Around 4000 YBP, the environment began to stabilize and form the desert sagebrush habitat that is currently present within the Salton Trough (FNAA 1999).

The ancient geology of the region consists of several major geologic formations. The Palm Springs, Imperial, Borrego, Brawley and Lake Cahuilla formations, bear fossils and sediments that relate to the specific kind of habitats that formed each layer (Schoenherr 1992).

3.2.2 Climate

The project area is within the climactic realm of the Coachella and Imperial Valleys. In modern times, this area is a low-altitude desert climate, characterized by extremely hot and dry summers with monsoonal rains. Winters are generally mild with times of extreme variation within a single day. Rainfall in the area averages three inches per year, with the majority of rainfall occurring from November through March. Seasonal storms including summer monsoon and high windstorms are in the fall and winter months.

3.2.3 Vegetation

Current flora that is known to inhabit the region includes approximately 3,000 species in the various elevations, but a handful of the species that dominate the area include, but are not limited to: Salt brush, Creosote bush, Ocotillo, Mesquite, and Agave. Without the historic agricultural disturbance of the area, much of the desert floor would have remained exposed to the elements and would appear similar to the currently preserved undeveloped open desert located less than 20 miles east or west of the project, just

beyond the developed agricultural fields.

3.2.4 Faunal

The desert floor is a harsh environment for many species of animals. However, the combination of the natural occurrence of animal life, migratory patterns, construction of the canal systems, the agriculture fields and the irrigation practices, the region is rich with animal life. Native animal species of the Salton Trough region include 401 bird species, over 20 species of mammals and 24 species of herpetiles (Patten et al. 2000; USFWS 1987). Special status species include 59 bird species, 15 mammal species and 12 herpetile species. Among the animals having special status are Yuma Clapper Rail (*Rallus longirostris yumanensis*), Brown Pelican (*Pelicanus occidentalis*), Peregrine Falcon (*Falco peregrinus*), Bighorn Sheep (*Ovis canadensis*), California Leaf-nosed Bat (*Macrotus californicus*), Flat-tailed Horned Lizard (*Phrynosoma mcalli*) and Coachella Valley Fringe-toed Lizard (*Uma notata*).

3.3 Cultural Setting

The cultural history of the Imperial Valley and closely associated regions of the Colorado Desert is divided into multiple phases, generally based on technology. For the purpose of this study, the cultural settings will be categorized by cultural occupations with technological phases listed as subcategories to the cultural occupation. It is thought by the authors that focusing on the distinct periods of occupation will better inform the client and better evaluate the project area for impact assessment; Pre-Contact phases are divided into chronological cultural phases, characterized by technological changes that are represented in the archaeological record.

3.3.1 Pre-Contact Native American Occupation

Pre-Contact Southern California was a rich and diverse landscape that supported abundant human populations. Today the tribes are largely divided by reservations but continue to identify with their indigenous heritage. Although most Native Americans are identified in the literature as being part of a large regional group associated with a mission during the Spanish occupation, such as Diegueno (San Diego Mission), Gabrieleno (Mission San Gabriel), etc., many still identify with their tribal names which usually translates to some vernacular form of "the people". The period of occupation prior to contact has been identified as going back at least 12,000 years before present (ybp). European occupation began in 1769 with initiation of Father Juniper Serra's Mission San Diego de Alcala. Prior to settlement, there were multiple exploration parties during the 1500 and 1600s that traveled north west to meet the Colorado River, but never crossed the body of water, therefore never impacting the areas west of the Colorado River (Pourade 1971).

3.3.1.1 Paleoindian Period 12,000-7,000 YBP

Paleoindian period is represented by a few basic tools: scrapers, choppers, bifaces, crescent and other lithic tools that characterize a hunter gather society. Malcom Rogers

first defined this technology as San Dieguito and dubbed the cultural group associated with this type of technology the San Dieguito Complex (Rogers, 1939). Warren further examined Rogers' classifications and found strong affiliation of the San Dieguito Complex to the Lake Mojave Complex (Warren, 1961;1966). People during this period are assumed to have utilized spear technology and been more nomadic than later populations. Much of the artifactual evidence that represents this time period is found along ancient shorelines of Pleistocene and early Holocene periods (Apple et al., 1997, Warren et al., 1981). A common dispute over this occupation period is the method of dating. Rogers' proposed method was largely based on the surface patination of the lithic materials, which has not been definitively proven to exhibit chronological patterning that would decisively conclude a date of manufacturing. Some suggest that the material could be of greater age than originally thought (Rogers, 1939, Borden, 1971).

3.3.1.2Archaic Period (7,000-1,200 YBP)

The Archaic period is represented by evidence of a change in technology. For this report it will be divided into two periods; Pinto/Early Archaic and Amargosa/Late Archaic periods, both representing technological shifts.

The Pinto Period/Early Archaic (7,000-3,500 YBP).

The Pinto period which is defined for the Colorado Desert region by Warren et al. in 1981 and the Mojave Desert region by Warren and Crabtree in 1986, is demarcated by the distinctive Pinto Point. These projectile points are generally notched or stemmed and are associated with atlatl utilization rather than spears. Other lithic resources associated with this time period include leaf-shaped scrapers and bifaces and milling tools. Although the Pinto Period has been studied enough to be defined by archaeologist, there is limited evidence of the occupation period in the project area. It is suggested that people occupying the Colorado Desert during this time period lived at lower elevations during a time that Lake Cahuilla and other desert water resources were low or non-existent. When the water level rose again in subsequent years it may have inundated the occupation sites, covering and or destroying archaeological evidence (Weide 1976). Additionally, it has been suggested that there was a general abandoning of the desert regions in the early Pinto Period due to a climatic warming and lack of resources (Wallace 1962).

Amargosa/Late Archaic Period (3,500-1,100 YBP).

The period referred to by Rogers following the Dieguito Complex is termed the Amargosa Period. This period is characterized by smaller projectile points, representing a movement from atlatl and dart point to bow and arrow technology (Wallace, 1962, Warren et al. 1981). Other materials associated with this period are suggested to represent an ecological change represented in the archaeological record with the presence of more milling tools, including the introduction of the mortar and pestle, a variety of lithic utilitarian tools including blades, drills, scrapers and decorative material such as painted pebbles and shell beads.

3.3.1.3 Patayan 1,200-Contact

Patayan was formerly called the "Yuman Complex" by Malcolm Rogers (Roger 1945), but in an effort to avoid confusion with the ethnographically Yuman speaking tribes, the name was changed to Patayan, meaning "the people" or "the old people" (Mithun 1999). This period is largely identified by the introduction of distinctive ceramic technologies to the archaeological record and the use of flood plain agriculture.

Although it is still debated, it is believed the cultural group that occupied the Salton Trough area at this time originally were part of a larger group that lived east of the Colorado River. The archaeological record suggests that people heavily relied on resources provided by the lacustrine environment of the Salton Trough area for sustainability and possibly as economic assets. Evidence includes fish traps, fish bones, shell middens, and the presence of marine material from the Salton Trough at other desert sites in Arizona (Stone 1991). The Patayan Period is generally split into three distinct phases (further discussed below) divided by apparent changes in ceramic technology (Waters 1982). However, with the increase in archaeological and geological data, the wet and dry intervals of the Salton Trough are becoming clearer, giving scientist a better idea of the ecological environments that governed the cultural patterns. With this evidence, archaeologists are beginning to rely more on the environmental and lacustral patterns for the identification and change of cultural patterns instead of solely the technological changes that are represented in the archaeological record. This may lead to a redefinition of cultural phases in the future, but for this report the phases as they are currently understood in the literature will be presented.

Phase I (1,200-900 YBP).

This period dates before the latest fillings of Lake Cahuilla to the first major infilling of the lake. As to be expected, with the return of a major water resource, cultural evidence reappears in much more abundance than is represented in prior periods. As a major marker for this period, five ceramic ware types have been identified to the early Patayan Period: Colorado Red, Black Mesa Buff, Black Mesa Red-on-Buff, and Colorado Red-on-Beige (Cordell 1997). Vessels include bowls, large jars with tapered necks, direct rims and Colorado shoulders (Moratto 1984). Additionally, the Cottonwood and Desert Side-Notched projectile points were prevalent during this period.

Phase II (900-450 YBP).

At this time, it is believed that Lake Cahuilla supported a stable lacustrine environment. There are four general ceramic wares distinguished in this phase: Tumco Buff, Palomas Buff, Parker Buff, and Salton Buff (Cordell 1997). An increase in ceramic ware may suggest an increase in population and the necessity of utilitarian ware to support the subsistence settlement patterns that developed along the Salton Trough and the Colorado River.

Phase III (450 YBP-Contact).

This period was well into the European occupation of the areas east of the Colorado River

and south of the present-day US/Mexico border and can be overlapped with portions of the historical period. The ceramics represented are largely dominated by Colorado Buff ware with other wares continuing to be present, but in less density than the Colorado Buff (Cordell 1997). Intrusive materials such as glass and metals have been recorded at sites form this period, indicating contact with European material culture. This is also when Lake Cahuilla evaporates for the final time up to present day. In combination, the presence of Europeans and the drying of the lake triggered a population shift. The archaeological record suggests that populations who were occupying the Salton Trough moved out of the lower elevations during this time and the years following the permanent Spanish occupation of the California coast; possibly favoring higher elevations with water supplies and avoiding contact with the newly introduced European populations (Waters 1982).

3.3.2 Post-Contact Historic Periods (1769-present)

As mentioned, the Salton Trough area had limited contact with Europeans. There had been expeditions to the Southwest for years, but no European explorers ever crossed the Colorado River limiting contact until the Spanish landed in San Diego in 1769 and shortly thereafter began exploring the eastern limits of present day California. This marks the first of three occupations post-contact. They will be discussed as follows:

- Spanish Period: 1769-1821
- Mexican Period: 1821-1842
- United States (American) Period: 1848-present

3.3.2.1Spanish Period (1769-1821)

The Spanish occupation of California began in 1769 with Father Junipero Serra establishing a chain of Missions along the California coast in what they termed Alta California. Father Serra quickly built Mission San Diego de Alcala along the San Diego River and began his efforts to indoctrinate Native peoples through force. In order to maximize their efforts, Spanish explorers ventured east into what is now Imperial County. The first Spanish explorer to enter the Imperial Valley was Pedro Fages in 1772. Looking for deserters, he rode along the Colorado Desert entering the Imperial Valley by way of an established Native American trail that led through Oriflamme Canyon to Corrizo Creek and down to the desert floor (Lawton 1976). One-year earlier Father Francisco Garces followed the Gila River west to where it met the Colorado River and then turned north, reaching the southern portion of what is now known as the Imperial Valley. Garces is thought to be the first European to see the Salton Trough (Hoyt 1948; Dowd 1960; Pourade 1971; Bannon 1974). Excited by the travels of Garces, Captain Juan Bautista de Anza obtained permission to travel west across the Colorado River to the California coast, establishing a route for explorers and immigrants to use. Anza's well-organized expeditions in 1774-1775 were well documented and serve as insight into how the peoples of the Imperial Desert lived prior to foreign influences and the future forced removals that dominated the turn of the 19th century and into the 20th century (Lawton 1976). Father

Francisco Garces was part of Anza's expedition and also documented their travels, providing valuable ethnographic information. He and Anza describe a large village, designated San Sebastian by the Spanish, of 400 inhabitants at the San Sebastian marsh. According to documentation this was the largest village encountered in the area and was passed through by over 300 travelers. Occupants of San Sebastian are documented to have fished the Gulf of Mexico and other peninsular estuaries, eaten mammals, harvested Mesquite beans and mescal that was transported from the high deserts (Bolton 1930). The Quechan occupied territory across the Colorado River and were known not to have a friendly relationship with the occupants of San Sebastian, who are assumed to be related to the group contemporarily known as Kumeyaay (San Diego County Native tribes). Many used Anza's route, traveling both east and west, until 1781 when a Quechan Tribal revolt against Mission San Pedro and San Pablo resulted in European fatalities and closed the trail until the American period (Bancroft 1886). Cayetano Limon led the last group of Spanish colonists west on the Anza trail documenting the destroyed missions and the abandonment of San Sebastian. It is unclear if the occupants of the village moved to avoid contact with Europeans afraid of repercussions from the Quechan rebellion, or if they occupied the site seasonally and moved locations for substance reasons. Although the village of San Sebastian is not located in the Salton Trough; nearly 30 miles north west of the project area it is the largest and best documented Native American Village that may have impacted project site and therefore is relevant information pertaining to the recommendations that will be discussed in a later section.

3.3.2.2 Mexican Period (1821-1848)

In 1821 Mexico gained independence from the Spanish crown. In 1826 the governor of Alta California passed an emancipation act for all Native Americans, freeing them from missionary rule and between 1834 and 1835 the mission system was abounded followed by the Rancho era. The movement of secularization of the missions resulted in much of mission lands becoming Mexican run ranches or "Ranchos". The Mexican government also handed out large land grants in an attempt to populate Alta California with Mexican inhabitants. This refocused subsistence practices from farming to cattle ranching and livestock production. By this time there was a regular mail route established between Sonora and the California coast, via the northern Colorado Desert and the San Gorgonio Pass (Hoyt 1948; Fitch 1961; Johnston 1977). It is also documented that Native Americans from San Gabriel Mission made annual trips to the Salton Trough to collect salt (Johnston 1977). In 1825 Captain Jose Maria Romero successfully traveled from Mission San Gabriel in Los Angeles across the southern portion of the Salton Trough to Yuma. In 1826, following recommendations formed from that expedition, the San Gorgonio Pass was abandoned in favor of a Yuma to San Diego trail for the official route from Sonora to Alta California (Hoyt 1948). The last documented expedition across the Salton Trough during the Mexican period was General Flores escaping Alta California to Sonora during the Mexican-American war in 1847 (Hoyt 1948). This period was short lived and little information of physical impact on the Imperial Valley and the Salton Trough area is

represented in the literature.

3.3.2.3 United States (American) Period (1848-present)

February 2, 1848 the Treaty of Guadalupe Hidalgo was signed; ending the Mexican American war and bringing California under the control of the United States of America. This marked the beginning of the end of free Native American occupation in the Imperial Valley. Until this time, Native Americans were still able to remain living in illusive villages in traditional ways. By 1934 a series of political and legal betrayals led to forced removals and the mandatory relocation of all Native Americans in California to government allotted reservations. Imperial County does not have any reservations within County limits, however, there are many surrounding the valley occupied by people of Cahuilla, Kumeyaay, Quechan, and Cocopah ancestry. As a result of the forced removals of Native American populations much of the ethnographic information available was lost due to the segregation of the Natives Americans and Anglo-Americans. This process created a regional and cultural divide between the Native peoples and Anglo-American people who would occupy their lands and eventually re-tell their history through Anglo-American paradigms that have been established by their own interpretations of Native American material culture. While ethnographic evidence does exist the rapid decline in visual presence of Native American in Southern California Anglo-American culture led to an academic assumption that the Native peoples in existence today do not possess the level of cultural knowledge that can be attained by empirically studying the archaeological data that is collected from abandoned Native American sites. In consequence, most of the ethnohistoric information that is available for this report is a result of Anglo-American historical accounts.

During this period transportation and communication methods advanced. In 1853 the US Government funded a US Geological Survey to explore the Salton Trough area for the development of transcontinental railroad route (Dowd 1960, Fitch 1961). Also, in the 1850s, there were established trails that traversed through the Imperial Desert used by mail carriers and stagecoach companies. Butterfield and Birch Overland Mail Lines both used routes that went from San Diego to Arizona by way of the Imperial Desert. In the 1860s gold was discovered in La Paz, Arizona. This drew many of the California prospectors east. William David Bradshaw knew that Californians would need an established trail, so he and a group of men set out east through the San Gorgonio Pass down across the Salton Trough and into Arizona. Although established as the "Bradshaw Trail" Bradshaw and his group followed an established Native American trail called the Cocomaricopa or Maricopa- Cahuilla Trail (Warren et al. 1981). This would be a well-used trail by prospectors, US military, cattle drivers, migrants, merchants, stagecoach companies, and all other travelers going to and from Southern California (Ross 1992). By the 1880s passenger travel was discontinued along the trail, leaving it primarily a business route for freight wagons and mule trains. The trail continued to be used well into the 20th century, but eventually became obsolete due to the construction of Interstate 10 (Ross 1992).

Anglo-American settlements followed the cattle drives and increased utilization of the area for transport. The old Anza trail became the Julian-Kane Springs Road and was frequented by cattle drives (Reed 1986). Cattle camps began to establish permanent settlements and by the 1880s and in 1910 the small settlement of San Felipe was established. This followed the accidental discovery of potable water in 1901 and improvements to the well in 1910 that enabled the well to support more people (Lindsay 1998). By 1920 San Felipe was abandoned, yet a few miles to the west the town of Borrego was established at the intersection of Julian-Kane Springs Road and Split Mountain Road and a hotel was built in 1924. Soon the town became populated but failed during the Great Depression (Lindsay 1998).

3.3.3 Local History

The Salton Trough has long been used as an agricultural landscape. Shortly after the annexation of California from Mexico, in 1849, Dr. Oliver Wozencraft presented a plan to the California State government to provide irrigation to the Imperial Valley (Stevens 1990). Wozencraft died before his ideas could be realized, but a group of likeminded people joined the cause to bring water to the Salton Trough.

3.3.3.1 Canal System

The Salton Trough, then called the Salton Sink, was first inundated with continuous and controlled water flow in 1901 (Starr 2005). In 1875-76 the United States funded a feasibility study for diverting water from the Colorado River between the Grand Canyon and Mexico, with the intent of providing water to California (Fitch 1961). In 1900 a contract was signed by Canadian capitalist George Chaffey to provide funding and promotion for the diversion and work began on the Imperial Canal that same year (Fitch 1961). By 1902 the canal was fully brought online, supplying the Salton Trough with reliable irrigation. By 1905, 120,000 acres where under cultivation but heavy rains that year led to a breach in the diversion canal system causing excess water to flood the Trough creating the Salton Sea (Fitch 1961).

The promise of lush farmland was attractive to many citizens and immigrant groups alike (Imperial Valley Historical Society). The newly named Imperial County saw a massive growth in population and economic opportunity. The massive canal system would keep Imperial County thriving for more than a century. In the 1938 the All-American Canal was completed, suppling the Salton Trough/Imperial Valley with a means of mass irrigation. The area became an agricultural focus and consummated the new role of the Salton Trough as a place of massive agricultural production. The All-American Canal (ACC) is the lifeline of the canal system in the Imperial Valley and one of the great engineering marvels of the American West. Without it, Imperial and Coachella Valley would not have become one of the most productive agricultural regions in California. The canal is an integral element in one of the most ambitious American public works projects to control the Colorado River and put its waters to use for residential and commercial development, agriculture, and power generation. The U.S. Bureau of Reclamation built and owns the

AAC, while the Imperial Irrigation District (IID) is responsible for its maintenance and operation. This includes the 82-mile canal and its system of 148 miles of mains, 1,438 miles of laterals, and 1,406 drainage ditches irrigating almost one-half million acres of farmland. Virtually all of the original elements still continue to operate or remain intact. Because of its historical and engineering significance, it has been determined eligible for the National Register of Historical Places by IID and the Bureau of Land Management (Schaefer 2001).

Since the creation of the Salton Sea, improvements to the canal system have been made and agriculture production remained the leading economic source of the Imperial Valley. In 1904 the City of Imperial was the first city in the Imperial Valley to incorporate. Shortly thereafter, in 1906, the city of El Centro was established creating an urban focal point for the landscape and in 1907 Imperial County was incorporated into California. By this time the area was well irrigated, and it was a successful agricultural metropolis (Steven 1990). Not until the 21st century when renewable energy gained momentum did agriculture begin to see a decline in the Imperial Valley.

The success of the canal system brought economic and population growth. During the late 19th and early to mid-20th centuries, Imperial County saw an increase in development and immigration. Americans and immigrants alike were attracted to the economic opportunities such as agriculture, dairy farms, railroad construction and mining (Imperial Valley Historical Society)

4. Methods

The methods employed to maximize project information were implemented as follows:

- Record Search
- Field Survey
- Analysis of the Above Tasks and Recommendation

4.1 Record Search

On August 19, 2019, a record search of the proposed project area was conducted at the South Coastal Information Center (SCIC) at San Diego State University, San Diego California. This search was conducted in an attempt to retrieve information on previously recorded sites within one square mile of the project limits. Proof of search is located in *Appendix A*.

4.2 Field Survey

The pedestrian survey was conducted by Rebekah Loveless and Brandon Linton on August 22, 2019. The project is limited to the 12.82-acre area in the southern part of the parcel north of the existing corrals along Shank Road (FIGURE 2 and *Appendix C Maps 2 & 3*). The area is mostly vacant aside from an existing truck scale/scale house and the unpaved entrance off of Hastain Road. The project area is bordered by existing leased corrals on the west and south, the existing SpreadCo Facility on the north and a private concrete water delivery and Hastain Road on the east.

FIGURE 2. Overview of Project Area. View is north from Shank Rd.

The intent of the survey was to identify any cultural resources and asses the API for potential buried resources. At the time the survey was conducted, the area was characterized by open dirt surfaces and 100% visibility and was done in 5-meter transect intervals. A hand-held GPS device was used to identify project boundaries and identify the location of any discoveries. For this study the methods of recordation are divided into three types of resources and four recording processes:

1. Isolates are characterized as a solitude cultural resource. These findings represent single diagnostic artifacts. These resources will be given a GPS point, three photographs are to be taken and a written description is logged for the record.
2. Sites are characterized by three or more cultural artifacts within a 10-meter radius. Generally, the artifacts should be of different material or typology as to not misrepresent an isolated activity as site. The site boundaries are established by finding the limits of where the resources are located; these boundaries are given GPS coordinates, GPS points of all individual resources within the site are taken, photographs are taken, a written description is logged for the record, and illustration of location and relative vicinity of artifacts are noted when possible.
3. Features are humanmade structures, such as a wall or a fire pit, or a grouping of items that represent a single action that contributes to the larger understanding of cultural activity, such as a pot drop or a cairn. These are recorded in the same manner as a site described above.
4. Traditional Cultural Properties (TCPs) are generally part of the natural landscape but are culturally relevant and important. These would be recorded with GPS, photos and a written description of meaning and/or additional resources near the TCP.
5. Non-culturally altered resources are resources that are not archaeological but may lend information as to the history of the area and/or help assess the area for buried resources. These may include, but are not limited to shell, patinas, diverse types of lithic material, glass, etc.

Upon discovery of any cultural resources the steps outlined above would be followed, a California State Department of Park and Recreation (DPR) 523 site form would be completed and submitted to the SCIC for assignment of primary numbers and site trinomials.

4.2.1 Constraints

As mentioned above, the field conditions were ideal, and no real constraints were encountered. (*See Appendix A for photos*).

4.2.2 Native American Collaboration

Loveless & Linton Consulting are a team of an academically trained archaeologist and a member of the Kumeyaay Nation. Although it is widespread practice to divide these two roles into mutually exclusive components of a project, in reality they share a common goal and are tasked with nearly identical duties. The team method taken by Loveless Linton, Inc. enables us to approach projects with different cultural lenses. Our goal, as a well-trained team is to merge the two viewpoints creating a more holistic view of a project that is both regulatory compliant and culturally expressive. Additionally, we are better able to assess impact areas because we have the academic knowledge coupled with cultural

knowledge that is inaccessible without sound Native American cultural knowledge and experience. This approach allows us to better asses the project site and produce recommendations that will minimize the risk of unanticipated discoveries and help eliminate the timely and costly process of formulating new mitigation measures mid-project.

5. Report of Findings

5.1 Record Search

The record search did not identify any results. Several reports for the nearby/general area were produced, however the half-mile investigation returned negative for any previous records and/or documents. See *Appendix A* for additional information.

5.2 Field Survey

The cultural inventory survey was conducted by Loveless Linton, Inc. on August 22, 2019. The pedestrian survey was negative for cultural resources. The project area was previously graded and developed. There was evidence of tire tracks throughout as well as an existing truck scale/scale house, and unpaved entrance off of Hastain Road, and an existing shade structure and arena seating area (FIGURE 3). Additional photographs from the survey are in *Appendix B*.

FIGURE 3. Survey Ground Visibility

6. Discussion/Interpretation

Due to the lack of identified resources, previously existing recordation nor documentation, it is likely that ground disturbances related to the project will not cause adverse effects to significant cultural resources. Therefore, additional studies or mitigation are not recommended by the authors. As in all projects, if resources were encountered during development, it is expected that the work would stop until additional evaluations could be performed.

However, due to the cultural landscape of the Imperial Valley area, there is indication that future projects could result in the observation of cultural resources. Therefore, Loveless Linton, Inc. encourage further collaboration with qualified archaeologist and Native American representatives in regard to all future work within the County of Imperial. Thus, all city, state and federal Cultural Resource Management guidelines should continue to be followed to ensure proper handling, analysis, preservation, protection, and curation of cultural resources.

The impacts to potential cultural resources of any project in the County of Imperial should always be discussed prior to project design to reduce construction delays and negative impacts to possible resources. With an evaluation of the impact area by qualified individuals, a better understanding of potential discoveries can be accomplished.

7. Management Considerations

The following table was created based on the compliance guidelines provided in the California Environmental Quality Act (CEQA).

Figure 7. CEQA Checklist				
Cultural and/or Historical Resources CEQA Compliance Checklist				
Would the project:	Potentially Significant Impact	Less Than Significant Impact	Less Than Significant with Mitigation	No Impact
Cause a substantial adverse change in the significance of historical resources as defined in §15064.5				X
Cause a substantial adverse change in the significance of cultural resources as defined in §15064.5				X
Cause a substantial adverse change in the significance of paleontological resources as defined in §15064.5				X
Disturb any human remains, including those interred outsides of formal cemeteries?				X

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9. Appendices

A Personnel Qualifications

Rebekah Loveless: Ms. Loveless has over 12 years of field and lab experience in Cultural Resources Management in addition to over 12 years of human osteology experience in San Diego and Imperial Counties. She is a Registered Professional Archaeologist (RPA) with an expertise in regulatory compliance, archaeological field work, cultural sensitivity, and human osteology. She exceeds the Secretary of the Interior's standards for archaeology.

Her diverse roles in many archaeological projects has led her to be well trained in many aspects of the profession. Performance duties include project management, surveys, monitoring, artifact identification and analysis, cataloguing, site assessment, testing, excavation, program development, evaluation for the National and State register, Native American consultation and coordination, mitigation development, peer review, and authorizing compliance documents.

Ms. Loveless is also responsible for writing documents compliant under the California Environmental Quality Act (CEQA) and the National Historic Preservation Act (NHPA). She has worked on both private and public agency projects, including BLM, City of San Diego, San Diego Medical Examiner, San Diego Gas & Electric, local Tribal Governments and regularly communicates with the Native American Heritage Committee (NAHC).

With a strong understanding of environmental regulations and a passion for cultural concerns and project success, Ms. Loveless has developed relationships with all involved parties to cohesively and successfully complete projects of varied sizes and at all stages of developments.

Brandon Linton: Mr. Linton has over 15 years of experience in the field of cultural resources management working as both a Native American monitor and an archaeologist. He is also an active Tribal Member of the Mesa Grande Band of Mission Indians of San Diego, CA. His specializations include Native American cultural resources and concerns, Human Osteology, Cultural Compliance, and Native American lands.

As Cultural Principle Investigator at Loveless Linton, Inc., he has been responsible for an array of tasks that include project development, project management, cultural coordination and consultation, field work, artifact analysis, and repatriation. He developed his archaeological skills by working with knowledgeable archaeologists and participating in all stages of archaeological field work including planning, surveying, excavation, recordation, and analysis.

Mr. Linton is familiar with all governing compliance regulations including California Environmental Quality Act (CEQA), National Historic Preservation Act (NHPA), Native American Graves and Repatriation Act (NAGPRA), Section 106, Senate Bill 18 (SB18), Assembly Bill 52 (AB52), Health and Safety Code (HSC) 7050.5 and relating regulatory codes.

Currently, Mr. Linton focuses on cultural resources management in San Diego, CA, and continues to manage project design, mitigation and mediation, archaeological field work, and monitoring relative to construction activities in both the public and private sectors.

A. Record Search Results

South Coastal Information Center
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-5320
Office: (619) 594-5682
www.scic.org
scic@mail.sdsu.edu

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM
CLIENT IN-HOUSE RECORDS SEARCH

Company: Loveless & Linton

Company Representative: Rebekah Loveless

Date: 8/19/2019

Project Identification: Spread Co

Search Radius: 1/2 mile

Historical Resources: SELF

Trinomial and Primary site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

Previous Survey Report Boundaries: SELF

Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

Historic Addresses: SELF

A map and database of historic properties (formerly Geofinder) has been included.

Historic Maps: SELF

The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

Copies: 620

Hours: 1

This is not an invoice. Please pay from the monthly billing statement

B. Photographs

View south of the northeast corner of the property at the driveway off Hastain

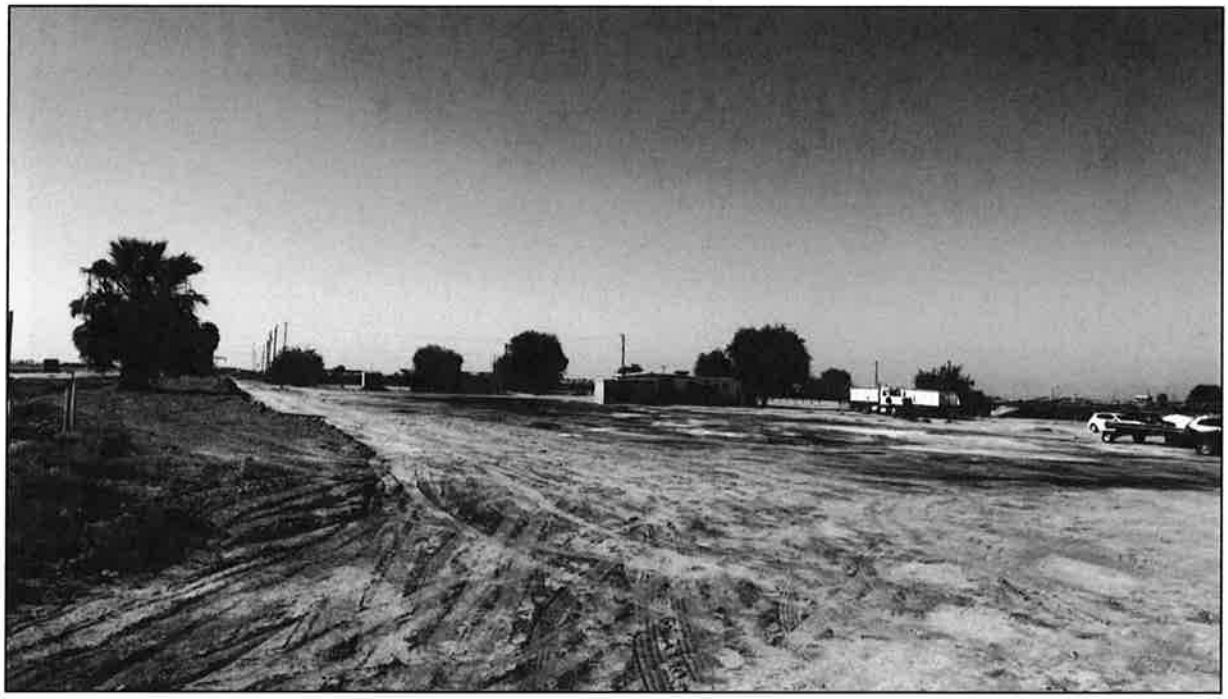


Photo below is of the existing compost facility on the northern portion of the parcel. The Project would expand composting into the currently vacant southern portion of the parcel.

Photos below are the existing structures that will be removed (one trailer, one arena and Conex box). Photo is facing south, looking towards Shank Rd.

Photo below is a plan view looking north from the SW corner of the project area

Photo below is ground conditions observed during the survey.

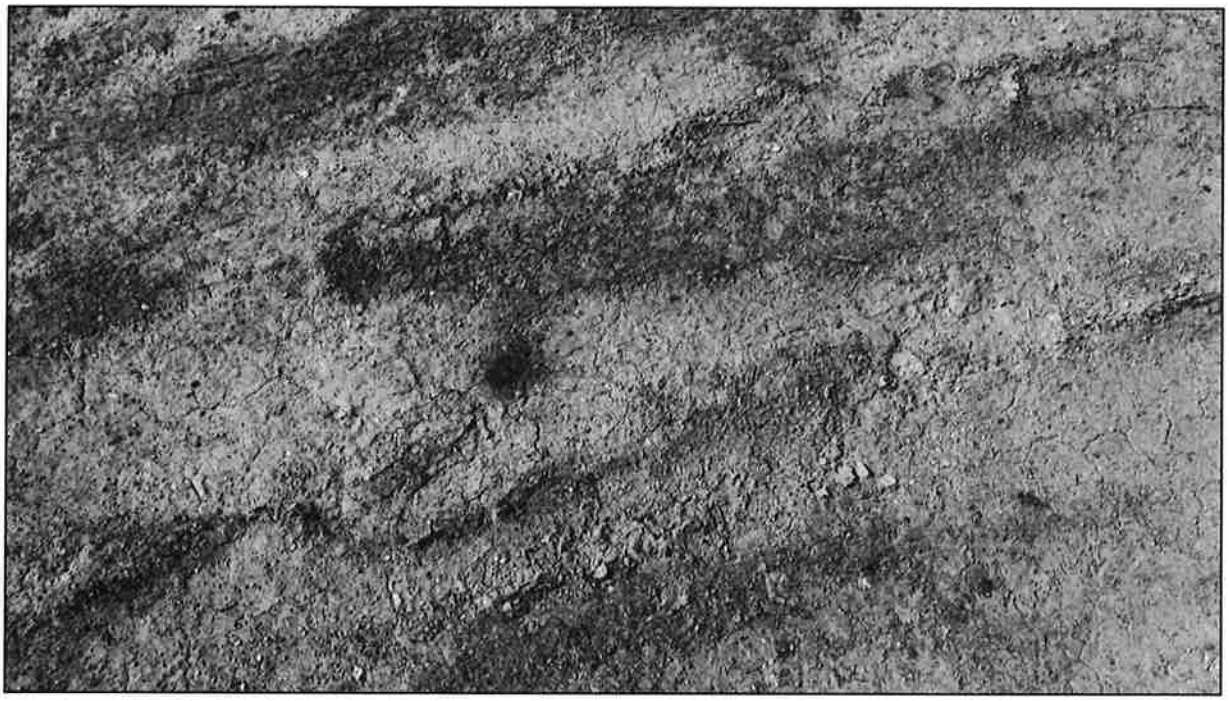
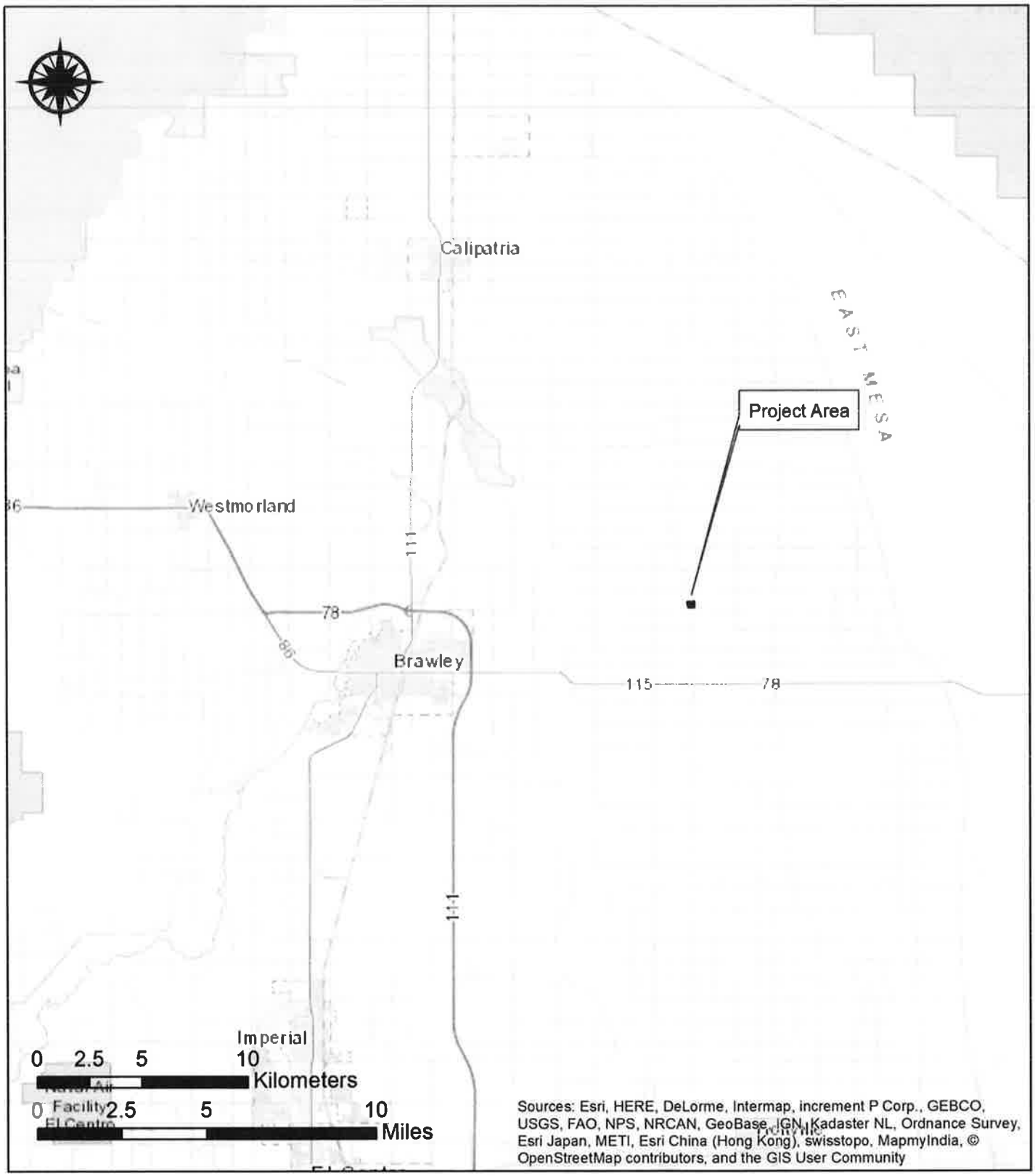


Photo below is from the southwest corner looking east. Photo shows the arenas that will be removed. Removal of the concrete footings and arena material is the most potential ground disturbance that would occur to accommodate the Project.

Close up of arena and concrete footings.

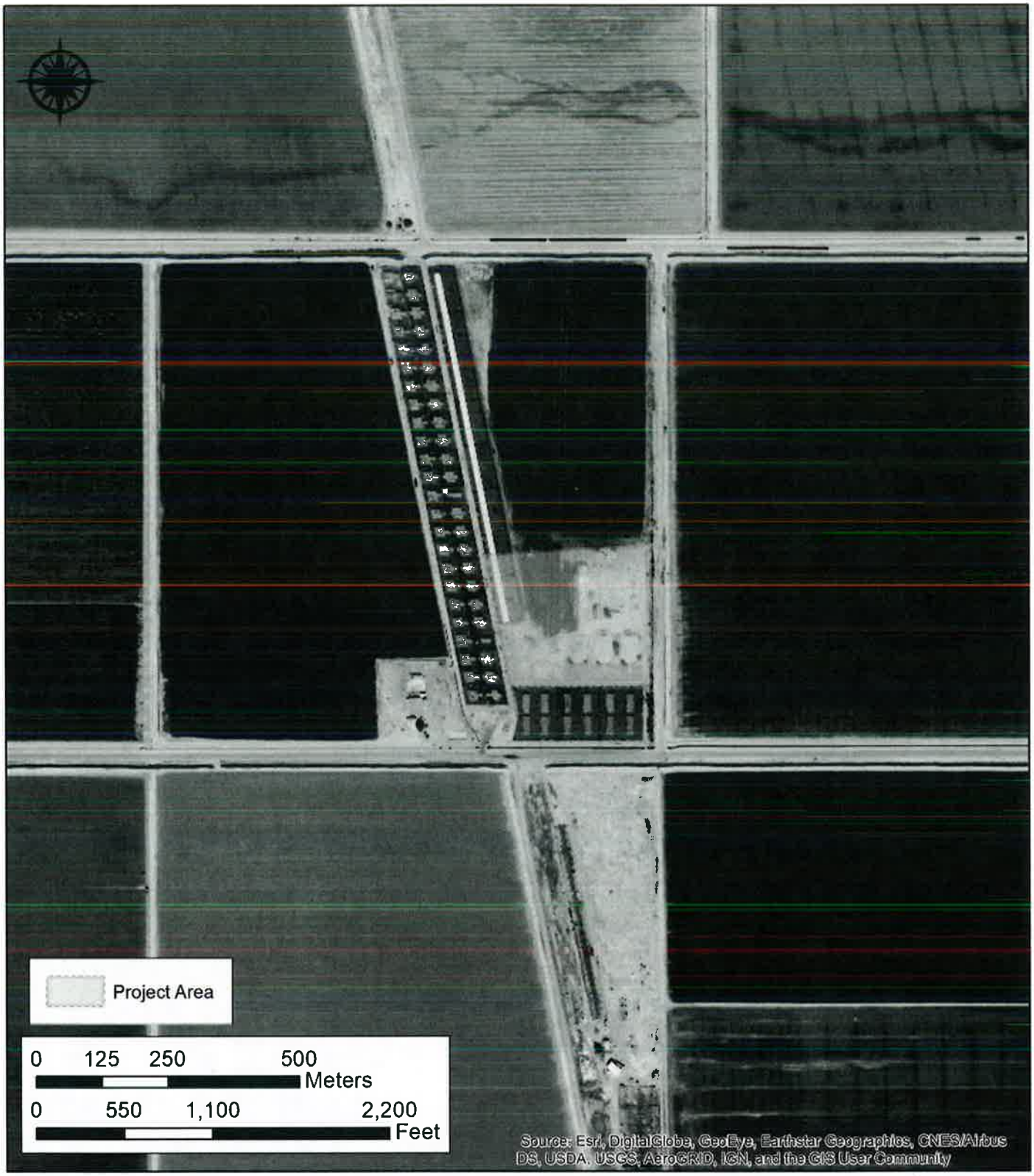
C. Maps and Undertaking Plans

MAP 1. SpreadCo. Expansion Project Regional Topo Map



MAP 2. SpreadCo. Expansion Project Vicinity Map

MAP 3. SpreadCo. Expansion Project Map



MAP 4. SpreadCo. Expansion Project Plans

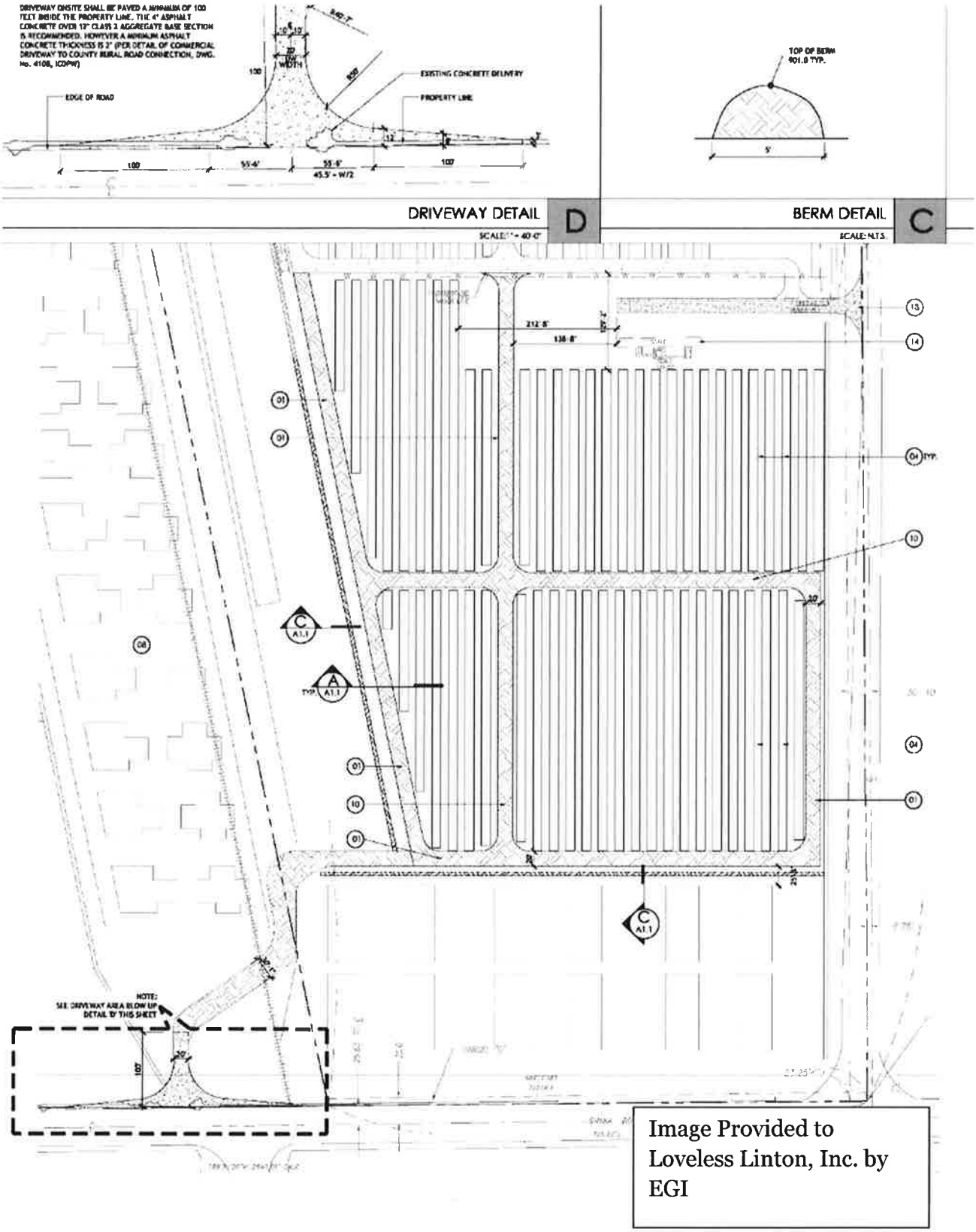


Image Provided to Loveless Linton, Inc. by EGI

TRIP GENERATION ANALYSIS

LOS Engineering, Inc.
Traffic and Transportation

DRAFT

11622 El Camino Real, Suite 100, San Diego, CA 92130
Phone 619-890-1253, Email: justin@losengineering.com

March 19, 2019

Ms. Melanie Halajian
Ericsson-Grant, Inc.
418 Parkwood Lane, Suite 200
Encinitas, CA 92024

Subject: Trip Generation Analysis for the proposed SpreadCo Project in the County of Imperial (proposed expansion to CUP #12-0018)

Dear Ms. Halajian:

LOS Engineering, Inc. is pleased to present this trip generation analysis to determine if a Traffic Impact Study (TIS) is required for the proposed SpreadCo Project in the County of Imperial. The project is the proposed expansion of composting at an existing facility under CUP #12-0018. This letter documents the project's trip generation and thresholds for requiring a traffic study based on the County of Imperial Department of Public Works *Traffic Study and Report Policy* dated March 12, 2007 and revised June 29, 2007.

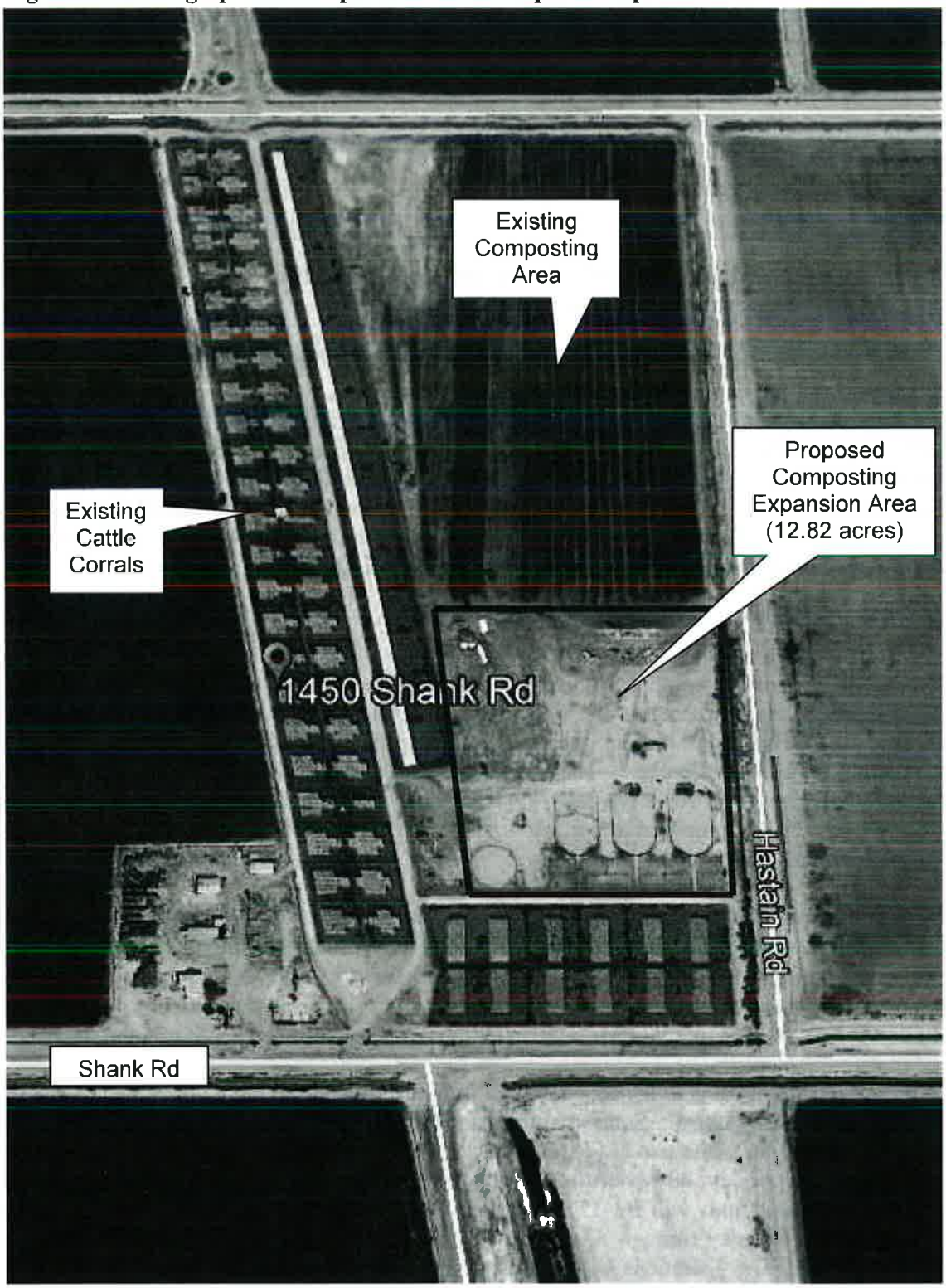
PROJECT LOCATION AND DESCRIPTION

SpreadCo is an existing composting and feed yard that is located on the northwest corner of Shank Road and Hastain Road in the County of Imperial, California. The existing operations (as part of CUP #12-0018) and the proposed expansion of 12.82 acres for additional compositing is shown in **Figure 1**. The proposed layout of the expanded composting windrows (stockpiles of manure in rows typically 12 feet wide by 5 feet high) is shown in **Figure 2**. **Figure 3** shows the proposed driveway improvements on Shank Road that will provide improved project access.

The existing SpreadCo operations import approximately 30,000 tons of Bovine and chicken manure per year and export the completed compost. A maximum of 25 trucks per day are used to bring in manure for composting. The same trucks are used to deliver the completed compost. The hours of operation are Monday through Friday from 6:00 AM to 4:00 PM and Saturday from 6:00 AM to 2:00 PM. The operations currently occur from March through May.

The proposed expansion is to increase the total import of manure to 60,000 tons per year along with export of the compost. Some of the manure will be received from the adjacent cattle corrals located on the same parcel (i.e. ButterSpur Cattel Feed Yard). The average number of trucks will be 25 per day; however, to analyze a conservative scenario and to account for peak operations the maximum will be 32 trucks per day. The hours of operations will remain unchanged with Monday through Friday from 6:00 AM to 4:00 PM and Saturday from 6:00 AM to 2:00 PM. The operations will expand to include the months of June through February while maintaining the maximum of 32 truck per day.

Figure 1: Existing SpreadCo Operations and Proposed Expansion



Source: EGI

Figure 2: Project Site Plan

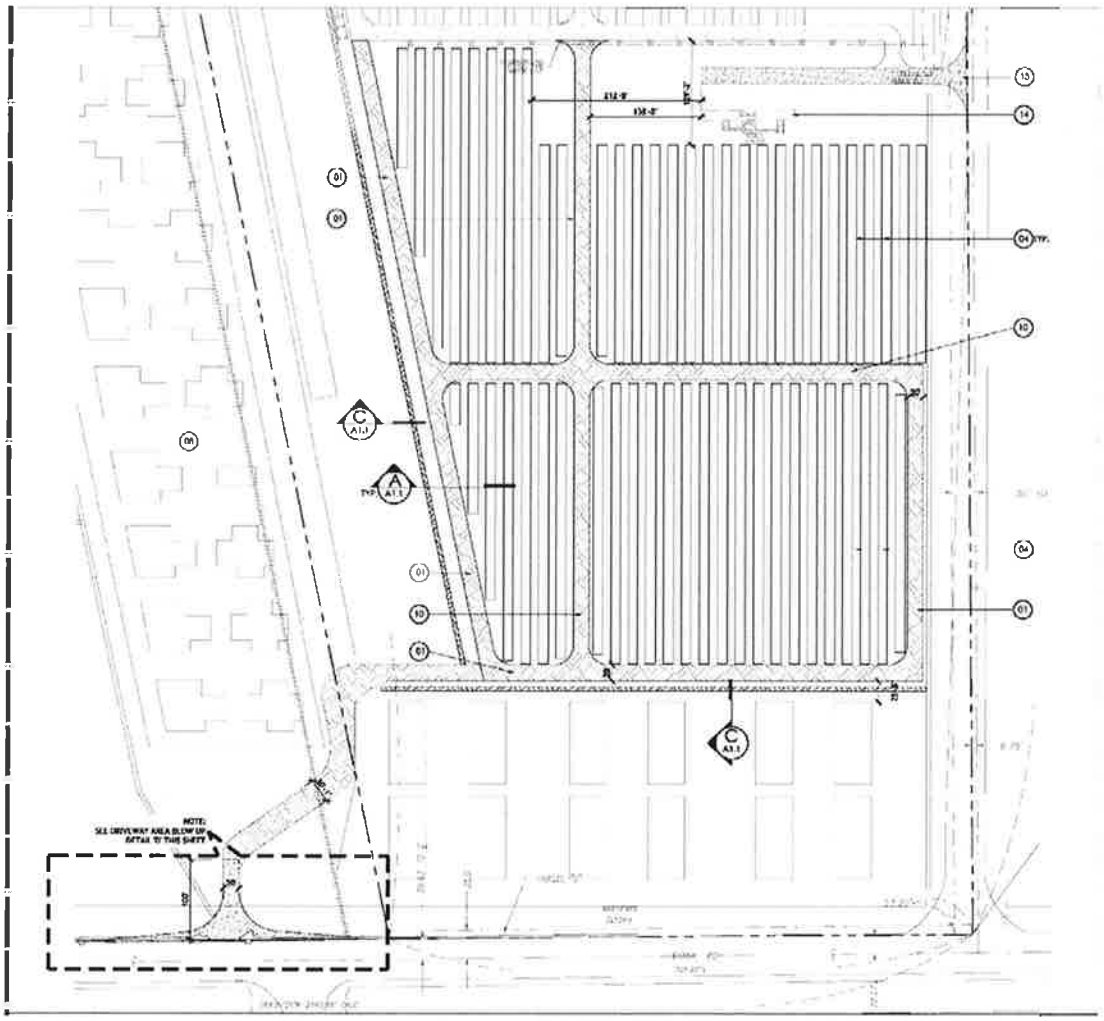
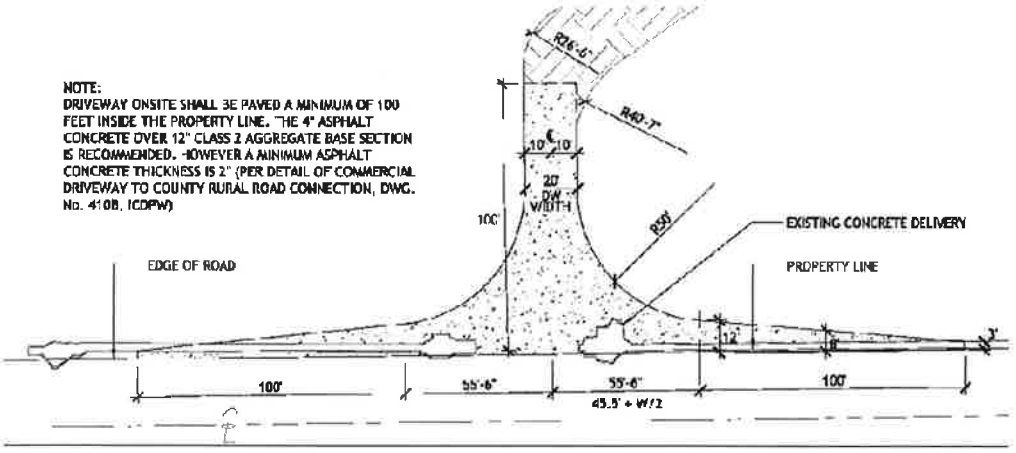


Figure 3: Proposed Driveway Improvements on Shank Road



PROJECT TRIP GENERATION

The existing operations have a maximum of 3 daily employees and a maximum of 25 daily Class 8 trucks for manure import and compost export. The 25 daily truck deliveries are spread throughout the day. On average, the morning and evening commuter peaks have 2.5 trucks per hour (25 trucks/10 hours of operation from 6 AM to 4 PM), which is rounded up to 3 trucks per hour. A Passenger Car Equivalent (PCE) factor is applied to the Class 8 trucks to provide an equivalent number of passenger cars for comparison purposes. A Class 8 truck with 3 inbound peak hour trips would equal 9 PCE inbound peak hour trips.

The proposed operations will have the same number of employees (3 daily employees) and a conservative maximum of 32 daily Class 8 trucks for manure and compost movement. The 32 daily truck trips are spread throughout the day. On average, the morning and evening commuter peaks will have 3.2 trucks per hour (32 trucks/10 hours of operation from 6 AM to 4 PM), which is rounded down to 3 trucks per hour. The same PCE factor is applied to the Class 8 trucks to provide an equivalent number of passenger cars for comparison.

The annual increase in manure import and compost export is calculated to have no increases in peak hour traffic over what is currently occurring with the existing composting operation. There will be an increase of 7 daily truck trips or 42 Average Daily Trips (ADT) as shown in **Table 1**.

Table 1: Existing and Proposed Project Trip Generation

Trip Generation Source	Daily Vehicles	ADT with PCE[2]	Morning Peak IN	Morning Peak OUT	Evening Peak IN	Evening Peak OUT
Existing Operations						
Employees (up to 3 with no PCE)[1]	3	6	3	0	0	3
Manure and Composting Trucks (max 25/day with PCE of 3)[2]	25	150	9	9	9	9
Proposed Operations						
Employees (up to 3 with no PCE)[1]	3	6	3	0	0	3
Manure and Composting Trucks (max 32/day with PCE of 3)[2]	32	192	9	9	9	9
Increase between Existing and Proposed	**7**	**42**	**0**	**0**	**0**	**0**

ADT: Average Daily Trips. PCE: Passenger Car Equivalent factor of 3 applied to delivery trucks to provide an equivalent number of passenger cars. 1) Number of existing and proposed workers provided by applicant. No PCE applied due to being personal vehicles and not commercial trucks. 2) Passenger Car Equivalent (PCE) factor of 3 applied to each commercial truck.

COUNTY OF IMPERIAL TRAFFIC IMPACT STUDY CRITERIA

The criteria for the need to prepare a Traffic Impact Study are documented in the County of Imperial Department of Public Works *Traffic Study and Report Policy* dated March 12, 2007 and revised June 29, 2007. A copy of the policy is included in **Attachment A**. There are several policy criteria for requiring a traffic study. Policy Section C.1.b states that any project that generates more than 400 daily residential trip ends, 800 commercial or industrial trip ends or 200 peak hour trip ends, as determined by the average trip rates contained in the ITE Trip Generation Informational Report or the Imperial County local exceptions in Section 2. The proposed project is calculated to increase the daily traffic by 42 commercial trip ends, which is below the 800 commercial trip end threshold; therefore, a traffic study is not recommended for the small increase in daily trips.

CONCLUSION

SpreadCo is an existing composting and feed yard that is located on the northwest corner of Shank Road and Hastain Road in the County of Imperial, California. The existing facility (as part of CUP #12-0018) operates with a maximum of 25 trucks per day to bring in manure for composting and to export compost. The hours of operation are Monday through Friday from 6:00 AM to 4:00 PM and Saturday from 6:00 AM to 2:00 PM. The operations currently occur from March through May. The existing operations import approximately 30,000 tons of manure and associated compost export.

The proposed expansion of 12.82 acres for additional compositing will have a conservative maximum of 32 trucks per day during peak operations. The hours of operations will remain unchanged with Monday through Friday from 6:00 AM to 4:00 PM and Saturday from 6:00 AM to 2:00 PM. The operations will expand to include the months of June through February while maintaining the maximum of 32 truck per day. The proposed operations will increase the import to approximately 60,000 tons of manure and compost export.

The annual increase in manure import and compost export is calculated to have no increases in peak hour traffic over what is currently occurring with the existing composting operation. There will be an increase of 7 daily trucks or 42 Average Daily Trips with the proposed composting expansion.

The criteria for the need to prepare a Traffic Impact Study are documented in the County of Imperial Department of Public Works *Traffic Study and Report Policy*. The proposed project is calculated to increase the daily traffic by 42 commercial trip ends, which is below the 800 commercial trip end threshold; therefore, a traffic study is not recommended for the small increase in daily trips.

Sincerely,
LOS Engineering, Inc.

Justin Rasas

Justin Rasas, P.E.(RCE 60690), PTOE
Principal and Officer of LOS Engineering, Inc.

Attachments

ATTACHMENT A

COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS *TRAFFIC STUDY AND REPORT POLICY*

BOS Approved 08-07-07
M.O. #37

COUNTY OF IMPERIAL

DEPARTMENT OF PUBLIC WORKS

TRAFFIC STUDY AND REPORT POLICY

Date: March, 12, 2007

Revised June 29, 2007

APPROVALS:

WILLIAM S. BRUNET, P. E.
DIRECTOR OF PUBLIC WORKS
ROAD COMMISSIONER

JURG HEUBERGER
PLANNING DIRECTOR

necessary to develop a traffic report that determines whether the traffic study general criteria have been met.

In the case of significant development, it may be necessary to hold one or more scope of work meetings which would be attended by a ICPDS staff, the County Traffic Engineer or other County Advisory Staff, the individual who will be responsible for preparing the traffic study report and the Traffic and/or Civil Engineer responsible for the report and its recommendations. The individual preparing the traffic study should be familiar with the project site and the local conditions which may affect any final conclusions and recommendations.

Listed below are the basic criteria that will be used to make the determination for providing a complete traffic study as a part of the project review process. The criteria are not a complete or exhaustive list, but they are intended to define when such a report is to be prepared and to indicate the necessary components of the study report to be submitted.

1. General Criteria

a. Any project that adds more than 8% of the total existing vehicle trips on the adjacent road system at full build-out of the project.

b. Any project that generates more than 400 daily residential trip ends, 800 commercial or industrial trip ends or 200 peak hour trip ends, as determined by the average trip rates contained in the ITE Trip Generation Informational Report or the **Imperial County local exceptions in Section 2.**

c. Any project that has the potential to degrade an existing road section, an existing signalized intersection, or an existing unsignalized intersection to below the existing level of service or to cause it to be lower than a level of service (LOS)

AIR QUALITY STUDY

Air Quality Study

SpreadCo, Inc. at ButterSpur Cattle Feed Yards

Imperial County, California

Prepared for:

Ericsson-Grant, Inc.
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Carlsbad, CA 92008

Prepared by:

OB-1
AIR ANALYSES

March 2019 (Revised June 2019)

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Acronyms and Abbreviations

$\mu g/m^3$	microgram per cubic meter
AAQS	ambient air quality standards
APN	Assessor's Parcel Number
AQS	Air Quality Study
AQA2013	Air Quality Analysis, February 2013
AQMP	Air Quality Management Plan
BACM	Best Available Control Measure
BACT	Best Available Control Technology
BMP	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CalEEMod®	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
CAR	Climate Action Reserve
CARB	California Air Resources Control Board
CCORP	Comprehensive Compost Odor Response Project
CEC	California Energy Resources Conservation & Development Commission
CEQA	California Environmental Quality Act
CERF	compost emission reduction factor
CH_4	methane
CIWMB	California Integrated Waste Management Board
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
CUP	Conditional Use Permit
EI	emission inventory
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESRL	Earth System Research Laboratory
FCAA	Federal Clean Air Act
GHG	greenhouse gas
GWP	global warming potential
ICAPCD	Imperial County Air Pollution Control District
IPCC	International Panel on Climate Change
LCAF	Large Confined Animal Facilities
M	million
$MtCO_2e$	million tonnes of CO_2e
NAAQS	National Ambient Air Quality Standards
NH_3	ammonia
NH_4NO_3	ammonium nitrate

Acronyms and Abbreviations

NO	nitric oxide
NOAA	National Oceanic and Atmospheric Administration
N_2O	nitrous oxide
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
PM	particulate matter
PM_{10}	respirable particulate matter of 10 micrograms or less in size
PM_{10} SIP	PM_{10} State Implementation Plan
$PM_{2.5}$	fine particulate matter of 2.5 micrograms or less in size
ppm	parts per million
RACM	Reasonable Available Control Measures
RFP	Reasonable Further Progress
ROG	reactive organic gases
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO_2	sulfur dioxide
t	abbreviation for tonne (or metric ton)
TAC	toxic air contaminants
tCO_2e	tonne of carbon dioxide equivalents
TGNMOC	total gaseous non-methane organic compounds
tonne	metric ton (1.102 U.S. tons)
tpy	tons per year
VOC	volatile organic compounds
WRI	World Resources Institute

SECTION 1.0 – INTRODUCTION

1.1. REPORT PURPOSE

The purpose of this Air Quality Study (AQS) is to estimate operational emissions from proposed expansion of operations at SpreadCo's ButterSpur Composting Facility located east of Brawley in Imperial County, California. The California Environmental Quality Act (CEQA) Section 15063 requires the analysis of all phases of a proposed project.

1.2. PROJECT LOCATION

SpreadCo's ButterSpur Composting Facility (Facility) is located on a 75.9-acre property owned by ButterSpur Cattle Feeders, with 22.41 acres for a feed lot, at 1450 Shank Road, approximately six miles east-northeast of Brawley, California in Imperial County (APN #038-170-017), with access via Shank Road. **Figure 1** shows the vicinity of the Facility and **Figure 2** shows the specific location.

Figure 1 – Vicinity

1.3. BACKGROUND INFORMATION

1.3.1 Composting

Composting is a decomposition process that converts an initial feedstock of organic waste (such as manure from livestock) into an organic-rich soil mixture called compost. Compost application to soil systems has many benefits, which include, but are not limited to, increased soil carbon concentrations, decreased density, increased porosity, increased resistance to erosion and pests, and decreasing the use of synthetic fertilizers.

Figure 2 – Location

1.3.2 Current Operations

The current composting operations occupy 40.67 acres of the 75.9-acre property owned by ButterSpur Cattle Feeders and per Imperial County Conditional Use Permit (CUP) 2012-0018, the total allowed capacity is 30,000 wet tons of bovine and poultry manure per year, with a peak of 800 wet tons per day and a daily average of 475 wet tons per day. The composting facility accepts manure from the ButterSpur Feed Yard immediately adjacent to the Facility (ButterSpurE) and another ButterSpur site approximately 5.6 miles west of the Facility on Shank Road (ButterSpurW). Additionally, this facility receives bovine manure from feedlots within a fifteen-mile radius and 5,000 tons per year of poultry manure. Feedlots supplying raw product include several Superior Cattle's satellite yards, i.e. the Kershaw, Hannon, Beef Feeder, and Slater yards; and Reata Cattle. In addition, if necessary, to complete their yearly quota, they consider product from Superior Cattle's main feedlot and Brant Cattle.

Following is a general location of the feed yards and the routes SpreadCo uses in hauling from these bovine feed lots/cattle yards to Facility (also shown in **Figure 3**).

- **Kershaw Feed Lot** is located on Kershaw Road north of Rutherford Road. The hauling route is south of Kershaw Road; east on Rutherford Road; south on Highway 115; east on Shank Road; and then into the Facility.

- **Hannon Feed Yard** is located on Rutherford Road between Kershaw Road and Dietrich Road. The hauling route is east on Rutherford Road; south on Highway 115; east on Shank Road; and then into the Facility.
- **Superior Main** is located on Dowden Road, west of Kershaw Road. The hauling route is west on Dowden Road; south on Highway 111; east on Rutherford Road; south on Highway 115; east on Shank Road; and then into the Facility.
- **Cameiro Heifer Ranch** is located on West Carey Road, between North Imperial Avenue and Dogwood Road. The hauling route is east on West Carey Road; north on Dogwood Road; east on Schartz Road; north on Old Highway 111/North Best Avenue; east on Shank Road; and then into the Facility.

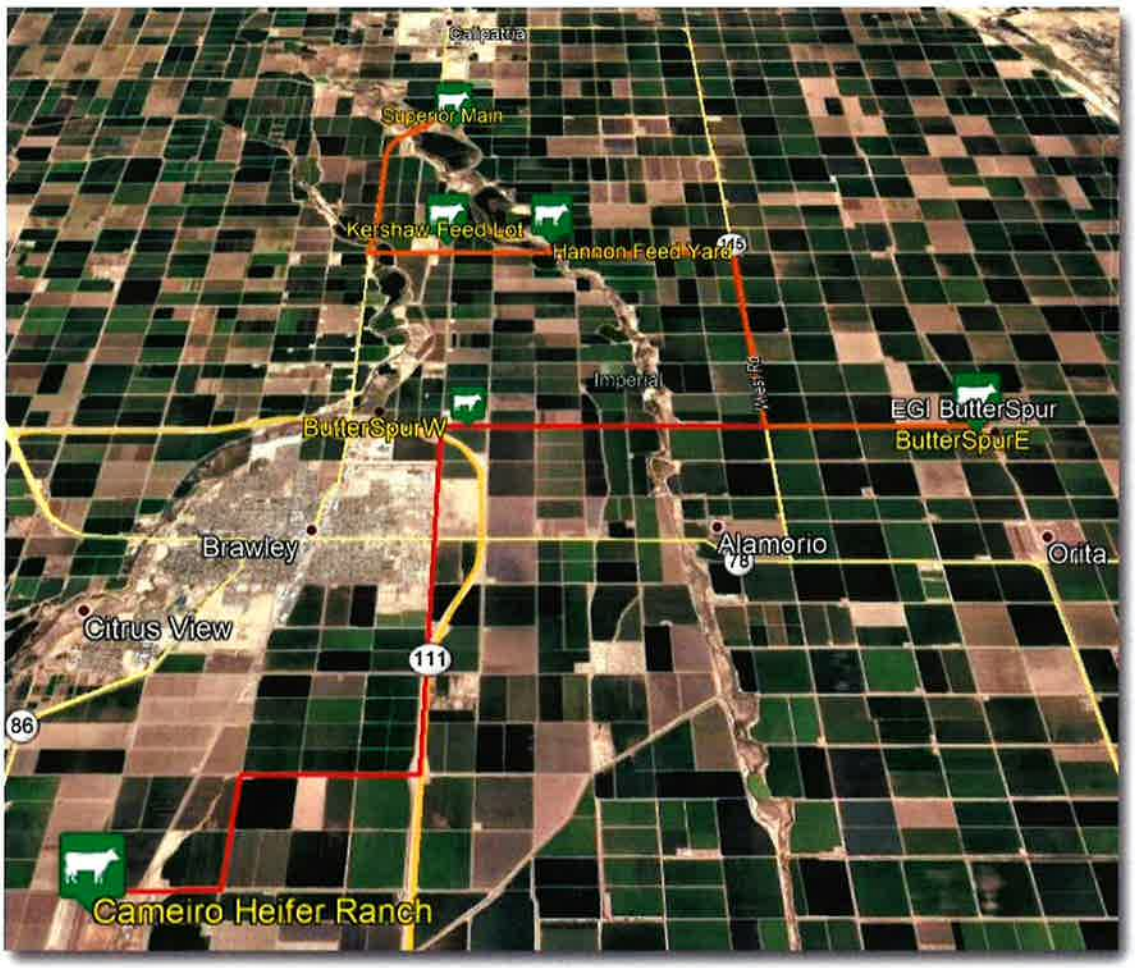

Figure 3 – Bovine Truck Routes to ButterSpur Facility

In addition to bovine manure, the Facility procures poultry manure from the Pine Hill Egg Ranch, approximately 6 miles northeast of Ramona in San Diego County, to be added to the Facility (also shown in **Figure 4**). SpreadCo is currently allowed up to 5,000 tons per year, which they bring approximately three loads per day during March thru May.

Figure 4 – Poultry Truck Route to ButterSpur Facility

The Facility currently operates from 6 am to 4 pm Monday thru Friday and from 6 am to 2 pm on Saturday during the busy season, which is from June thru October. The Facility uses Commercial Class 8 trucks with double trailers equipped with hydraulic side dumping.

The Facility stockpiles the manure in windrows 12 feet wide, 5 feet tall, and 1,200 feet in length. The Facility uses two wheeled loaders to offload the manure and a Scarab 234 horsepower self-propelled compost turner to create the windrows. Once the windrows are constructed, it takes approximately 60 days for the composting process to be completed. The microorganisms that transform manure into compost require oxygen for their energy-deriving chemical reactions. Less than 5 percent of oxygen within the pore space will turn the pile anaerobic (without oxygen), may create a rotten-egg smell and will slow the composting process. Aerobic conditions can be replenished by turning the pile. The Facility turns the windrows periodically with the compost turner. In addition, water management is important in compost because 40 to 65 percent of the pore space in composting materials should have water. Water is supplied by an agricultural pump. After the heating cycles have subsided, compost is piled for storage while awaiting field applications. This month long or longer process is known as curing. After processing, the product is distributed to various local farmers in Imperial Valley.

An Air Quality Analysis[1] was conducted in 2013 (AQA2013) by OB-1 Air Analyses as a part of the original CUP.

1.3.3 Proposed Expanded Operations

SpreadCo is proposing an increase of permitted annual throughput volumes for both bovine and poultry manure, which would yield an overall increase in compost product for distribution. **Table 1** shows the current, proposed, and resultant increase in annual wet tons per year of received product.

However, the expansion plan will not increase daily operations but will instead allow for more consistent operation throughout the year. Since with the current operations, the facility has long periods of down time where equipment will not be in use, SpreadCo concludes that Facility daily on-site operations would remain

[1] *Air Quality Impact Analysis: SpreadCo Composting Facility, Imperial County, California.* OB-1 Air Analyses. February 2013.

the same. **Table 1** shows no increase in daily volumes is proposed, however SpreadCo proposes to analyze worst-case conditions and use a maximum of 32 trucks per day entering the composting facility to pick up and or deliver materials. The primary on-site changes would be more consistent operations throughout the year and maximizing yards per hour through the compost tuner due to longer windrows. Ingress and egress to the facility will be located on Shank Road.

Table 1 – Proposed Increase on Operations

Category	Operations		
	Current	Proposed	Increase
Annual Volume Received (wet tons/year)			
Bovine	25,000	40,000	15,000
Poultry	5,000	20,000	15,000
Total	***30,000***	***60,000***	***30,000***
Daily Volume Received (wet tons/day)			
Bovine	375	375	0
Poultry	100	100	0
Total	***475***	***475***	***0***

SpreadCo states that this proposed expansion CUP would increase the current long-term benefits for other feedlots in the area that do not have the land to compost on their own property. This project will provide an outlet for feedlots to compost their manures.

SECTION 2.0 – EXISTING CONDITIONS

Air quality is determined primarily by the type and number of contaminants emitted into the atmosphere, the size and topography of the air basin, and its meteorological conditions. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollution emissions and air quality.

2.1. CLIMATE/METEOROLOGY

Meteorology is the study of weather and climate. Weather refers to the state of the atmosphere at a given time and place regarding temperature, air pressure, humidity, cloudiness, and precipitation. The term "weather" refers to conditions over short periods; whereas conditions over extended periods, generally at least 30 to 50 years, are referred to as climate. Climate, in a narrow sense, is usually defined as the "average weather," or more rigorously as the statistical description in terms of the mean and variability of relevant quantities over a period ranging from months to thousands or millions of years. These quantities are most often surface variables such as temperature, precipitation, and wind.

Climatic conditions in Imperial County are governed by the large-scale sinking and warming of air in the semi-permanent tropical high-pressure center of the Pacific Ocean. The high-pressure ridge blocks out most mid-latitude storms except in winter when the high is weakest and farthest south. The coastal mountains prevent the intrusion of any cool, damp air found in California coastal environs. Because of the weakened storms and barrier, Imperial County experiences clear skies, extremely hot summers, mild winters, and little rainfall. The flat terrain of the valley and the strong temperature differentials created by intense solar heating, produce moderate winds and deep thermal convection.

The combination of subsiding air, protective mountains, and distance from the ocean all combine to limit precipitation severely. Rainfall is highly variable with precipitation from a single heavy storm sometimes exceeding the entire annual total during a later drought condition.

Imperial County enjoys a year-round climate characterized by a temperate fall, winter, and spring and a harsh summer. Humidity often combines with the valley's normal high temperatures to produce a moist, tropical atmosphere that frequently seems hotter than the thermometer suggests. The sun shines, on the average, more in the Imperial County that anywhere else in the United States.

2.1.1 Temperature and Precipitation

The nearest National Weather Service Cooperative Observer Program weather station to the project is the station in El Centro called El Centro 2 SSW, located approximately 4 miles north-northeast of the Project. At the El Centro 2 SSW[2] Station, average recorded rainfall during the Period of Record (1932 to 2016) measured 2.64 inches, with 71 percent of precipitation occurring between October and March and 31 percent in just December and January. Monthly average maximum temperatures at this station vary annually by 38.1 degrees Fahrenheit (°F); 108 °F at the hottest to 69.9 °F at the coldest and monthly average minimum temperatures vary

[2] *Western U.S. Climate Historical Summaries.* Western Regional Climate Center. http://www.wrcc.dri.edu/Climsum.html. Accessed February 2019.

by 36.2 °F annually; i.e. from 40.1 °F to 76.3 °F. In fact, this station shows that the months of June, July, August, and September have monthly maximum temperatures greater than 100 °F.

2.2. LOCAL AIR QUALITY CONDITIONS

2.2.1 Criteria Air Pollutants

As required by the Federal Clean Air Act (FCAA), the U.S. Environmental Protection Agency (EPA) has identified criteria pollutants and established National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide, suspended particulate matter (PM), and lead. Suspended PM has standards for both PM with an aerodynamic diameter of 10 microns or less (respirable PM, or PM_{10}) and PM with an aerodynamic diameter of 2.5 microns or less (fine PM, or $PM_{2.5}$). The California Air Resources Board (CARB) has established separate standards for the State, i.e. the California Ambient Air Quality Standards (CAAQS). The CARB established CAAQS for all the federal pollutants and sulfates, hydrogen sulfide, and visibility-reducing particles.

For some of the pollutants, the identified air quality standards are expressed in more than one averaging time in order to address the typical exposures found in the environment. For example, CO is expressed as a one-hour averaging time and an eight-hour averaging time. Regulations have set NAAQS and CAAQS limits in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). **Table 2** summarizes the State and federal ambient air quality standards for all criteria pollutants.

2.2.1.1 Pollutants of Concern

Ozone

Ozone is not emitted directly to the atmosphere but is formed by photochemical reactions between reactive organic gases (ROG), or volatile organic compounds[3] (VOC), and oxides of nitrogen (NO_X) in the presence of sunlight. The long, hot, humid days of summer are particularly contributing to ozone formation; thus, ozone levels are of concern primarily during the months of May through September.

- Reactive organic gases (ROG) are defined as any compound of carbon, excluding CO, carbon dioxide (CO_2), carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participate in atmospheric photochemical reactions. It should be noted that there are no State or national ambient air quality standards for ROG; therefore, ROGs are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemical reactions that contribute to the formulation of ozone. ROGs are also transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
- Nitrogen oxides (NO_X) serve as integral participants in the process of photochemical smog production. The two major forms of NO_X are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high

[3] Emissions of organic gases are typically reported only as aggregate organics, either as Volatile Organic Compounds (VOC) or as Reactive Organic Gases (ROG). These terms are meant to reflect what specific compounds have been included or excluded from the aggregate estimate. Although EPA defines VOC to exclude both methane and ethane, and CARB defines ROG to exclude only methane, in practice it is assumed that VOC and ROG are essentially synonymous.

temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_X is an ozone precursor, which is a directly emitted air contaminant that, when released into the atmosphere, forms, causes to be formed, or contributes to the formation of a secondary air contaminant for which an Ambient Air Quality Standard (AAQS) has been adopted, or whose presence in the atmosphere will contribute to the violation of one or more AAQSs. When NO_X and ROG are released in the atmosphere, they can chemically react with one another in the presence of sunlight to form ozone.

Table 2 – National and State Ambient Air Quality Standards[4]

Air Pollutant	Averaging Time	California Standard	National Standard
Ozone	1 hour	0.09 ppm	—
	8 hour	0.070 ppm	0.070 ppm
Respirable particulate matter (PM_{10})	24 hour	50 µg/m³	150 µg/m³
	Mean	20 µg/m³	—
Fine particulate matter ($PM_{2.5}$)	24 hour	—	35 µg/m³
	Mean*	12 µg/m³	12.0 µg/m³
Carbon monoxide (CO)	1 hour	20 ppm	35 ppm
	8 hour	9.0 ppm	9 ppm
Nitrogen dioxide (NO_2)	1 hour	0.18 ppm	0.100 ppm
	Mean	0.030 ppm	0.053 ppm
Sulfur dioxide	1 hour	0.25 ppm	0.075 ppm
	24 hour	0.04 ppm	0.14 ppm **
	Mean	—	0.030 ppm **
Lead	30-day	1.5 µg/m³	—
	Rolling 3-month	—	0.15 µg/m³
	Quarter	—	1.5 µg/m³
Sulfates	24 hour	25 µg/m³	**No Federal Standard**
Hydrogen sulfide	1 hour	0.03 ppm	
Vinyl chloride	24 hour	0.01 ppm	
Visibility-reducing particles	8 hour	Extinction coefficient of 0.23 per kilometer, visibility of ten miles or more due to particles when relative humidity is less than 70%.	

Abbreviations:
ppm = parts per million µg/m³ = micrograms per cubic meter

* Mean = Annual Arithmetic Mean

** On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

4 *Ambient Air Quality Standards.* California Air Quality Board. May 1, 2016. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed February 2019.

Ozone is a strong chemical oxidant that adversely impacts human health through effects on respiratory function. Ozone can also damage forests and crops. Ozone is not emitted directly by industrial sources or motor vehicles but instead, is formed in atmosphere. Tropospheric[5] ozone is formed by a complex series of chemical reactions involving NO_X, the result of combustion processes and evaporative ROGs such as industrial solvents, toluene, xylene, and hexane as well as the various hydrocarbons that are evaporated from the gasoline used by motor vehicles or emitted through the tailpipe following combustion. Additionally, ROGs are emitted by natural sources such as trees and crops. Ozone formation is promoted by strong sunlight, warm temperatures, and winds. High concentrations tend to be a problem in the Imperial County only during the hot summer months when these conditions frequently occur.

Particulate matter (PM)

PM is a general term used to describe a complex group of airborne solid, liquid, or semi-volatile materials of various size and composition. Primary PM is emitted directly into the atmosphere from both human activities (including agricultural operations, industrial processes, construction and demolition activities, and entrainment of road dust into the air) and natural activities (such as windblown dust and ash resulting from forest fires). Secondary PM is formed in the atmosphere from predominantly gaseous combustion by-product precursors, such as sulfur oxides and NO_X, and ROGs. The overwhelming majority of airborne PM in Imperial County is primary PM. The major source of primary PM is fugitive windblown dust, with other contributions from entrained road dust, farming, and construction activities.

Particle size is a critical characteristic of PM that primarily determines the location of its deposition during inhalation along the respiratory system (and associated health effects) as well as the degradation of visibility through light scattering. In the United States, federal and State agencies have established two types of PM air quality standards as shown in **Table 2.** PM_{10} corresponds to the fraction of PM no greater than 10 micrometers in aerodynamic diameter and is commonly called respirable particulate matter, while $PM_{2.5}$ refers to the subset of PM_{10} of aerodynamic diameter smaller than 2.5 micrometers, which is commonly called fine particulate matter.

PM air pollution has undesirable and detrimental environmental effects also. PM affects vegetation, both directly (e.g. deposition of nitrates and sulfates may cause direct foliar damage) and indirectly (e.g. coating of plants upon gravitational settling reduces light absorption). PM also accumulates to form regional haze, which reduces visibility due to scattering of light.

PM_{10} is respirable, with fine and ultrafine particles[6] reaching the alveoli deep in the lungs, and larger particles depositing principally in the nose and throat area. PM_{10} deposition in the lungs results in irritation that triggers a range of inflammation responses, such as mucus secretion and bronchoconstriction, and exacerbates pulmonary dysfunctions, such as asthma, emphysema, and chronic bronchitis. Sufficiently small particles ($PM_{2.5}$ and ultrafines) may penetrate the bloodstream and impact functions such as blood coagulation, cardiac autonomic control, and mobilization of inflammatory cells from the bone marrow. Individuals susceptible to higher health risks from exposure to PM_{10} airborne pollution include children, the elderly, smokers, and people

5 The troposphere is the atmospheric layer closest to the Earth's surface. Ozone produced here is an air pollutant that is harmful to breathe, and it damages crops, trees and other vegetation.

6 Ultrafine particles (UFPs) are nanoscale, less than 100 nanometers. Regulations do not currently exist for this size class of ambient air pollution particles, which are far smaller than the regulated PM_{10} and $PM_{2.5}$ particle classes and are believed to have several more aggressive health implications than those classes of larger particulates.

of all ages with low pulmonary/cardiovascular function. For these individuals, adverse health effects of PM_{10} pollution include coughing, wheezing, shortness of breath, phlegm, bronchitis, and aggravation of lung or heart disease, leading for example to increased risks of hospitalization and mortality from asthma attacks and heart attacks.

2.2.1.2 Other Criteria Pollutants

The standards for other criteria pollutants are either being met or are unclassified in the County, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future.

2.2.2 Ammonia

Ammonia (NH_3) is addressed in the 2013 $PM_{2.5}$ SIP[7] due to NH_3's role as a precursor to PM_{10}, specifically the wintertime violations. The cooler temperatures and higher humidity of the winter months are conducive to ammonium nitrate (NH_4NO_3) formation through a complex process involving NO_X, NH_3, and ROGs. This occurs both at the surface and aloft, via both daytime and nighttime chemistry. Understanding the interactions amongst these precursors is needed to design an appropriate and effective approach to reduce NH_4NO_3.

2.2.3 Pollutant Transport

As stated above, ozone is a "secondary" pollutant, formed in the atmosphere by reactions between NO_X and ROG. These reactions are driven by sunlight and proceed at varying rates. Transport is the movement of ozone or the pollutants that form ozone from one area (known as the upwind area) to another area (known as the downwind area). Pollutant transport is a very complex phenomenon. Sometimes transport is a straightforward matter of wind blowing from one area to another at ground level, carrying ozone with it, but usually it is not that simple. Transport is three-dimensional; it can take place at the surface, or high above the ground. Meteorologists use the terms "surface" and "aloft" to distinguish these two cases. Often, winds can blow in different directions at different heights above the ground. To complicate matters further, winds can shift during the day, pushing a polluted air mass first one way, then another. Finally, because ozone and ozone forming emissions from an upwind area can mix with locally generated ozone and locally generated emissions, it is often difficult to determine the origin of the emission causing high pollution levels. Political boundaries do not prevent transport of pollutants. Transport over distances of several hundred miles has often been documented in California.

The accurate determination of the impacts of transport requires detailed technical analyses in conjunction with modeling studies. The Imperial County Air Quality Management Plan[8] (AQMP) identifies how the transport of emissions and pollutants from Mexico and other areas (South Coast and San Diego) impact ozone violations within Imperial County. Although the Imperial County is currently in attainment of the 1997 8-hour ozone NAAQS, it is important to note that any future analysis of air emissions impacting Imperial County must take into consideration the influence of transport from three distinct sources, that of the South Coast Air Basin via the Coachella Valley to the north, the San Diego Air Basin to the west and the city of Mexicali, Mexico to the south.

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7 *Imperial County 2013 SIP for the 2006 24-hr PM2.5 Moderate Nonattainment Area.* Imperial County Air Pollution Control District. December 2, 2014.

8 *Final 2009 1997 8-Hour Modified Air Quality Management Plan.* Imperial County Air Pollution Control District. July 13, 2010.

2.2.4 Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TAC) are another group of pollutants of concern. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different TACs. The most important, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death. Toxic air contaminants are less pervasive in the urban atmosphere than the criteria air pollutants but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects.

2.3. SENSITIVE RECEPTORS

Some members of the population are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality impacts from projects. These people include children, the elderly, and persons with preexisting respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather are defined as sensitive receptors by Imperial County Air Quality Control District (ICAPCD).

Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods, resulting in sustained exposure to any pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as most of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

The Project is in a remote location with the a few farm residences and one school within two miles. The Magnolia Union Elementary School (4502 Casey Road, Brawley) is approximately 1.6 miles south southwest.

2.4. GLOBAL CLIMATE CHANGE

Constituent gases that trap heat in the Earth's atmosphere are called greenhouse gases (GHGs), analogous to the way a greenhouse retains heat. GHGs play a critical role in the Earth's radiation budget by trapping infrared radiation emitted from the Earth's surface, which would otherwise have escaped into space. Prominent GHGs contributing to this process include CO_2, methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons. Without the natural heat-trapping effect of GHG, the earth's surface would be about 34 °F cooler[9]. This is a natural phenomenon, known as the "Greenhouse Effect," is responsible for maintaining a habitable climate. However, anthropogenic emissions of these GHGs more than natural ambient concentrations are responsible for the enhancement of the greenhouse effect and have led to a trend of unnatural warming of the Earth's natural climate known as global warming or climate change, or more accurately Global Climate Disruption.

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9 *Climate Action Team Report to Governor Schwarzenegger and the California Legislature*. California Environmental Protection Agency, Climate Action Team. March 2006.

Emissions of these gases that induce global climate disruption are attributable to human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors.

The GHGs most responsible for the climate disruption are CO_2, CH_4, N_2O, and several others. They are briefly discussed below:

- **Carbon dioxide (CO_2)** is a colorless, odorless gas consisting of molecules made up of two oxygen atoms and one carbon atom. CO_2 is produced when an organic carbon compound (such as wood) or fossilized organic matter, (such as coal, oil, or natural gas) is burned in the presence of oxygen. CO_2 is naturally removed from the atmosphere by CO_2 "sinks", such as absorption by seawater and photosynthesis by ocean-dwelling plankton and land plants, such as forests and grasslands. However, oceans are also a source of CO_2 to the atmosphere, along with land plants, animals, and soils, when CO_2 is released during respiration. Whereas the natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, each of these activities has increased in scale and distribution. Prior to the industrial revolution, concentrations CO_2 were stable at a range of 275 to 285 ppm[10]. The National Oceanic and Atmospheric Administration (NOAA's) Earth System Research Laboratory (ESRL)[11] indicates that global concentration of CO_2 was 408.16 ppm in November 2018. These concentrations of CO_2 exceed by far the natural range over the last 650,000 years (180 to 300 ppm) as determined from ice cores.
- **Methane (CH_4)** is a colorless, odorless non-toxic gas consisting of molecules made up of four hydrogen atoms and one carbon atom. Methane is combustible, and it is the main constituent of natural gas—a fossil fuel. Methane is released when organic matter decomposes in low oxygen environments. Natural sources include wetlands, swamps and marshes, termites, and oceans. Human sources include the mining of fossil fuels and transportation of natural gas, digestive processes in ruminant animals such as cattle, rice paddies, and the buried waste in landfills. Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropogenic sources include fossil-fuel combustion and biomass burning is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide (N_2O)** is a colorless, non-flammable gas with a sweetish odor, commonly known as "laughing gas", and sometimes used as an anesthetic. Nitrous oxide is naturally produced in the oceans and in rainforests. Man-made sources of N_2O include the use of fertilizers in agriculture, nylon, and nitric acid production, cars with catalytic converters, and the burning of organic matter. Concentrations of N_2O also began to rise at the beginning of the industrial revolution.
- **Fluorinated gases**, including hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, are synthetic, powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases

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10 *Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007*. Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

11 *Recent Global Monthly Mean CO_2. Trends in Atmospheric Carbon Dioxide.* Earth System Research Laboratory. National Oceanic and Atmospheric Administration. https://www.esrl.noaa.gov/gmd/ccgg/trends/global.html. Accessed March 2019.

are sometimes used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential (GWP) gases.

The GWP is the potential of a gas or aerosol to trap heat in the atmosphere. Individual GHG compounds have varying GWP and atmospheric lifetimes. The reference gas for the GWP is CO_2; CO_2 has a GWP of one. The calculation of the CO_2 equivalent (CO_2e) is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent metric. CH_4's warming potential of 25 indicates that CH_4 has a 25 times greater warming affect than CO_2 on a molecular basis and the GWP for sulfur hexafluoride is 22,800. The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs for the three primary GHGs produced by the project are presented in **Table 3.** A CO_2e is the mass emissions of an individual GHG multiplied by its GWP. GHGs are often presented in units called tonnes (t) (i.e. metric tons) of CO_2e (tCO_2e).

Table 3 – Global Warming Potentials[12]

Pollutant	GWP for 100-year time horizon	
	Second assessment report[13]	4th assessment report (AR4)[14]
Carbon dioxide (CO_2)	1	1
Methane (CH_4)	21	25
Nitrous oxide (N_2O)	310	298

Note: Current protocol is to use the 4th assessment values, however, the second assessment report values are also provided since they are the values used by many inventories and public documents.

2.4.1 GHG Emission Levels

Per the World Resources Institute[15] (WRI) in 2014, total worldwide GHG emissions were estimated to be 45,740.7 million (M) t of CO_2e ($MtCO_2e$) and GHG emissions per capita worldwide was 6.29 tCO_2e. These emissions exclude GHG emissions associated with the land use, land-use change, and forestry sector, and bunker fuels. The WRI reports that in 2014, total GHG emissions in the U.S. were 6,371 $MtCO_2e$, with average GHG emissions per capita of 20.00 tCO_2e and total GHG emissions in California[16] were 454.52 $MtCO_2e$ in 2015, with average GHG emissions per capita of 11.75 tCO_2e.

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12 *Global Warming Potentials. Greenhouse Gas Protocol.* World Resources Institute and World Business Council on Sustainable Development. http://www.ghgprotocol.org/files/ghgp/tools/Global-Warming-Potential-Values.pdf. Accessed May 2015.

13 *Second Assessment Report. Climate Change 1995: WG I - The Science of Climate Change.* Intergovernmental Panel on Climate Change. 1996

14 *Climate Change 2007: The Physical Science Basis.* Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. 2007

15 *Climate Analysis Indicators Tool.* International Dataset. World Resources Institute. http://cait.wri.org/. Accessed December 2017.

16 *California Greenhouse Gas Emission Inventory - 2017 Edition.* California Air Resources Board. https://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed December 2017.

California has a larger percentage of its total GHG emissions coming from the transportation sector (39%) than the U.S. emissions (27%) and a smaller percentage of its total GHG emissions from the electricity generation sector, i.e. California has 11 percent, but the U.S. has 37 percent.

2.4.2 Potential Environmental Effects

Worldwide, average temperatures are likely to increase by 3 °F to 7 °F by the end of the 21st century[17]. However, a global temperature increase does not directly translate to a uniform increase in temperature in all locations on the earth. Regional climate changes are dependent on multiple variables, such as topography. One region of the Earth may experience increased temperature, increased incidents of drought, and similar warming effects, whereas another region may experience a relative cooling. According to the International Panel on Climate Change's (IPCC) Working Group II Report[18], climate change impacts to North America may include diminishing snowpack, increasing evaporation, exacerbated shoreline erosion, exacerbated inundation from sea level rising, increased risk and frequency of wildfire, increased risk of insect outbreaks, increased experiences of heat waves, and rearrangement of ecosystems, as species and ecosystem zones shift northward and to higher elevations[19].

2.4.3 California Implications

Even though climate change is a global problem and GHGs are global pollutants, the specific potential effects of climate change on California have been studied. The third assessment produced by the California Natural Resources Agency (CNRA)[20] explores local and statewide vulnerabilities to climate change, highlighting opportunities for taking concrete actions to reduce climate-change impacts. Projected changes for the remainder of this century in California include:

- **Temperatures** – By 2050, California is projected to warm by approximately 2.7 °F above 2000 averages, a threefold increase in the rate of warming over the last century and springtime warming — a critical influence on snowmelt — will be particularly pronounced.
- **Rainfall** – Even though model projections continue to show the Mediterranean pattern of wet winters and dry summers with seasonal, year-to-year, and decade-to-decade variability, improved climate models shift towards drier conditions by the mid-to-late 21st century in Central, and most notably, Southern California.
- **Wildfire** - Earlier snowmelt, higher temperatures, and longer dry periods over a longer fire season will directly increase wildfire risk. Indirectly, wildfire risk will also be influenced by potential climate-related changes in vegetation and ignition potential from lightning, with human activities continuing to be the biggest factor in ignition risk. Models are showing that estimated that property damage from wildfire risk could be as much as 35 percent lower if smart growth policies were adopted and followed than if there is no change in growth policies and patterns.

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17 *Climate Change 2007: Impacts, Adaptation, and Vulnerability.* Intergovernmental Panel on Climate Change. Website http://www.ipcc.ch/ipccreports/ar4-wg2.htm

18 *ibid*

19 *ibid*

20 *Our Changing Climate 2012: Vulnerability & Adaptation to the Increasing Risks from Climate Change in California.* California Natural Resources Agency. July 2012 / CEC-500-2012-007

The third assessment by CNRA not only defines projected vulnerabilities to climatic changes but analyzes potential impacts from adaptation measures used to minimize harm and take advantage of beneficial opportunities that may arise from climate change.

The report highlights important new insights and data, using probabilistic and detailed climate projections and refined topographic, demographic, and land use information. The findings include:

- The state's electricity system is more vulnerable than was previously understood.
- The Sacramento-San Joaquin Delta is sinking, putting levees at growing risk.
- Wind and waves, in addition to faster rising seas, will worsen coastal flooding.
- Animals and plants need connected "migration corridors" to allow them to move to habitats that are more suitable to avoid serious impacts.
- Native freshwater fish are particularly threatened by climate change.
- Minority and low-income communities face the greatest risks from climate change.

The Fourth Assessment[21] by the CNRA goes further by including a set of State-funded research reports that examine how climate change will affect specific sectors, potential responses to climate change, and other policy-driven questions, including reports for nine regions of the state. The Inland Deserts Region Report[22] finds that the climate risks facing California's Inland Deserts Region include:

- Extremely high maximum temperatures are expected.
- The fate of the Salton Sea is a critical determinant of future environmental quality.
- Renewable energy development will have big impacts on the economy and infrastructure.
- Continuing current land use/development patterns (i.e., housing development in the region to compensate for lack of development on the coast) will require increased energy for cooling to compensate for a rise in extremely high temperatures.
- Higher temperatures will exacerbate water stress in an already very water-limited region.
- Changing water availability is a key determinant of the future for ecological and agricultural systems.
- Population in the Inland Deserts is highly vulnerable to the effects of climate change.
- Tourism is a major economic driver that is likely to be threatened by a changing climate.

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21 *California's Fourth Climate Assessment.* Governor's Office of Planning and Research, California Natural Resources Agency, California Energy Commission. http://www.climateassessment.ca.gov/. Accessed February 27, 2019.

22 *Inland Deserts Summary Report*, California's Fourth Climate Change Assessment. Hopkins, Francesca. (University of California, Riverside). Publication number #: SUMM-CCCA4-2018-008. August 27, 2018.

SECTION 3.0 – REGULATORY CONTEXT

Air pollutants are regulated at the national, State, and air basin level; each agency has a different degree of control. EPA regulates at the national level; the CARB regulates at the State level; and the ICAPCD regulates at the air basin level in the project area.

3.1. REGULATORY AGENCIES

EPA is the federal agency responsible for overseeing state air programs as they relate to the FCAA, approving State Implementation Plans (SIPs), establishing NAAQS and setting emission standards for mobile sources under federal jurisdiction. EPA has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented.

CARB is the state agency responsible for establishing CAAQS, adopting and enforcing emission standards for various sources including mobile sources (except where federal law preempts their authority), fuels, consumer products, and toxic air contaminants. CARB is also responsible for providing technical support to California's 35 local air districts, which are organized at the county or regional level, overseeing local air district compliance with State and federal law, approving local air plans and submitting the SIP to the EPA. CARB also regulates mobile emission sources in California, such as construction equipment, trucks, and automobiles.

The ICAPCD shares responsibility with CARB for ensuring that all State and federal ambient air quality standards are achieved and maintained within the County. State law assigns to local Air Pollution Control Districts the primary responsibility for control of air pollution from stationary sources, while reserving an oversight role for CARB. Generally, the Air Pollution Control Districts must meet minimum state and EPA program requirements. The Air Pollution Control District is also responsible for the inspection of stationary sources, monitoring of ambient air quality, and planning activities such as modeling and maintenance of the emission inventory. Air Pollution Control Districts in state non-attainment areas are also responsible for developing and implementing transportation control measures necessary to achieve the state ambient air quality.

3.2. ATTAINMENT STATUS

3.2.1 Designations/Classifications

EPA has identified nonattainment and attainment areas for each NAAQS. Under amendments to the FCAA, EPA has designated air basins, or portions thereof, as attainment, nonattainment, or unclassifiable, based on whether the national standards have been achieved. The State designates air basins, or portions thereof, for all CAAQS. The State designation criteria specify four categories: nonattainment, nonattainment-transitional, attainment, and unclassified. **Table 4** shows the designations and classifications for the County.

Table 4 – Designations/Classifications for the County[23]

Pollutant	State Designation	Federal Designation (Classification)
Ozone	Nonattainment	Nonattainment (Marginal)
Respirable PM (PM_{10})	Nonattainment	Nonattainment (Serious) [2]
Fine PM ($PM_{2.5}$)	Attainment [1]	Nonattainment [3]
Carbon Monoxide (CO)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassifiable/Attainment
Sulfur Dioxide	Attainment	Attainment
Sulfates	Attainment	**No Federal Standard**
Lead	Attainment	
Hydrogen Sulfide	Unclassified	
Visibility reducing Particles	Unclassified	

[1] With the exception of a nonattainment designation for the City of Calexico
[2] Designation for Imperial Valley Planning Area only, which is most of Imperial County save for a small stretch of land on the County's eastern end.
[3] Designation is only for the urban areas within Imperial County

3.3. AIR QUALITY PLANS

3.3.1 Ozone Plan

On December 3, 2009, the EPA issued a final ruling determining that the Imperial County "moderate" 8-hour ozone non-attainment area attained the 1997 8-hour NAAQS for ozone. The determination by the EPA was based upon complete, quality-assured, and certified ambient air monitoring data for 2006 through 2008. This determination effectively suspended the requirement for the State to submit an attainment demonstration, a reasonable further progress plan, contingency measures, and other planning requirements for so long as Imperial County continues to attain the 1997 8-hour ozone NAAQS. However, this determination did not constitute a re-designation to attainment; therefore, the classification and designation status for Imperial County remain as a "moderate" non-attainment area of the 1997 8-hour ozone NAAQS. Imperial County was required to submit for EPA approval a 2009 8-Hour Ozone "Modified" Air Quality Management Plan (Modified AQMP), which was approved July 13, 2010.

The Modified AQMP served as a comprehensive planning document intended to provide guidance to the ICAPCD, the County, and other local agencies on how to continue maintaining the 1997 8-hour ozone NAAQS. The Modified AQMP includes control measures consisting of three components: 1) the ICAPCD's Stationary Source Control Measures; 2) Regional Transportation Control Measures; and 3) the State Strategy. These measures primarily rely on the traditional command and control approach and provide the framework for ICAPCD rules that reduce ROG and NO_X emissions.

[23] *Proposed 2017 Amendments to the Area Designations for State Ambient Air Quality Standards: Appendix C – Maps and Tables for State and National Ambient Air Quality Standards.* California Air Resources Board. December 19, 2017.

The current designation for the PM_{10} standard remains nonattainment as of February 28, 2019.[24] The ICAPCD is in the process of requesting an attainment redesignation and maintenance plan.[25] However, Imperial County's 2017 Ozone SIP[26], demonstrates that Imperial County is in attainment of the 2008 8-hour ozone standard but for emissions emanating across the international border. In addition, a weight-of-evidence analysis has been included to show that Imperial County will maintain this status of attainment through the July 2018 attainment date.

As of November 2017, after consideration of CARB's recommendations, the EPA "is designating Imperial County, CA as nonattainment for the 2015 ozone NAAQS".[27]

3.3.2 PM_{10} Plan

The ICAPCD District Board of Directors adopted the PM_{10} SIP for Imperial County on August 11, 2009.[28] The PM_{10} SIP meets EPA requirements to demonstrate that the County will attain the PM_{10} standard as expeditiously as practicable. The PM_{10} SIP was required to address and meet the following elements, required under the FCAA of areas classified to be in serious nonattainment of the NAAQS:

- Best available emission inventories.
- A plan that enables attainment of the PM_{10} federal air quality standards.
- Annual reductions in PM_{10} or PM_{10} precursor emissions that are of not less than 5% from the date of SIP submission until attainment.
- Best available control measures and best available control technologies for significant sources and major stationary sources of PM_{10}, to be implemented no later than four years after reclassification of the area as serious.
- Transportation conformity and motor vehicle emission budgets in accord with the attainment plan.
- Reasonable further progress and quantitative milestones.
- Contingency measures to be implemented (without the need for additional rulemaking actions) if the control measure regulations incorporated in the plan cannot be successfully implemented or fail to give the expected emission reductions.

The PM_{10} SIP updated the emission inventory to incorporate revised cattle emissions, revised windblown dust model results, revised Southern California Association of Governments activity data, and updated entrained and windblown unpaved road dust estimates. The adjustments made to the emission inventory fell in two categories: (i) adjustments to incorporate new methodology and updated information (e.g., throughputs, activity data, etc.),

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24 *Green Book PM-10 (1987) Area Information.* United States Environmental Protection Agency. https://www.epa.gov/green-book/green-book-pm-10-1987-area-information. Accessed March 2019.

25 *Draft Imperial County 2018 Redesignation Request and Maintenance Plan for Particulate Matter less than 10 Microns in Diameter.* Imperial County Air Pollution Control District. September 2018.

26 *2017 Imperial County State Implementation Plan for the 2008 8-Hour Ozone Standard.* Imperial County Air Pollution Control District, September 12, 2017.

27 *California - Final Area Designations for the 2015 Ozone National Ambient Air Quality Standards, Technical Support Document.* United States Environmental Protection Agency. November 16, 2017.

28 *2009 Imperial County State Implementation Plan for Particulate Matter Less Than 10 Microns in Aerodynamic Diameter.* Imperial County Air Pollution Control District. July 10, 2009.

and (ii) adjustments to incorporate emission reductions arising from the implementation of new control measures.

Additionally, the PM_{10} SIP demonstrated that Imperial County attained the Federal PM_{10} NAAQS, but for international emissions from Mexico, based on 2006-2008 monitoring data. Attainment was due, in part, to ICAPCD's November 2005 adoption and subsequent implementation of Regulation VIII fugitive dust rules; those rules were based on the related 2005 Best Available Control Measure (BACM) analysis.

Since the reclassification of Imperial County to serious nonattainment for PM_{10} occurred on August 2004, control of fugitive PM_{10} emissions from the significant source categories that meets BACM stringency identified in the PM_{10} SIP began in January 2006.

Major stationary sources are required to implement Best Available Control Technology (BACT) to control PM_{10} emissions (Rule 207) and they are required to comply with the 20% opacity (Rule 403). In addition, stationary sources are required to mitigate fugitive dust emissions from access roads, construction activities, handling and transferring of bulk materials, and track-out/carry-out according to the requirements of Regulation VIII.

Because Imperial County is shown in the PM_{10} SIP to have attained the 24-hour PM_{10} NAAQS but for international transport of Mexicali emissions in 2006-2008, reasonable further progress and milestone requirements are unnecessary, and specifically the 5% yearly emission reductions requirement does not apply to future years. As documented in the PM_{10} SIP, all remaining SIP requirements applicable to the 2009 Imperial County PM_{10} Plan have been successfully addressed.

3.3.3 $PM_{2.5}$ Plan

The ICAPCD District Board of Directors adopted[29] the $PM_{2.5}$ SIP for Imperial County on December 2, 2014. The $PM_{2.5}$ SIP fulfills the requirements of the CAA for those areas classified as "moderate" nonattainment for $PM_{2.5}$. It incorporates updated emission inventories, and analysis of Reasonable Available Control Measures (RACM), an assessment of Reasonable Further Progress (RFP), and a discussion of contingency measures. Analyses in the $PM_{2.5}$ SIP included assessing emission inventories from Imperial County and Mexicali; evaluating the composition and elemental makeup of samples collected on Calexico violation days; reviewing the meteorology associated with high concentration measurements; and performing directional analysis of the sources potentially impacting the Calexico $PM_{2.5}$ monitor. As is demonstrated in the $PM_{2.5}$ SIP, the primary reason for elevated $PM_{2.5}$ levels in Imperial County is transport from Mexico. Essentially, the $PM_{2.5}$ SIP demonstrated attainment of the 2006 $PM_{2.5}$ NAAQS "but for" transport of international emissions from Mexicali, Mexico.

[29] *Imperial County 2013 SIP for the 2006 24-hr PM2.5 Moderate Nonattainment Area.* Imperial County Air Pollution Control District. December 2, 2014.

3.4. REGULATORY FRAMEWORK

This section contains a discussion of the federal, State, and local air quality regulations, plans, and policies applicable to the proposed compose facility. Federal, state, and local authorities have adopted rules and regulations that govern the emissions of air pollutants from many stationary facilities. This section focuses on current air quality regulations and their impact on the proposed project

3.4.1 Background – SB 700

Historically in California, air pollution control laws have exempted agricultural operations from requiring air permits. On September 22, 2003, Governor Davis signed into law Senate Bill 700, authored by Senator Florez. The bill amended air pollution control requirements in the California Health and Safety Code to include requirements for agricultural sources of air pollution. SB 700 accomplished six main things:

1. Defined "agricultural source" in state law;
2. Removed restrictions that prevented air districts from requiring permits from agricultural sources;
3. Established specific permitting and exemption requirements for agricultural sources;
4. Required emission control regulations in areas that are federal nonattainment for PM_{10};
5. Required permits and emissions mitigation for Confined Animal Facilities; and
6. Required compilation of a clearinghouse of information about available emissions control and mitigation for agricultural activities.

3.4.2 Local Implications

In Imperial County, the ICAPCD amended and adopted several rules to comply with the requirements of SB 700, including revisions to Rules 201 and 202. Rule 201 added "feedlot certificates" to the list of permits required. In addition, on November 10, 2006, the ICAPCD adopted Rule 217 - Large Confined Animal Facilities (LCAF) Permits Required. Rule 217 requires that all LCAFs, including beef feedlots and dairies, apply for and obtain an Authority to Construct/Permit to Operate which includes a mitigation plan for which the LCAF implements in order to reduce VOC emissions. Rule 217 is currently being implemented and targets reductions of VOC and NH_3 emissions.

As part of the implementation of Rule 217, the ICAPCD issued Policy Number 38, which listed required recommended mitigation measures for LCAFs. Beef Feedlot Measure C-4 and Dairy Measure E-4 established mitigation related to the handling of solid manure or separated solids that require owners/operators "remove manure from pans or corrals and transport to an on-site composting area utilizing approved composting procedures".

3.5. CLIMATE CHANGE/GREENHOUSE GAS

3.5.1 Federal Climate Change Legislation

The federal government is taking several common-sense steps to address the challenge of climate change. EPA collects various types of GHG emissions data. This data helps policy makers, businesses, and EPA track GHG emissions trends and identify opportunities for reducing emissions and increasing efficiency. EPA has been collecting a national inventory of GHG emissions since 1990 and in 2009 established mandatory reporting of GHG emissions from large GHG emissions sources.

EPA is also getting GHG reductions through partnerships and initiatives; evaluating policy options, costs, and benefits; advancing the science; partnering internationally and with states, localities, and tribes; and helping communities adapt.

3.5.2 State Climate Change Legislation

The State of California has been studying the impacts of climate change since 1988, when AB 4420 was approved that directed the California Energy Resources Conservation and Development Commission (CEC), in consultation with CARB and other agencies, to study the implications of global warming on California's environment, economy, and water supply.

Currently, California's major initiatives for reducing climate change or GHG emissions are outlined in Assembly Bill 32 (signed into law 2006), 2005 Executive Order, and a regulation to reduce passenger car GHG emissions. These efforts aim at reducing GHG emissions to 1990 levels by 2020 - a reduction of approximately 30 percent, and then an 80 percent reduction below 1990 levels by 2050. The main strategies for making these reductions are outlined in the Climate Change Scoping Plan[30].

30 *Climate Change Scoping Plan, a Framework for Change.* California Air Resources Board. December 2008.

SECTION 4.0 – BASELINE AIR QUALITY

4.1. LOCAL AMBIENT AIR CONCENTRATIONS

Existing levels of ambient air concentrations and historical trends and projections in the project area are best documented by measurements made by the ICAPCD and CARB. Imperial County began its ambient air monitoring in 1976; however, monitoring of ozone began in 1986 at the El Centro monitoring station. Since that time, monitoring has been performed by the ICAPCD, CARB, and private industry. There are six monitoring sites in Imperial County from Niland to Calexico.

The nearest monitoring station to the Project site is in Brawley, on Main Street, approximately 8 miles from the Project. The Brawley Station only monitors PM_{10} and $PM_{2.5}$. The nearest monitoring site that monitors ozone is in Westmoreland, approximately 12.5 miles from the Project. These were determined to be appropriate since the Project area is only nonattainment for ozone, PM_{10}, and $PM_{2.5}$. **Table 5** summarizes 2012 through 2017 published monitoring data from CARB's Aerometric Data Analysis and Management System for the Brawley and Westmoreland Stations.

Table 5 – Air Quality Monitoring Summary for Project Area[31]

Air Pollutant	Monitoring Year					
Ozone – Westmoreland	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Max 1 Hour (ppm) Days > CAAQS (0.09 ppm)	0.080 0	N/A	N/A	0.077 0	0.076 0	0.078 0
Max 8 Hour (ppm) Days > NAAQS (0.075 ppm) Days > CAAQS (0.070 ppm)	**0.074** 0 3	N/A	N/A	0.061 0 0	0.068 0 0	0.068 0 0
PM_{10} – Brawley	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Max Daily California Measurement Days > NAAQS (150 µg/m³) Days > CAAQS (50 µg/m³)	**127.7** 0 103	**196.3** 3 121	**471.8** 3 178	**304.9** 2 10	**275.3** 3 18	**449.8** 8 N/A
$PM_{2.5}$ – Brawley	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Max Daily National Measurement Days > NAAQS (35 µg/m³)	25.9 0	23.1 0	24.3 0	29.5 0	**57.9** 2	**46.1** 1

Abbreviations:

> = exceed ***Bold** = exceedance* *N/A = not available*
ppm = parts per million *ppb = parts per billion* *µg/m³ = micrograms per cubic meter*
CAAQS = California Ambient Air Quality Standard *NAAQS = National Ambient Air Quality Standard*

The monitoring data shows the Westmoreland Station exceeded the State 8-hour ozone standards in 2012, was down in 2013 and 2014, and didn't exceed in 2015 through 2017. Westmoreland did not exceed the State 1-hour standard in any year. The Brawley station exceeded the State PM_{10} standard in each of the years and in 2013 through 2017 exceeded the federal PM_{10} standard. The Brawley station also exceeded the federal $PM_{2.5}$ standard in 2016 and 2017.

31 *iADAM Air Quality Data Statistics.* California Air Resources Board. http://www.arb.ca.gov/adam/welcome.html. Accessed July 2016.

4.2. LOCAL EMISSIONS INVENTORY

An emissions inventory is an account of the amount of air pollution generated by various emissions sources in a specified area. To estimate the sources and quantities of pollution, CARB, in cooperation with local air districts, other government agencies, and industry, maintains an inventory of California emission sources. Sources are subdivided into three major emission categories: mobile, stationary, and area-wide sources.

Mobile sources include on-road sources and off-road mobile sources. The on-road emissions inventory, which includes automobiles, motorcycles, and trucks, is based on an estimation of population, activity, and emissions of the on-road motor vehicles used in California. The off-road emissions inventory is based on an estimate of the population, activity, and emissions of various off-road equipment, including recreational vehicles, farm and construction equipment, lawn and garden equipment, forklifts, locomotives, commercial marine ships, and marine pleasure craft.

Stationary sources are large, fixed sources of air pollution, such as power plants, refineries, and manufacturing facilities. Stationary sources also include aggregated point sources. These include many small point sources, or facilities, that are not inventoried individually but are estimated as a group and reported as a single-source category. Examples include gas stations and dry cleaners. Each of the local air districts estimates the emissions for most stationary sources within its jurisdiction.

Areawide sources include source categories associated with human activity that take place over a wide geographic area. Emissions from area-wide sources may be either from small, individual sources, such as residential fireplaces, or from widely distributed sources that cannot be tied to a single location, such as consumer products, and dust from unpaved roads or farming operations (such as tilling).

4.2.1 Imperial County Emissions Inventory

Table 6 summarizes Imperial County's estimated 2020 emissions inventory (EI) for major categories of air pollutants presented in tons per day. Detailed breakdowns of the emissions sources and categories are available at CARB's website[32].

4.2.1.1 2020 Imperial County Emission Inventory Summary

Reactive organic gases (ROG)

ROG emissions result primarily from incomplete fuel combustion and the evaporation of chemical solvents and fuels. In 2020, Imperial County should have approximately 29.4 percent of the ROG emissions contributed by miscellaneous processes, primarily farming operations; approximately 23.9 percent will be contributed by solvent evaporation, such as pesticides and fertilizers and asphalt paving and roofing; 16.3 percent will come from other mobile sources, and primarily off-road recreational vehicles and aircraft.

Carbon monoxide (CO)

The primary source of CO in Imperial County in 2020 should be from on-road motor vehicles, which will contribute approximately 42.7 percent of the total CO. Other off-road engines and vehicles (such as off-road recreational vehicles and recreational boats, construction equipment, and aircraft) will contribute another 30.6

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32 *Almanac Emissions Projection Data.* California Air Resources Board. http://www.arb.ca.gov/app/emsinv/. Accessed February 2019.

percent and another 25.3 percent come from miscellaneous sources, primarily managed burning and disposal. Higher levels of CO generally occur in areas with heavy traffic congestion.

Table 6 – Imperial County 2020 Estimated Annual Emissions[33]

Emission Category	2020 Emissions in tons per day					
Stationary Sources	**ROG**	**CO**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**	**NH_3**
Fuel combustion	0.11	0.49	1.72	0.20	0.18	0
Waste disposal	0	0	0	0	0	1.5
Cleaning and surface coatings	0.62	0	0	0	0	0
Petroleum production and marketing	0.63	0	0	0	0	0
Industrial processes	0	0.09	0.08	4.55	0.84	0
Areawide Sources	**ROG**	**CO**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**	**NH_3**
Solvent evaporation	3.67	0	0	0	0	14.74
Miscellaneous processes	3.54	11.76	0.51	278.76	36.79	15.40
Mobile Sources	**ROG**	**CO**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**	**NH_3**
On-road motor vehicles	2.26	17.60	5.67	0.40	0.18	0.19
Other mobile sources	3.91	20.37	6.39	1.04	0.98	0
GRAND TOTAL	***14.65***	***50.31***	***14.37***	***284.95***	***38.97***	***31.83***

Notes:
All values in tons per day. Forecasted 2020 emissions are estimated from a base year inventory for 2012 and based on growth and control factors available from CARB. Control reflects only those rules already adopted. The sum of values may not equal total shown, due to rounding.

Nitrogen Oxides (NO_X)

A review of the 2020 EI shows that over 71 percent of the total NO_X emissions in Imperial County should come from on- and off-road vehicles (40.9% from on-road and 30.5% from off-road). The largest portion of on-road NO_X emissions will come from heavy-duty diesel trucks (48.3% of the total for on-road). The largest contributors from off-road sources will be trains (55.1% of total off-road NO_X).

Inhalable Particulate Matter (PM_{10})

Almost 98 percent of the total PM_{10} emissions in Imperial County should come from the category labeled Miscellaneous Processes in 2015. The largest portion of the PM_{10} emissions from miscellaneous processes will

33 *ibid*

come from fugitive windblown dust (74.0% of the total for miscellaneous processes) and unpaved road dust (21.0%).

However, as part of ICAPCD's PM_{10} SIP[34], analysis of the potential sources of fugitive windblown shows that during high winds, Imperial County's desert areas can produce PM emissions over 50 times greater than the emissions from any anthropogenic source, including agricultural cropland. In addition, Imperial County is bordered to the south by the densely populated city of Mexicali, Mexico. Mexicali comprises approximately 760,000 people within approximately 200 square miles and has PM emissions estimated at 257 tons/day, compared with emissions of approximately 13 tons/day for the considerably smaller US town of Calexico situated just across the Mexican border from Mexicali. Under stagnant and light wind conditions, elevated dust concentrations in Mexicali can cause PM from Mexico to drift across the border into Calexico. As a result of Imperial County's desert climate and of its shared border with the densely populated city of Mexicali, the primary reasons for elevated PM levels in Imperial County are thus (i) disturbance of soils by wind and human activity, (ii) transport of PM_{10} from Mexico, and occasionally, (iii) wildfires.

Fine Particulate Matter ($PM_{2.5}$)

Whereas a significant portion of PM_{10} emissions come from soil dislocation processes, $PM_{2.5}$ is smaller and is more often a result of particulates coming from combustion sources. However, in Imperial County Miscellaneous Processes will still represent 93.4 percent of the total $PM_{2.5}$, with fugitive windblown dust contributing 75 percent of the miscellaneous processes total.

Ammonia (NH_3)

The 2020 EI shows that about 48% of the NH_3 will be generated from farming operations (primarily feedlots) and another 46% will be from the use of pesticides and fertilizers.

34 *2009 Imperial County State Implementation Plan for Particulate Matter Less Than 10 Microns in Aerodynamic Diameter - Draft Final.* Imperial County Air Pollution Control District. July 10, 2009.

SECTION 5.0 – THRESHOLDS OF SIGNIFICANCE

The ICAPCD CEQA Air Quality Handbook[35] outlines significance determination thresholds. The significance criteria described in this section have been derived from this guidance document. In addition, significance criteria for stationary sources, which are permitted by the ICAPCD, are also cited in this section of the document.

5.1. CEQA SIGNIFICANCE THRESHOLDS

In accordance with State 2019 CEQA Guidelines Appendix G, implementation of the project would result in a potentially significant impact if it were to:

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

b) Result in cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.

c) Expose sensitive receptors to substantial pollutant concentrations;

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Each of these threshold criteria is discussed in this section.

5.2. IMPERIAL COUNTY APCD THRESHOLDS OF SIGNIFICANCE

Under the ICAPCD guidelines, an air quality evaluation must address the following:

- Comparison of calculated project emissions with ICAPCD emission thresholds.
- Consistency with the most recent Clean Air Plan for Imperial County.
- Comparison of predicted ambient pollutant concentrations resulting from the project to state and federal health standards, when applicable.
- The evaluation of special conditions that apply to certain projects.

5.2.1 CEQA Thresholds of Significance for Project Operations

The ICAPCD has determined in their Guidelines that, because the operational phase of a proposed project has the potential of creating lasting or long-term impacts on air quality, it is important that a proposed development evaluate the potential impacts carefully. Therefore, air quality analyses should compare all operational emissions of a project, including motor vehicle, area source, and stationary or point sources to the thresholds in **Table 7** below. **Table 7** provides general guidelines for determining the significance of impacts and the recommended type of environmental analysis required based on the total emissions that are expected from the operational phase of a project.

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35 *CEQA Air Quality Handbook: Guidelines for the Implementation of the California Air Quality Act of 1970, as amended.* Imperial County Air Pollution Control District, December 12, 2017.

Table 7 – Thresholds of Significance for Project Operations[36]

Pollutant	Emissions (lbs/day)	
	Tier I	Tier II
NO_X and ROG	Less than 137 lbs/day	137 lbs/day and greater
PM_{10} and SO_X	Less than 150 lbs/day	150 lbs/day and greater
CO and $PM_{2.5}$	Less than 550 lbs/day	550 lbs/day and greater
Level of Significance	Less Than Significant	Significant Impact

From the ICAPCD's perspective residential, commercial and industrial developments with a potential to emit below Tier I level will not be required to develop a Comprehensive Air Quality Analysis Report or an Environmental impact report (EIR). However, an Initial Study would be required to help the Lead Agency determine whether the project would have a less than significant impact. The Lead Agency is required by CEQA to disclose the identified environmental effects and the ways in which the environmental effects will be mitigated to achieve a level of less than significant. To achieve a level of insignificance the Lead Agency should require the implementation of all feasible standard mitigation measures listed in Section 7.2 of the ICAPCD Guidelines.

5.2.2 Construction Emissions for Tier I Projects

Even though construction emissions are generally temporary in nature, they can have a temporary adverse impact on air quality. Construction, by its very nature may produce a variety of emissions however PM_{10} is the pollutant of greatest concern. While construction PM_{10} emissions can vary greatly depending on the phase of the construction, level of activity, and other factors, ICPACD states there are feasible mitigation or control measures which can be reasonably implemented to reduce PM_{10} emissions significantly. Because particulate emissions from construction activities have the potential of leading to adverse health effects as well as nuisance concerns, such as reduced visibility, all projects are required to mitigate construction impacts by regulation, i.e. ICAPCD Regulation VIII. Another source of construction related emissions comes from the use of diesel-powered construction equipment which has been known to produce ozone precursor emissions and combustion related particulate emissions. To help projects address these emissions The ICAPCD has also listed standard mitigation measures for construction equipment.

As a determination of significance for Tier II projects, the ICAPCD Guidelines presents threshold for construction activities. The thresholds presented in **Table 8** is intended to serve as a guide for project developers and interested parties in determining the recommended type of mitigation measures.

36 *ibid*

Table 8 – Thresholds of Significance for Construction Activities[37]

Pollutant	Threshold in lbs/day
PM_{10}	150
ROG	75
NOx	100
CO	550

5.2.3 Toxic Air Contaminants

Development projects which locate near already existing industrial type operations which have the potential to emit toxic or hazardous air pollutants, even at a very low level of emissions, may be considered significant because of the increased cancer risk to the incoming population. Additionally, development projects which have the potential to emit toxic or hazardous air pollutants and are near sensitive receptors.

5.2.4 Odors

While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the District. Any project with the potential to expose members of the public to objectionable odors frequently would be deemed to have a significant impact.

If a project is proposed within the screening level distance in **Table 9,** the ICAPCD should be contacted for information regarding potential odor problems. For projects that involve new receptors located near an existing odor source(s), a public information reviewing request should be submitted to the ICAPCD for a review of any existing odor complaints and for the nearest odor emitting facility(ies).

Table 9 – Project Screening Distances for Potential Odor Sources[38]

Type of Operation	Project Screening Distance
Wastewater Treatment Plant	1 mile
Sanitary Landfill	1 mile
Composting Station	1 mile
Feedlot	1 mile
Asphalt Plant	1 mile
Painting/Coating Operations (auto body shops)	1 mile
Rendering Plant	1 mile

37 *ibid*

38 *ibid*

5.3. GREENHOUSE GAS EMISSIONS THRESHOLDS

This analysis proposes the use of the "Tier 3" quantitative thresholds for residential and commercial projects as recommended by the South Coast Air Quality Management District (SCAQMD)[39]. The SCAQMD proposes that if a project generates GHG emissions below 3,000 tCO_2e, it could be concluded that the Project's GHG contribution is not "cumulatively considerable" and is therefore less than significant under CEQA. If the project generates GHG emissions above the threshold, the analysis must identify mitigation measures to reduce GHG emissions.

In addition, 2019 CEQA Appendix G states that a project would have potentially significant GHG emission impacts if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

39 *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold.* South Coast Air Quality Management District. October 2008.

SECTION 6.0 – ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

6.1. ANALYSIS METHODOLOGY

Whereas the Project is the expansion of existing operations and thusly the CEQA analysis is only required to include the effects of the expansion only. From the air permitting perspective an analysis of the total Facility after expansion is necessary to assure the Facility meets permitted limits. This AQS will evaluate the Total Project emissions and compare the results to regional thresholds presented in **Table 7**. If these emissions are less than significant, the emissions from the increase only will also be less than significant.

Operation of the Project would result in emissions of ROG, CO, NO_X, SO_X, PM_{10}, and $PM_{2.5}$. Because SO_X emissions are minimal and the County is in attainment for sulfur dioxide (SO_2), these emissions will not be presented. Emissions would be generated from the vehicular travel of the hauling trucks and employee vehicles; on-site fugitive dust; off-site fugitive dust from roads; landscaping; and emissions from composting as discussed below.

Other air quality impacts (i.e., local emissions of CO, odors, and construction- and operation-related TACs) were assessed in accordance with methodologies recommended by CARB and ICAPCD.

6.2. ANALYSIS OF ENVIRONMENTAL IMPACTS

IMPACT AQ-1 – Would the Project conflict with or obstruct implementation of the applicable air quality plan?

CEQA requires that projects be consistent with the applicable AQMP. A consistency determination plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision-makers of the environmental efforts of the project under consideration at a stage early enough to ensure that air quality concerns are fully addressed.

Ozone Air Quality Management Plan (AQMP)

The Project does not produce new residential activity, produces only minimal additional traffic activity during project operations; and does not fall outside of the modeling forecast estimations used in determining continued maintenance.

PM_{10} State Implementation Plan (PM_{10} SIP)

Operational activities related to the Project would not generate enough traffic to significantly impact regional transportation emissions budgets; will comply with all applicable ICAPCD Rules and Regulations; and will comply with all applicable State and federal requirements for attainment of air quality objectives.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are necessary.

Level of Significance After Mitigation: No significant adverse impacts were identified, and no mitigation measures are necessary.

IMPACT AQ-2 – Would the Project result in cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

Project Emissions

Composting Emissions

Composting is the aerobic, or oxygen-requiring, decomposition of organic materials by microorganisms under controlled conditions. During composting, microorganisms consume oxygen while feeding on organic matter. Active composting generates considerable heat and large quantities of CO_2 and water vapor are released into the air. CO_2 and water losses can amount to half the weight of the initial materials. Composting reduces both the volume and mass of the raw materials while transforming them into a valuable soil conditioner.

EPA's *Non-Water Quality Impact Estimates for Animal Feeding Operations*[40], includes air emissions from the animal production area, including animal housing and manure storage and treatment areas. Composting is included in the manure and storage areas. Pollutants discussed related to composing were:

- **Ammonia (NH_3)** - Ammonia is a by-product of the microbial decomposition of the organic nitrogen compounds in manure. Ammonia will continue to form during with the microbial breakdown of manure during composting operations. Ammonia will volatilize rapidly with drying from manure handled as solids.
- **Methane (CH_4)** - Methane is produced during the decomposition of animal manure. Since Methane is a byproduct of the microbial degradation of organic matter under anaerobic conditions, when manure is handled as a solid (e.g., composting), it tends to decompose aerobically, and little or no methane is produced.
- **Hydrogen Sulfide** - Hydrogen sulfide and other reduced sulfur compounds are produced as manure decomposes anaerobically. Under aerobic conditions, any reduced sulfur compounds in manure will be oxidized microbially to nonvolatile sulfate, and emissions of hydrogen sulfide will be minimal.
- **Volatile Organic Compounds (VOC)** - Volatile organic compounds are organic compounds that vaporize easily at room temperature. Volatile organic compounds analyzed were total gaseous non-methane organic compounds using a total combustion analysis technique using a flame ionization detector.

Since the ICAPCD have not yet adopted emission factors for manure composting, an analysis of background data used by the SCAQMD in the development of their Rule 1133 (Emission Reductions from Composting and Related Operations). In developing their Rule, SCAQMD used an average of three co-composting sites. Co-composting sites are where the bovine manure is combined with municipally derived green material. Of the three sites used in their averaging, the EKO facility would be most representative of the Proposed Project; therefore, emission factors derived from the source test[41] conducted at that facility were used to estimate emissions from the Project. The EKO facility's compost mixture was 80 percent manure. The EKO source test provided an emission factor for total gaseous non-methane organic compounds (TGNMOC) which are

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40 *Non-Water Quality Impact Estimates for Animal Feeding Operations.* U.S. Environmental Protection Agency. Engineering and Analysis Division. December 2002.

41 Source Test Report (95-0032/96-0003) conducted at EKO Systems, Chino, CA. *Characterization of Ammonia, Total Amine, Organic Sulfur Compound, and Total Non-Methane Organic Compound (TGNMOC) Emissions from Composting Operations.* South Coast Air Quality Management District. November 16, 1995 and January 24 & 26, 1996.

represented in this document as being equivalent to VOC. Using this factor and since the total Facility is proposing to process a total of 60,000 tons per year of bovine/chicken manure, the Project will produce an estimated 279.5 lbs per day of fugitive VOC from composting operations. Additionally, project emissions from composting operations include 2.47 lbs per day of sulfur compounds and 94.8 tons per year of NH_3. Detailed composting emission calculations are presented in Appendix A. It is important to note that the increase in emissions associated with the increased processing rate of 30,000 tons per year of bovine/chicken manure, the Project's VOC emission increase would be 139.7 lbs per day.

On-site Compost Processing Emissions

The Facility operates 10 hours per day Monday through Friday and 8 hours on Saturday during their busy season. Busy season for bovine material is typically June through October. Busy season for the poultry material is March through May. Total Facility annual operations is estimated at 45 weeks. The Facility will use one 14-foot 234 horsepower Scarab self-propelled compost turner that will run 5 hours per day, 3 days per week during season and approximately 1,296 hours per year; two wheeled loaders that operate approximately 3 hours per day, 3 days per week, each, and an estimated 720 hours per year for each; and one stationary agricultural irrigation pump that will operate 6-7 hours per day, 3 days a week during peak season and approximately 1,250 hours per year. In addition, the Facility plans to operate a water truck to water dirt roads on the Facility. It is assumed that water trucks would be used conservatively for 8 months per year, 6 days per week and 2 hours per day.

Horsepower for the compost turner was supplied by SpreadCo. Other horsepower data for other equipment are from Appendix D (Data Tables) in the User's Guide[42] for the California Emissions Estimator Model (CalEEMod®) Version 2016.3.2. Emission factors for all year 2020 equipment also came from these Data Tables. The Data Table information for load factors was not used since the CalEEMod program uses 2007 OFFROAD default load factors. Emissions for off-road sources are shown in **Table 10** and detailed emissions calculations are presented in Appendix A.

Table 10 – On-site Compost Processing Emissions

On-site Equipment Type	Pounds per day				
	ROG	CO	NO_x	PM_{10}	$PM_{2.5}$
Compost Turner	0.32	1.43	3.90	0.12	0.11
Loader	0.08	0.86	0.80	0.05	0.05
Rubber-tired Loader	0.14	0.60	1.63	0.05	0.05
Ag Pump	0.37	3.29	3.09	0.18	0.15
Water Truck	0.16	0.90	1.50	0.05	0.05
TOTAL	**1.1**	**7.1**	**10.9**	**0.5**	**0.4**

42 *California Emissions Estimator Model, User's Guide, Version 2016.3.2.* California Air Pollution Control Officers Association. November 2017.

Off-site Transport Emissions

The Facility uses eleven commercial Class-8 trucks with double trailers to bring raw material into the Facility and to haul compost out to their customers. Detailed information of SpreadCo's truck fleet is presented in Appendix A. Bovine material is currently brought in from six sites within a 15-mile radius of the Facility; including two ButterSpur Cattle Feeders feedlots; Superior Cattle's Main Yard, Kershaw Feed Lot, Hannon Feed Yard, and Cameiro Heifer Ranch. In addition, the Facility is currently permitted to receive poultry material from northern San Diego County or Riverside County.

SpreadCo is proposing to expand the existing bovine annual receiving from 25,000 wet tons per year (tpy) to 40,000 wet tpy and the existing poultry annual receiving from 5,000 tpy to 20,000 wet tpy. The increased total annual throughput of 30,000 wet tpy would allow the Facility to operate more consistently throughout the year but will not increase the number of daily on-road trucks. SpreadCo expects no change in the previously permitted daily on-site operations because with the current operations, the Facility has long periods of down time where equipment is not in use.

To be consistent with assumptions proposed in AQA2013 and in order to estimate a worst-case scenario, all incoming raw material traffic from feedlots was estimated conservatively at 30 miles round-trip. Since the Pine Hill Egg Ranch is located outside of Imperial County truck mileage for delivery of poultry manure is estimated only for the Imperial County portion of their trip for the purpose of criteria pollutant estimations but includes the entire route for GHG estimates. It is assumed that the trucks would arrive via Highway 78, which is estimated to be 93 one-way miles from the Pine Hill Egg Ranch, with 38 one-way miles occurring within the Imperial County borders.

SpreadCo reported the average distance for customers receiving compost product is 15 to 20 miles, therefore in order to estimate a worst-case scenario, all outgoing compost traffic to customers was estimated at 40 miles round-trip.

On-road emission factors were obtained by applying emission rates supplied from the CARB EMFAC2014 Web-based Emission Rates Database[43] for the year 2020 in the County of Imperial. Emission factors were calculated for each fleet truck's model year and averaged together to obtain a fleet average. Employee emission factors were also obtained from EMFAC2014 with a weighted average for light duty automobiles and trucks, both gasoline and diesel. PM emission factors are a combination of running exhaust, tire wear, and brake wear. Emissions for incoming and outgoing on-road trucks and employee vehicles are shown in **Table 11** and detailed emissions calculations are presented in Appendix A. A summation of each activity type is presented as total pounds per day emissions as a worst-case estimation, whereas in fact, incoming bovine manure and incoming poultry manure with not normally overlap.

On-site Fugitive Dust Emissions

The Facility site will emit fugitive dust emissions from receiving and stockpiling; open windrow composting; and finished compost load-out operations. This AQS uses a methodology suggested by the ICAPCD, which

[43] *EMFAC2014 Web Database*. California Air Resources Board. http://www.arb.ca.gov/emfac/2014/. Accessed February 2019.

suggests the use of AP-42[44] factor for crushed stone as a conservative estimate for outdoor feedstock organic waste material receiving and conveyor transfer points with water spray PM_{10} control efficiency of 70%.

Table 11 – Off-site Transport Emissions

Activity	Pounds per day				
	ROG	CO	NOx	PM_{10}	$PM_{2.5}$
Incoming Bovine	0.03	0.13	1.46	0.06	0.03
Incoming Poultry	0.17	0.75	8.30	0.36	0.15
Employees	0.01	0.46	0.06	0.01	0.01
Outgoing Compost	0.07	0.32	3.53	0.15	0.06
TOTAL	***0.3***	***1.7***	***13.4***	***0.6***	***0.2***

Off-site Road Dust Emissions

The transport trucks using the Facility and the commuting employees will create fugitive road dust during transport and employee commute. Road dust is earthen material or dirt that becomes airborne, primarily by the friction of tires moving on unpaved dirt roads and dust-covered paved roads. The off-site travel of trucks and employees on both paved and un-paved roads that would result from this Project would generate fugitive road dust. Emissions were calculated using AP-42's 2011 update to Section 13.2.1 Paved Roads. Per the ICAPCD, 50 percent of employee's vehicular travel in Imperial County is assumed to be on unpaved roads but this AQS assumed that 100 percent of the heavy truck traffic will be on paved roads.

Summary of Project Emissions

A summary of off-site criteria emissions for transport, employee commute, and fugitive entrained road dust are presented in Error! Reference source not found.. The ICAPCD CEQA Handbook[45] states that the Initial Study should "compare all operational emissions of a project, including motor vehicle, area source, and stationary or point sources to the thresholds". However, the Handbook also states that for industrial development projects, the Guideline's thresholds should be used only to determine CEQA significance of the impact from mobile source emissions attracted to the stationary source.

In addition to the mobile source emissions attracted to the Project, as an existing permitted stationary source, the determination of the Project's changes in emissions resulting from the stationary source modifications were analyzed. **Table 13** shows a summary of on-site emissions from composting equipment, fugitive dust, and fugitive emissions from composting operations associated with the facility. As shown in **Table 13**, the full operations of the facility's increase plus existing emissions would create emissions of VOC that may exceed offset emissions levels. Currently, there are no known mitigations, other than the Best Management Practices (BMPs) discussed below, that reduce fugitive VOC emissions beyond any known thresholds. Therefore, a

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44 *Compilation of Air Pollutant Emission Factors (AP-42), Fifth Edition. Volume 1: Stationary Point and Area Sources.* Office of Air Quality Planning and Standards. United States Environmental Protection Agency. January 1995.

45 *CEQA Air Quality Handbook: Guidelines for the Implementation of the California Air Quality Act of 1970, as amended.* Imperial County Air Pollution Control District, December 12, 2017.

more detailed analysis of on-site emissions will be conducted during the permitting process to determine official offset conditions.

Table 12 – Total Off-site Emissions

Sources	Pounds per day				
	ROG	CO	NO_x	PM_{10}	$PM_{2.5}$
Off-site Transport	0.27	1.19	13.29	0.57	0.24
Off-site Employee Commute	0.01	0.46	0.06	0.01	0.01
Off-site Road Dust	---	---	---	48.77	5.22
Totals	***0.3***	***1.7***	***13.4***	***49.4***	***5.5***
Operational (Off-site) Thresholds	*137*	*550*	*137*	*150*	*550*
Significant? (Y/N)	N	N	N	N	N

Table 13 – Total On-site Emissions

Sources	Pounds per day				
	ROG	CO	NO_x	PM_{10}	SO_x
On-site Equipment	1.06	7.09	10.91	0.47	*negligible*
On-site Fugitive Dust	---	---	---	0.39	---
On-site Fugitive Composting	279.45	---	---	---	2.47
Totals	***280.5***	***7.1***	***10.9***	***0.9***	***2.47***
Offset Thresholds	*137*	*137*	*137*	*137*	*137*

Best Management Practices

The composting process produces a variety of volatile compounds, some of which are considered malodorous. Common odorous compounds emitted from these facilities include terpenes, reduced sulfur compounds, ammonia and other nitrogenous compounds, and volatile fatty acids.[46] In 2004, the California Integrated Waste Management Board (CIWMB) initiated a project, known as the Comprehensive Compost Odor Response Project (CCORP) in partnership with San Diego State University to develop solutions to odor complaints plaguing composting facilities. A Contractor's Report to the Board[47] presented efforts in five components including; 1) literature review, 2) odor assessment; 3) mitigation alternative research; a mitigation strategy menu; and a local government guide.

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46 *Mitigation of odor causing emissions—Bench-scale investigation.* Fatih Büyüksönmez, Robert Rynk, Asli Yucel, and Matt Cotton. San Diego State University. Journal of the Air & Waste Management Association, 62:12, 1423-1430, DOI: 10.1080/10962247.2012.716808. November 30, 2012.

47 *Contractor's Report to the Board.* Comprehensive Compost Odor Response Project. San Diego State University. March 2007.

The California Department of Resources Recycling and Recovery (CalRecycle) presents a list of Best Management Practices[48] (BMPs) that would optimize the variables associated with composting that may significantly reduce composting emissions. CalRecycle notes that most composters do these things purposefully; others may do it unwittingly, inconsistently, or not at all.

- **Initial carbon-nitrogen ratio:** Piles which have too much nitrogen may lose nitrogen to the atmosphere in gaseous form. Excessive carbon may slow or halt decomposition.
- **Moisture content:** Piles which are too wet may go anaerobic. Piles which are too dry may not compost well or may get too hot. In California, composters generally add water to piles during the warm months and when aerating. In other sections of the country, piles must be protected from excessive rain.
- **Temperature:** Piles which are too hot kill valuable micro-organisms and may volatize more compounds than is optimal. Cold temperatures may indicate an anaerobic pile. Composters are required to maintain pile temperatures greater than 131°F for 15 days in order to kill pathogens.
- **Oxygen content:** Lack of oxygen impedes or kills aerobic organisms, leading to anaerobic conditions. Blowers inject oxygen deep into the pile. Windrow turners fluff up the pile, allowing oxygen to penetrate. Lowering the bulk density of composting feedstocks generally improves oxygen content. Oxygen penetration into actively composting piles can be enhanced by blending in large particles, such as oversized materials screened out at the end of the compost process.

A potential feasible mitigation would be the use of a pseudo-biofilter added to top of windrows for at least the first week. The CCORP Report concluded that the application of finished compost as blanket, commonly referred to as a pseudo-biofilter[49], has resulted in a considerable reduction in NH_3 and VOC emissions. The CCORP Report states that finished a finished compost layer does not require acquisition of chemicals or costly emission control systems and only utilizes what is already available on site, it can be an easy and cost-effective way of controlling NH_3 and VOCs.

Cumulative Evaluation

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts incorporates a summary of projections. The following three-tiered approach is to assess cumulative air quality impacts.

- Consistency with the ICAPCD project specific thresholds for construction and operation;
- Project consistency with existing air quality plans; and
- Assessment of the cumulative health effects of the pollutants.

Project Specific Thresholds

As established above, total off-site emissions of from the Project are not expected to exceed the ICAPCD Regional Significance Thresholds. Permitted emissions of VOC and NH_3 would potentially exceed permitted

48 *Air Emissions Reduction from Composting and Related Facilities.* California Department of Resources Recycling and Recovery. https://www.calrecycle.ca.gov/organics/air. Accessed May 2019.

49 Pseudo-biofilter is a layer of finished compost applied to the top of new windrows for at least the first week.

limits but application of feasible mitigation would reduce those impacts. It is assumed that emissions that do not exceed the project specific thresholds will not result in a cumulative impact.

Air Quality Plans

The area in which the Project is located is in nonattainment for ozone and PM_{10}. As such, the ICAPCD is required to prepare and maintain an AQMP to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the ICAPCD does not have direct authority over land use decisions, it was recognized that changes in land use and circulation planning were necessary to maintain clean air. As discussed above in Impact 1, the Project is compliant with the AQMP and would not result in a significant impact.

Cumulative Health Impacts

The area is in nonattainment for ozone and PM_{10}, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect the health of sensitive individuals (i.e., elderly, children, and the sick). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some of the sensitive individuals of the population experience adverse health effects.

As seen in **Table 12**, emissions from the total Facility will not exceed the ICAPCD's Regional Operational Thresholds and neither will the Project's incremental increase of operations in conjunction with feasible mitigation.

The localized significance analysis in **Impact AQ-3** demonstrated that during Project operations, no localized significance threshold was expected to be exceeded; therefore, the emissions of particulate matter and NO_X would not result in a significant cumulative health impact.

Level of Significance before Mitigation: Less than significant impacts.

Mitigation Measures: No mitigation measures are necessary.

Level of Significance After Mitigation: No significant adverse impacts were identified, and no mitigation measures are necessary.

IMPACT AQ-3 – Would the Project expose sensitive receptors to substantial pollutant concentrations?

The Project is in a remote location with the a few farm residences and one school within two miles. The amount of emissions detailed in **Impact AQ-2** does not constitute enough emissions to create the potential for substantial pollutant concentrations.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are necessary.

Level of Significance After Mitigation: No significant adverse impacts were identified, and no mitigation measures are necessary.

IMPACT AQ-4 – Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The Facility is in a remote area and there are not a substantial number of people in the vicinity. The Facility has been operating in this location for over seven years and odor has not been a problem. In addition, the adjacent feedlot produces stronger odors that the composting facility.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are necessary.

Level of Significance After Mitigation: No significant adverse impacts were identified, and no mitigation measures are necessary.

IMPACT GHG-1 – Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

According to the EPA's *Technical Support Document*[50] *for Manure Management Systems*, GHG reporting for manure management systems are limited to CH_4 and N_2O. Manure management also produces CO_2; however, this CO_2 is not counted in GHG totals as it is not considered an anthropogenic emission.

In addition, the Climate Action Reserve (CAR), the most experienced, trusted, and efficient offset registry to serve the California cap-and-trade program and the voluntary carbon market, suggests in their Organic Waste Composting Project Protocol[51] suggests that for emissions from aerobic composting, CO_2 emissions are excluded because they are biogenic emission and only CH_4 and N_2O emissions are to be included depending on the type of composting as well as the management of the composting process.

To estimate Facility GHG emissions, on-road transportation-related and off-road mobile process GHG emissions were estimated using similar methodology as mentions in **Impact AQ-2** discussion. For on-road sources EMFAC the only GHG emission factor supplied is for CO_2. In order to present a more comprehensive representation of GHG emissions from on-road sources, emission factors for CH_4 and N_2O obtained from the Local Governments Operations Protocol[52] were used. In addition, fugitive composting emissions were estimated using CH_4 emission factors from the EKO Systems Source Test referenced in the discussion of **Impact AQ-2** and N_2O emission factors from a 2001 study[53] published in the *Journal of Environmental Quality*, was conducted to compare emissions between active and passive windrow composting.

Whereas it has been long known that composting has an overall beneficial effect when looking holistically at the effect on GHG emissions, only recently have efforts been made to quantify compost benefits in terms of a compost emission reduction factor (CERF). Since compost application used for agricultural operations reduces the amount of synthetic fertilizer needed, reduces the amount of water used, decreases soil erosion, increases

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50 *Technical Support Document for Manure Management Systems: Proposed Rule for Mandatory Reporting of Greenhouse Gases.* U.S. Environmental Protection Agency, Climate Change Division. February 4, 2009.

51 *Organic Waste Composting Project Protocol, Version 1.0.* Climate Action Reserve. June 30, 2010.

52 *Local Government Operations Protocol: For the quantification and reporting of greenhouse gas emissions inventories. Version 1.1.* California Air Resources Board, California Climate Action Registry, ICLEI - Local Governments for Sustainability, and The Climate Registry. May 2010

53 *Greenhouse Gas Emissions during Cattle Feedlot Manure Composting.* Xiying, Hao, Chi Chang, Francis J. Larney, and Greg R. Travis. *J. Environ. Qual.* 30:376-386 (2001)

soil carbon storage, and reduces the use of herbicides, CARB has established a life-cycle method[54] to quantify the GHG emission reductions from using compost, or CERF. When using compost as an agriculture amendment will result in a CERF of 0.54 tCO_2e per ton of feedstock.

Total on-road, off-road, and composting GHG emissions and related GHG emissions reductions are presented in **Table 14.** Detailed calculations are presented in Appendix A.

Table 14 – Total GHG Emissions

Sources	Total Tonnes Per Year			
	CO_2	CH_4	N_2O	CO_2e
Off-site Transport	269.95	0.0016	0.0012	270.3
Off-site Employee Commute	9.61	0.0008	0.0003	9.7
On-site Equipment	178.03	0.0459	N/A	179.2
On-site Fugitive Composting	**	73.724	10.579	4,827.8
Total Emissions	**457.6**	**73.77**	**10.58**	**5,287**
Life-cycle emission reductions				32,400
Total Net GHG Emissions				***-27,113***

** *CO_2 emissions from composting are biogenic*

Since the SCAQMD proposes that if a project generates GHG emissions exceeding 3,000 tCO_2e per year, a project's GHG emissions could be significant; however, when also applying the benefits to climate change that composting provides, the net GHG emissions from this Project would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are necessary.

Level of Significance After Mitigation: No significant adverse impacts were identified and no mitigation measures are necessary.

IMPACT GHG-2 – Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Neither the County of Imperial or ICAPCD have any specific plans, policies, nor regulations adopted for reducing the emissions of GHGs. However, since the long-term, operational GHG emissions are minimal and the construction emissions are short-term, the Project would not conflict with any applicable plan, policy, or regulation adopted for reducing the emissions of GHGs.

Additionally, the Agriculture Sub Group of the Climate Action Team included a Composting Measure for Air Board's consideration and potential inclusion in the Scoping Plan. The Measure was a potential voluntary

54 *Method for Estimating Greenhouse Gas Emission Reductions from Compost from Commercial Organic Waste.* California Air Resources Board, Planning and Technical Support Division. November 14, 2011.

action that could be implemented to further several State policy objectives, provided it was economically feasible. The Measure recognized that composting plant waste and/or livestock manure on-farm or at regional facilities is one measure to manage GHG emissions from the agricultural sector. The project is one of the voluntary composting facilities; therefore, will not conflict with State plans.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are necessary.

Level of Significance After Mitigation: No significant adverse impacts were identified and no mitigation measures are necessary.

Summary of Emissions

Off-site Criteria Emissions

Sources	Pounds per day				
	ROG	CO	NO_X	PM_{10}	$PM_{2.5}$
Off-site Transport	0.27	1.19	13.29	0.57	0.24
Off-site Employee Commute	0.01	0.46	0.06	0.01	0.01
Off-site Road Dust	---	---	---	48.77	5.22
Totals	***0.3***	***1.7***	***13.4***	***49.4***	***5.5***

On-site Criteria Emissions

Sources	Pounds per day				
	ROG	CO	NO_X	PM_{10}	SO_X
On-site Equipment	1.06	7.09	10.91	0.47	*negligible*
On-site Fugitive Dust	---	---	---	0.39	---
On-site Fugitive Composting	307.96	---	---	---	2.47
Totals	***309.0***	***7.1***	***10.9***	***0.9***	***2.47***

GHG Emissions

Sources	Total Tonnes Per Year			
	CO_2	CH_4	N_2O	CO_2e
Off-site Transport	269.95	0.0016	0.0012	270.3
Off-site Employee Commute	9.61	0.0008	0.0003	9.7
On-site Equipment	178.03	0.0459	N/A	179.2
On-site Fugitive Composting	**	73.724	10.579	4,827.8
Total Emissions	***457.6***	***73.77***	***10.58***	***5,287***
Life-cycle emission reductions				32,400
Total Net GHG Emissions				***-27,113***

** *CO_2 emissions from composting are biogenic*

Other Composting Emissions

Pollutant	lb/d	t/y
Sulfur Compounds	2.72	0.50
Ammonia (NH_3)	153.98	56.20

Composting Emissions

Contaminant	Emission Factor (lb/ton mix)	Project Increase		Proposed	
		t/y	lbs/d	t/y	lbs/d
NH_3	3.28	54.2	297.1	108.4	594.2
Sulfur Compounds	0.015	0.2	1.4	0.5	2.7
CH_4	2.23	36.9	202.0	73.7	404.0
VOC (TGNMOC)	1.7	28.1	154.0	56.2	308.0
N_2O **	0.32	5.3	29.0	10.6	58.0

Project Increase Feedstock (tons) = 30,000
Proposed Annual Feedstock (tons) = 60,000

** Total Facility Emissions Based on Average of 2-day, 20-day, and 50-day piles*

Source Test Report for EKO Systems. Characterization of Ammonia, Total Amine, Organic Sulfur Compounds, and Total Non-methane Organic Compound (TGNMOC) Emissions from Composting Operations. November 16, 1995 and January 24 & 26, 1996

*** N_2O emissions from a study in Journal of Environmental Quality which determined N_2O emission factors to be 0.16 kg per tonne of manure.*

Conversions	
0.16	kg per tonne of manure
2.205	kg per pound
0.353	lbs per tonne of manure
1.102	tons per tonne
0.320	lbs per ton of manure

GHG Emission Reductions from Composting Benefits

Reduction Type	Reduction Factor (tCO_2e/ton of feedstock)	Amount Reduced (tCO_2e/yr)
Increased Soil Carbon Storage	0.26	15,600
Decreased Water Use	0.02	1,200
Decreased Soil Erosion	0.13	7,800
Decreased Fertilizer Use	0.13	7,800
Decreased Herbicide Use	0	0
	Total Reduction	***32,400***

Annual Feedstock (tons) = 60,000

Method for Estimating Greenhouse Gas Emission Reductions from Compost from Commercial Organic Waste, CARB. November 14, 2011

Off-site Transport Emissions

Truck Activity

Activity	Length (months)	Total Trips (days)	Trips per day	Round Trip (mi)	VMT per day	Annual VMT (mi)
Incoming Bovine	5	130	32	17	264	34,464
Incoming Poultry	3	78	20	75	1,503	3,724
Outgoing Compost	8	209	32	40	640	133,486

Note: Worst-case maximum trucks per day is analyzed at 32

VMT per day for incoming poultry counts only Imperial County miles

Light Duty Vehicle Activity

Expanded Activity	Length (months)	Total Trips (days)	Trips per day	Round Trip (mi)	VMT per day	Annual VMT (mi)
Employees	10.4	270	3	40	120	32,400

Criteria Emissions

Activity	Pounds per day				
	ROG	CO	NO_X	PM_{10}	$PM_{2.5}$
Incoming Bovine	0.03	0.13	1.46	0.06	0.03
Incoming Poultry	0.17	0.75	8.30	0.36	0.15
Employees	0.01	0.46	0.06	0.01	0.01
Outgoing Compost	0.07	0.32	3.53	0.15	0.06
Totals	***0.3***	***1.7***	***13.4***	***0.6***	***0.2***
Subtotals for Trucks	***0.27***	***1.19***	***13.29***	***0.57***	***0.24***

GHG Emissions

Activity	Tonnes per Year			
	CO_2	CH_4	N_2O	CO_2e
Incoming Bovine	52.26	0.0002	0.0002	52.3
Incoming Poultry	5.65	0.0000	0.0000	5.7
Employees	9.61	0.0008	0.0003	9.7
Outgoing Compost	202.42	0.0007	0.0006	202.6
Totals	***269.9***	***0.002***	***0.001***	***270.3***

2020 On Road Fleet Truck Emission Factors

Model Year	Company Vehicle #	Emission Factors (grams per mile)							
		ROG	CO	NO_X	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
2009	24	0.1228	0.3369	8.8538	0.1330	0.0692	1,632.5	0.0051	0.0048
2009	25	0.1228	0.3369	8.8538	0.1330	0.0692	1,632.5	0.0051	0.0048
2015	28	0.0278	0.1642	0.3223	0.1013	0.0389	1,382.6	0.0051	0.0048
2011	29	0.0528	0.2437	2.4112	0.1081	0.0454	1,588.3	0.0051	0.0048
2012	30	0.0371	0.2190	1.4588	0.1028	0.0403	1,574.3	0.0051	0.0048
2012	31	0.0371	0.2190	1.4588	0.1028	0.0403	1,574.3	0.0051	0.0048
2012	32	0.0371	0.2190	1.4588	0.1028	0.0403	1,574.3	0.0051	0.0048
2012	33	0.0371	0.2190	1.4588	0.1028	0.0403	1,574.3	0.0051	0.0048
2015	34	0.0278	0.1642	0.3223	0.1013	0.0389	1,382.6	0.0051	0.0048
2014	35	0.0298	0.1758	0.4750	0.1016	0.0392	1,382.6	0.0051	0.0048
2014	36	0.0298	0.1758	0.4750	0.1016	0.0392	1,382.6	0.0051	0.0048
Fleet Average		***0.051***	***0.225***	***2.504***	***0.108***	***0.046***	***1,516***	***0.005***	***0.005***

** Emission Factors from EMFAC2014 (v1.0.7) Database for T7 Tractors in year 2020 operating in County of Imperial (http://www.arb.ca.gov/emfac/2014/)*

** PM emmission factors are a combination of running exhaust, tire wear, and brake wear*

** CH_4 and N_2O factors come from Emission Factors for Greenhouse Gas Inventories: Table 4 Mobile Combustion CH_4 and N_2O for On-Road Diesel and Alternative Fuel Vehicles. US Environmental Protection Agency. Last Modified: 9 March 2018*

SpreadCo Truck Fleet

Make	Comp ID#	Model	Year	Plate	Control?
Peterbilt	24	388	2009	9F04900	PM Filter - OE
Peterbilt	25	388	2009	9E80496	PM Filter - OE
Peterbilt	28	579	2015	WP32733	PM Filter - OE
Peterbilt	29	386	2011	WP50074	PM Filter - OE
Peterbilt	30	386	2012	WP65610	PM Filter - OE
Peterbilt	31	386	2012	WP73426	PM Filter - OE
Peterbilt	32	384	2012	WP75068	PM Filter - OE
Peterbilt	33	384	2012	WP75069	PM Filter - OE
Peterbilt	34	579	2015	XP02485	PM Filter - OE
Freightliner	35	Cascadia	2014	XP24632	PM Filter - OE
Freightliner	36	Cascadia	2014	XP24583	PM Filter - OE

Data from California Air Resources Board's Trucks Regulation Upload, Compliance, and Reporting System (TRUCRS), Fleet Reporting Page (February 18. 2019).

On-site Equipment Emissions

Equipment Activity

Equipment Type	HP	Load Factor	Activity			
			hrs/d	d/wk	hrs/yr	d/yr
Scarab Compost Turner	234	0.42	5	3	1,296	259
Loader	98	0.37	3	3	720	240
Rubber Tired Loader	200	0.36	3	3	720	240
Ag Pump	84	0.74	7	3	1,250	179
Water Truck	381	0.38	2	6	540	270

Criteria Emissions

Equipment Type	Pounds per day				
	ROG	CO	NO_x	PM_{10}	$PM_{2.5}$
Compost Turner	0.32	1.43	3.90	0.12	0.11
Loader	0.08	0.86	0.80	0.05	0.05
Rubber-tired Loader	0.14	0.60	1.63	0.05	0.05
Ag Pump	0.37	3.29	3.09	0.18	0.18
Water Truck	0.16	0.90	1.50	0.05	0.05
Totals	***1.1***	***7.1***	***10.9***	***0.5***	***0.4***

GHG Emissions

Equipment Type	tonnes per year		
	CO_2	CH_4	CO_2e
Compost Turner	60.05	0.0194	60.54
Loader	12.38	0.0040	12.48
Rubber-tired Loader	24.34	0.0079	24.54
Ag Pump	44.16	0.0026	44.22
Water Truck	37.10	0.0120	37.40
Totals	***178.0***	***0.046***	***179.2***

Notes

* *Horsepower of compost turner supplied by SpreadCo.*
* *Other horsepowers and emfacs are from CalEEMod™* Users Guide, Appendix D
* *Load factors are from Carl Moyer*

Off-Road Equipment (2020)

Type	HP	Load Factor	Activity			Emission Factors (g/bhp-hr)						
			hrs/d	d/wk	hrs/yr	ROG	CO	NO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4
Scarab Compost Turner	234	0.42	5	3	1,296	0.29	1.32	3.60	0.12	0.11	471.5	0.152
Loader	98	0.37	3	3	720	0.33	3.60	3.33	0.21	0.19	474.2	0.154
Rubber Tired Loader	200	0.36	3	3	720	0.29	1.27	3.42	0.11	0.10	469.5	0.152
Ag Pump	84	0.74	7	3	1,250	0.39	3.43	3.22	0.19	0.19	568.3	0.034
Water Truck	381	0.38	2	6	540	0.25	1.41	2.35	0.09	0.08	474.6	0.153

* *Number and use data supplied by SpreadCo*
* *Horsepower of compost turner supplied by SpreadCo*
* *CARB equipment type for compost turner is Other Material Handling Equipment*
* *Other horsepowers and 2020 emission factors are from CalEEMod™ Version 2016.3.2 Users Guide, Appendix D (November 2017)*
* *Load factors are from Carl Moyer*
* *Water truck hours per year are based on an 8 month schedule*

On-site Facility Fugitive Dust

Facility fugitive dust emissions are estimated using the methodology described in ICAPCD Authority to Construct and Permit to Operate Review for Permit #4335 (9/11/14).

The ICAPCD suggests the use of AP-42 factor for crushed stone as a conservative estimate for outdoor feedstock organic waste material receiving and conveyor transfer points with water spray PM_{10} control efficiency of 70%.

Controlled PM_{10} Emission Factor =	0.00033	*lbs/ton of feedstock*
Max Annual Feedstock =	60,000	tons
Compost Annual Operations =	259	days/year
Load Annual Operations =	240	days/year

Emissions

Operation	# drop points	Feedstock	PM_{10} Emissions	
		t/d	lb/d	t/y
Receiving and Stockpiling	2	231.5	0.15	0.020
Open Windrow Composting	1	250.0	0.08	0.010
Finished Compost Load-out	2	231.5	0.15	0.020
		Facility Total	***0.39***	***0.050***

Off-site Operational Entrained Road Dust

Entrained road dust emissions are generated by vehicles traveling on both paved and unpaved roads. These equations are based on the paved and unpaved roads emission factors found in Section 5.3 of Appendix A, CalEEMod Users Guide, version 2016.3.2 and AP-42 Sections 13.2.1 and 13.2.2.

Emission Factors - Paved Roads

EF PM_{10} = $[k * (sL^{0.91}) * (W^{1.02})] * (1 - P/4N) =$ 0.00065 lbs PM_{10}/VMT

EF $PM_{2.5}$ = 0.00016 lbs $PM_{2.5}$/VMT

Constant	Description	Value
k =	PM_{10} particle size multiplier for particle size range and units of interest	0.0022
	$PM_{2.5}$ particle size multiplier for particle size range and units of interest	0.00054
sL =	road surface silt loading in g/m^2 (allowable range is 0.02 to 400 g/m^2)	0.1
W =	average weight of the vehicles traveling the road in tons (mean average fleet vehicle weight ranging from 1.5 - 3 tons)	2.4
P =	number of "wet" days with at least 0.01 in)ches of precipitation during the averaging period	35
N =	number of days in the averaging period (e.g., 365 for annual, 91 for seasonal, 30 for monthly)	365

Emission Factors - Unpaved Roads

EF PM_{10} = $(k * (s/12)^1 * (S/30)^{0.5} / (M/0.5)^{0.2} - C) * (1 - P/365) =$ 0.6729 lbs PM_{10}/VMT

EF $PM_{2.5}$ = 0.0670 lbs $PM_{2.5}$/VMT

Constant	Description	Value
k =	PM_{10} particle size multiplier for particle size range and units of interest	1.8
	$PM_{2.5}$ particle size multiplier for particle size range and units of interest	0.18
s =	surface material silt content (%) (allowable range 1.8 - 35 %)	4.3
M =	surface moisture content (%) (allowable range 0.03 – 13 %)	0.5
S =	the average vehicle speed (mph) - (allowable range [10 - 55 mph])	40
C =	PM_{10} emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear	0.00047
	$PM_{2.5}$ emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear	0.00036
P =	number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period	35

Activity	VMT per day		Emissions in pounds per day							
			Paved Roads		Unpaved Roads		Total Roads		Mitigated	
	Paved	Unpaved	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$
Incoming Bovine	264	0	0.582	0.143	0.0	0.0	0.582	0.143	0.250	0.061
Incoming Poultry	1,503	0	3.307	0.812	0.0	0.0	3.307	0.812	1.422	0.349
Outgoing Compost	640	0	1.408	0.346	0.0	0.0	1.408	0.346	0.605	0.149
Employees	60	60	0.132	0.032	108.000	10.800	108.132	10.832	46.497	4.658
TOTAL	***2,468***	***60***	***5.43***	***1.33***	***108.00***	***10.80***	***113.43***	***12.13***	***48.77***	***5.22***

Mitigation of 57% for traffic speed restriction

EMFAC2014 (v1.0.7)

2020 Estimated Annual Emission Rates

EMFAC2011 Vehicle Categories

Imperial COUNTY

Vehicle Info			Emission Factor (grams/mile)											
Type	Fuel	VMT	ROG	CO	NO_X	PM_{10}			$PM_{2.5}$			CO_2	CH_4	N_2O
						Exhaust	TW+BW	Total	Exhaust	TW+BW	Total			
LDA	GAS	3,064,802	0.0662	1.8682	0.2552	0.0015	0.0448	0.0462	0.0014	0.0178	0.0191	271.8	0.0177	0.0052
LDA	DSL	31,086	0.0181	0.1827	0.1036	0.0118	0.0448	0.0565	0.0113	0.0178	0.0290	243.1	0.0005	0.0010
LDT1	GAS	210,289	0.0657	2.7613	0.2975	0.0029	0.0448	0.0476	0.0026	0.0178	0.0204	324.3	0.0261	0.0231
LDT1	DSL	242	0.1376	0.9296	1.1150	0.1088	0.0448	0.1536	0.1041	0.0178	0.1218	347.3	0.0015	0.0010
LDT2	GAS	1,017,315	0.0244	1.1662	0.1418	0.0016	0.0448	0.0463	0.0014	0.0178	0.0192	367.8	0.0405	0.0251
LDT2	DSL	1,775	0.0114	0.0993	0.0579	0.0050	0.0448	0.0498	0.0048	0.0178	0.0226	317.9	0.0015	0.0010
Weighted Avg for Employees			***0.0560***	***1.7336***	***0.2295***	***0.0017***	***0.0448***	***0.0464***	***0.0015***	***0.0178***	***0.0193***	***296.7***	***0.0235***	***0.0107***

Notes: - Criteria and CO_2 factors come from EMFAC2014 for Calendar Year 2020 and represent Estimated Annual Emission Rates for Imperial County

- CH_4 and N_2O factors come EPA's Emission Factors for Greenhouse Gas Inventories, last modified April 4, 2014, are applied to the weighted average of vehicular usage in Imperial County from data in EMFAC2014 for calendar year 2020

Butterspur Compost Operations

EXISTING

Type of manure	Volume of material (wet tons)											
	Received				Active and curing phase piles				Finished compost loaded out			
	Total	peak	annual	daily	Total	peak	annual	daily	Total	peak	annual	daily
Bovine	25,000	700	25,000	375	5,000	700	25,000	375	25,000	700	25,000	375
Chicken	5,000	100	5,000	100	5,000	100	5,000	100	5,000	100	5,000	100
TOTAL	***30,000***	***800***	***30,000***	***475***	***10,000***	***800***	***30,000***	***475***	***30,000***	***800***	***30,000***	***475***

PROPOSED

Type of manure	Volume of material (wet tons)											
	Received				Active and curing phase piles				Finished compost loaded out			
	Total	peak	annual	daily	Total	peak	annual	daily	Total	peak	annual	daily
Bovine	40,000	700	40,000	375	5,000	700	40,000	375	40,000	700	40,000	375
Chicken	20,000	200	20,000	100	3,000	100	20,000	100	20,000	100	20,000	100
TOTAL	***60,000***	***900***	***60,000***	***475***	***8,000***	***800***	***60,000***	***475***	***60,000***	***800***	***60,000***	***475***

PROJECT INCREASE

Type of manure	Volume of material (wet tons)											
	Received				Active and curing phase piles				Finished compost loaded out			
	Total	peak	annual	daily	Total	peak	annual	daily	Total	peak	annual	daily
Bovine	15,000	NC	15,000	NC	NC	NC	15,000	NC	15,000	NC	15,000	NC
Chicken	15,000	100	15,000		-2,000		15,000		15,000		15,000	
TOTAL	***30,000***	***100***	***30,000***		***-2,000***		***30,000***		***30,000***		***30,000***	

Weekly Schedule

Mon-Fri - 6am-4pm

Sat - 6am-2pm

Sun - Closed

Site Information

Incoming Bovine Sources	one way (mi)	trips/day	VMT/day
Superior Main	13.8	1.6	44.2
Kershaw Feed Lot	9.3	6.4	119.0
Hannon Feed Yard	8.1	1.6	26.0
Cameiro Heifer Ranch	13.7	9.6	263.0
ButterspurW	5.8	6.4	74.2
ButterspurE	0.2	6.4	2.3
Incoming Bovine Avgs/Totals	**8.3**	**32**	**529**
Incoming Poultry Source	**one way (mi)**	**trips/day**	**VMT/ Year**
Pine Hill Egg Ranch	93.1	20	3,724
	one way (mi)		**VMT/day**
	37.6		1,503
Outgoing Compost	**one way (mi)**	**trips/day**	**VMT/day**
Various Location	20	40	1,600

Trips per day information is based on expected activity per site.

CH_4 and N_2O Factors for Gasoline Usage for 2020 in Imperial County

Veh Class	Model Year	Population per Day	VMT per Day	Fuel Use gpd	mpg	g/mile		Grams	
						CH_4	N_2O	CH_4	N_2O
LDA	1976	45.2	368.8	28.599	12.90	0.1406	0.0458	51.85	16.89
LDA	1977	63.1	534.9	41.337	12.94	0.1406	0.0458	75.21	24.50
LDA	1978	74.1	654.0	50.259	13.01	0.1389	0.0473	90.83	30.93
LDA	1979	81.6	749.4	57.207	13.10	0.1389	0.0473	104.10	35.45
LDA	1980	42.2	404.3	29.216	13.84	0.1326	0.0499	53.61	20.17
LDA	1981	42.1	419.3	22.815	18.38	0.0802	0.0626	33.63	26.25
LDA	1982	35.2	365.9	19.950	18.34	0.0795	0.0627	29.09	22.94
LDA	1983	41.2	444.4	23.976	18.54	0.0782	0.0630	34.75	28.00
LDA	1984	54.9	617.3	33.034	18.69	0.0704	0.0647	43.46	39.94
LDA	1985	81.7	944.4	47.977	19.69	0.0704	0.0647	66.49	61.11
LDA	1986	77.1	927.5	44.262	20.95	0.0704	0.0647	65.29	60.01
LDA	1987	114.2	1,414.5	66.824	21.17	0.0704	0.0647	99.58	91.52
LDA	1988	108.4	1,393.3	65.691	21.21	0.0704	0.0647	98.09	90.15
LDA	1989	121.4	1,620.8	76.665	21.14	0.0704	0.0647	114.11	104.87
LDA	1990	163.3	2,250.8	106.911	21.05	0.0704	0.0647	158.46	145.63
LDA	1991	177.4	2,527.7	121.069	20.88	0.0704	0.0647	177.95	163.54
LDA	1992	182.2	2,680.4	128.238	20.90	0.0704	0.0647	188.70	173.42
LDA	1993	201.1	3,062.1	137.287	22.30	0.0704	0.0647	215.57	198.12
LDA	1994	257.8	4,057.3	179.481	22.61	0.0531	0.0560	215.44	227.21
LDA	1995	332.5	5,416.1	235.294	23.02	0.0358	0.0473	193.90	256.18
LDA	1996	351.5	5,923.5	255.720	23.16	0.0272	0.0426	161.12	252.34
LDA	1997	457.4	7,979.2	345.182	23.12	0.0268	0.0422	213.84	336.72
LDA	1998	590.1	10,653.7	463.974	22.96	0.0241	0.0379	256.75	403.78
LDA	1999	723.9	13,537.6	588.019	23.02	0.0216	0.0337	292.41	456.22
LDA	2000	1,084.6	21,013.0	926.690	22.68	0.0178	0.0273	374.03	573.65
LDA	2001	1,216.6	24,425.9	1,062.038	23.00	0.0110	0.0158	268.69	385.93
LDA	2002	1,322.5	27,544.9	1,193.379	23.08	0.0107	0.0153	294.73	421.44
LDA	2003	1,565.0	33,816.3	1,463.9	23.10	0.0115	0.0133	388.89	449.76
LDA	2004	1,779.7	39,936.2	1,731.5	23.06	0.0157	0.0063	627.00	251.60
LDA	2005	2,522.7	58,868.1	2,516.4	23.39	0.0164	0.0051	965.44	300.23
LDA	2006	2,659.3	64,533.3	2,740.5	23.55	0.0161	0.0057	1,038.99	367.84
LDA	2007	3,000.0	75,774.8	3,204.8	23.64	0.0170	0.0041	1,288.17	310.68
LDA	2008	2,654.2	69,870.6	2,942.9	23.74	0.0172	0.0038	1,201.77	265.51
LDA	2009	2,151.7	59,102.3	2,463.7	23.99	0.0173	0.0036	1,022.47	212.77
LDA	2010	2,764.8	79,449.3	3,298.3	24.09	0.0173	0.0036	1,374.47	286.02
LDA	2011	2,704.2	81,407.4	3,358.6	24.24	0.0173	0.0036	1,408.35	293.07
LDA	2012	3,578.7	113,666.9	4,263.2	26.66	0.0173	0.0036	1,966.44	409.20
LDA	2013	4,806.6	161,041.9	5,876.6	27.40	0.0173	0.0036	2,786.02	579.75
LDA	2014	5,382.2	191,304.7	6,750.9	28.34	0.0173	0.0036	3,309.57	688.70
LDA	2015	5,950.6	225,439.4	7,616.9	29.60	0.0173	0.0036	3,900.10	811.58
LDA	2016	6,473.4	263,059.3	8,500.0	30.95	0.0173	0.0036	4,550.93	947.01
LDA	2017	6,809.6	299,526.8	9,103.5	32.90	0.0173	0.0036	5,181.81	1,078.30
LDA	2018	7,103.5	342,772.7	10,049.6	34.11	0.0173	0.0036	5,929.97	1,233.98
LDA	2019	7,094.8	384,626.1	10,826.6	35.53	0.0173	0.0036	6,654.03	1,384.65
LDA	2020	5,903.3	378,674.5	10,290.2	36.80	0.0173	0.0036	6,551.07	1,363.23
LDA		**82,948**	**3,064,802**	**103,349**	**22.9**	**0.018**	**0.005**	**54,117**	**15,881**

CH_4 and N_2O Factors for Gasoline Usage for 2020 in Imperial County

VehClass	MdlYr	Population perDay	VMT per Day	Fuel Use gpd	mpg	g/mile		Grams	
						CH_4	N_2O	CH_4	N_2O
LDT1	1976	27.8	234.1	19.6	11.92	0.1594	0.0555	37.31	12.99
LDT1	1977	44.3	384.3	32.3	11.91	0.1614	0.0534	62.02	20.52
LDT1	1978	37.7	342.9	28.7	11.95	0.1614	0.0534	55.34	18.31
LDT1	1979	38.6	363.1	26.4	13.76	0.1594	0.0555	57.88	20.15
LDT1	1980	33.5	326.9	23.6	13.85	0.1594	0.0555	52.11	18.15
LDT1	1981	35.1	355.3	20.6	17.27	0.1479	0.0660	52.56	23.45
LDT1	1982	37.3	393.1	22.4	17.54	0.1442	0.0681	56.68	26.77
LDT1	1983	32.4	356.2	19.5	18.26	0.1368	0.0722	48.73	25.72
LDT1	1984	51.0	586.5	32.2	18.21	0.1294	0.0764	75.89	44.81
LDT1	1985	70.2	837.4	44.8	18.67	0.1220	0.0806	102.16	67.49
LDT1	1986	98.7	1,222.4	64.5	18.94	0.1146	0.0848	140.09	103.66
LDT1	1987	108.0	1,365.8	71.9	19.00	0.0813	0.1035	111.04	141.36
LDT1	1988	121.1	1,564.3	81.8	19.12	0.0813	0.1035	127.17	161.90
LDT1	1989	119.7	1,614.2	84.8	19.03	0.0813	0.1035	131.23	167.07
LDT1	1990	107.4	1,479.1	77.7	19.03	0.0813	0.1035	120.25	153.09
LDT1	1991	124.5	1,763.4	92.3	19.10	0.0813	0.1035	143.37	182.51
LDT1	1992	88.5	1,299.7	68.1	19.09	0.0813	0.1035	105.66	134.52
LDT1	1993	111.1	1,683.0	79.9	21.06	0.0813	0.1035	136.82	174.19
LDT1	1994	139.7	2,181.6	102.0	21.38	0.0646	0.0982	140.93	214.23
LDT1	1995	135.8	2,190.8	101.9	21.50	0.0517	0.0908	113.27	198.93
LDT1	1996	131.3	2,196.5	102.0	21.53	0.0452	0.0871	99.28	191.31
LDT1	1997	243.1	4,139.7	192.3	21.53	0.0452	0.0871	187.11	360.57
LDT1	1998	233.7	4,159.4	192.3	21.62	0.0412	0.0778	171.37	323.60
LDT1	1999	239.0	4,377.1	201.6	21.71	0.0333	0.0593	145.76	259.56
LDT1	2000	248.6	4,713.0	233.9	20.15	0.0340	0.0607	160.24	286.08
LDT1	2001	265.0	5,206.6	257.7	20.21	0.0221	0.0326	115.07	169.73
LDT1	2002	243.2	4,953.0	244.5	20.26	0.0242	0.0378	119.86	187.22
LDT1	2003	160.5	3,382.4	166.4	20.33	0.0225	0.0330	76.10	111.62
LDT1	2004	126.0	2,758.8	134.1	20.57	0.0162	0.0098	44.69	27.04
LDT1	2005	86.7	1,953.8	94.8	20.61	0.0160	0.0081	31.26	15.83
LDT1	2006	145.8	3,413.2	165.3	20.65	0.0159	0.0088	54.27	30.04
LDT1	2007	215.6	5,239.0	253.2	20.69	0.0161	0.0079	84.35	41.39
LDT1	2008	365.7	9,242.3	445.6	20.74	0.0163	0.0066	150.65	61.00
LDT1	2009	198.8	5,283.6	254.1	20.79	0.0163	0.0066	86.12	34.87
LDT1	2010	88.7	2,463.8	118.3	20.83	0.0163	0.0066	40.16	16.26
LDT1	2011	69.0	1,995.7	95.6	20.87	0.0163	0.0066	32.53	13.17
LDT1	2012	197.5	5,945.1	244.3	24.34	0.0163	0.0066	96.90	39.24
LDT1	2013	264.8	8,369.3	333.4	25.10	0.0163	0.0066	136.42	55.24
LDT1	2014	289.8	9,675.5	374.4	25.84	0.0163	0.0066	157.71	63.86
LDT1	2015	324.1	11,483.8	423.1	27.14	0.0163	0.0066	187.19	75.79
LDT1	2016	352.6	13,341.4	468.4	28.49	0.0163	0.0066	217.47	88.05
LDT1	2017	372.0	15,163.3	527.8	28.73	0.0163	0.0066	247.16	100.08
LDT1	2018	389.7	17,340.9	581.8	29.81	0.0163	0.0066	282.66	114.45
LDT1	2019	408.6	20,337.3	663.8	30.64	0.0163	0.0066	331.50	134.23
LDT1	2020	385.1	22,610.6	711.4	31.78	0.0163	0.0066	368.55	149.23
LDT1		**7,607**	**210,289**	**8,575**	**20.8**	**0.026**	**0.023**	**5,494.9**	**4,859.3**

CH_4 and N_2O Factors for Gasoline Usage for 2020 in Imperial County

VehClass	MdlYr	Population perDay	VMT per Day	Fuel Use gpd	mpg	g/mile		Grams	
						CH_4	N_2O	CH_4	N_2O
LDT2	1976	37.5	314.1	27.0	11.65	0.4604	0.0497	144.62	15.61
LDT2	1977	30.3	264.0	22.6	11.67	0.4604	0.0497	121.54	13.12
LDT2	1978	45.0	405.9	34.8	11.68	0.4604	0.0497	186.87	20.17
LDT2	1979	37.3	349.8	26.2	13.35	0.4604	0.0497	161.03	17.38
LDT2	1980	17.5	170.2	12.5	13.61	0.4604	0.0497	78.35	8.46
LDT2	1981	21.4	214.8	17.0	12.61	0.4604	0.0497	98.91	10.68
LDT2	1982	14.3	150.3	11.8	12.77	0.4492	0.0538	67.53	8.09
LDT2	1983	23.0	248.6	19.0	13.11	0.4492	0.0538	111.66	13.37
LDT2	1984	71.7	788.2	60.4	13.04	0.4492	0.0538	354.05	42.40
LDT2	1985	67.0	762.2	57.4	13.28	0.0490	0.0515	37.35	39.25
LDT2	1986	77.1	909.3	60.7	14.98	0.0490	0.0515	44.56	46.83
LDT2	1987	54.5	673.2	44.7	15.05	0.3675	0.0849	247.39	57.15
LDT2	1988	58.9	758.4	50.1	15.15	0.3492	0.0933	264.85	70.76
LDT2	1989	82.0	1,082.7	71.9	15.05	0.3492	0.0933	378.09	101.02
LDT2	1990	72.0	993.1	65.9	15.08	0.3246	0.1142	322.35	113.41
LDT2	1991	93.3	1,337.3	88.3	15.14	0.3246	0.1142	434.07	152.72
LDT2	1992	88.4	1,306.2	86.4	15.11	0.3246	0.1142	424.00	149.17
LDT2	1993	109.3	1,671.5	99.4	16.82	0.3246	0.1142	542.55	190.88
LDT2	1994	144.5	2,264.3	132.6	17.07	0.3246	0.1142	734.99	258.58
LDT2	1995	189.9	3,071.2	178.8	17.17	0.3246	0.1142	996.93	350.74
LDT2	1996	184.7	3,087.7	179.6	17.20	0.1278	0.1680	394.61	518.73
LDT2	1997	240.8	4,161.6	241.7	17.22	0.0924	0.1726	384.53	718.29
LDT2	1998	350.1	6,200.8	359.1	17.27	0.0655	0.1750	406.15	1,085.14
LDT2	1999	340.3	6,282.9	362.0	17.36	0.0646	0.1721	405.88	1,081.29
LDT2	2000	495.3	9,447.4	548.7	17.22	0.0630	0.1650	595.19	1,558.82
LDT2	2001	528.4	10,409.5	602.9	17.27	0.0578	0.1435	601.67	1,493.76
LDT2	2002	638.7	12,931.2	747.4	17.30	0.0634	0.1664	819.84	2,151.74
LDT2	2003	723.3	15,212.8	877.8	17.33	0.0603	0.1534	917.33	2,333.64
LDT2	2004	856.5	18,713.4	1,062.9	17.61	0.0323	0.0195	604.44	364.91
LDT2	2005	1,100.6	24,811.7	1,406.4	17.64	0.0329	0.0162	816.31	401.95
LDT2	2006	1,065.9	24,838.6	1,404.9	17.68	0.0318	0.0227	789.87	563.84
LDT2	2007	1,056.5	25,706.1	1,450.5	17.72	0.0333	0.0134	856.01	344.46
LDT2	2008	838.8	21,238.2	1,195.9	17.76	0.0333	0.0134	707.23	284.59
LDT2	2009	484.8	12,791.1	718.7	17.80	0.0333	0.0134	425.94	171.40
LDT2	2010	996.1	27,293.8	1,530.7	17.83	0.0333	0.0134	908.88	365.74
LDT2	2011	1,392.0	39,798.0	2,227.6	17.87	0.0333	0.0134	1,325.27	533.29
LDT2	2012	1,330.7	39,996.5	1,918.9	20.84	0.0333	0.0134	1,331.88	535.95
LDT2	2013	1,612.8	50,967.6	2,370.8	21.50	0.0333	0.0134	1,697.22	682.97
LDT2	2014	1,786.1	59,629.1	2,694.6	22.13	0.0333	0.0134	1,985.65	799.03
LDT2	2015	1,996.1	70,735.5	3,043.2	23.24	0.0333	0.0134	2,355.49	947.86
LDT2	2016	2,156.6	81,608.4	3,345.6	24.39	0.0333	0.0134	2,717.56	1,093.55
LDT2	2017	2,237.6	91,237.7	3,708.6	24.60	0.0333	0.0134	3,038.21	1,222.58
LDT2	2018	2,327.4	103,615.5	4,059.6	25.52	0.0333	0.0134	3,450.40	1,388.45
LDT2	2019	2,401.8	119,606.1	4,559.0	26.24	0.0333	0.0134	3,982.88	1,602.72
LDT2	2020	2,031.2	119,258.9	4,382.2	27.21	0.0333	0.0134	3,971.32	1,598.07
LDT2		**30,508**	**1,017,315**	**46,167**	**17.3**	**0.041**	**0.025**	**41,241.5**	**25,522.6**

CH_4 and N_2O Factors for Diesel Usage for 2020 in Imperial County

Veh Class	Model Year	Population per Day	VMT per Day	Fuel Use gpd	mpg	g/mile		Grams	
						CH_4	N_2O	CH_4	N_2O
LDA	1976	1.33	11.0	0.38	28.85	0.0006	0.0012	0.007	0.013
LDA	1977	3.31	27.9	0.97	28.85	0.0006	0.0012	0.017	0.033
LDA	1978	6.05	53.0	1.84	28.85	0.0006	0.0012	0.032	0.064
LDA	1979	10.27	94.2	3.26	28.85	0.0006	0.0012	0.057	0.113
LDA	1980	7.67	73.9	2.56	28.85	0.0006	0.0012	0.044	0.089
LDA	1981	10.93	109.3	3.79	28.85	0.0006	0.0012	0.066	0.131
LDA	1982	9.89	103.2	3.58	28.85	0.0006	0.0012	0.062	0.124
LDA	1983	11.23	120.8	4.13	29.25	0.0005	0.0010	0.060	0.121
LDA	1984	9.21	102.6	3.19	32.21	0.0005	0.0010	0.051	0.103
LDA	1985	8.80	101.4	3.15	32.21	0.0005	0.0010	0.051	0.101
LDA	1986	0.79	9.7	0.30	32.21	0.0005	0.0010	0.005	0.010
LDA	1987	2.03	25.7	0.80	32.21	0.0005	0.0010	0.013	0.026
LDA	1988	0.37	4.7	0.14	32.21	0.0005	0.0010	0.002	0.005
LDA	1989	0.32	4.2	0.13	32.21	0.0005	0.0010	0.002	0.004
LDA	1990	0.07	0.9	0.03	32.21	0.0005	0.0010	0.000	0.001
LDA	1991	1.05	14.7	0.46	32.21	0.0005	0.0010	0.007	0.015
LDA	1992	0.95	13.8	0.43	32.21	0.0005	0.0010	0.007	0.014
LDA	1993	0.05	0.8	0.02	32.21	0.0005	0.0010	0.000	0.001
LDA	1994	0.25	3.9	0.12	32.21	0.0005	0.0010	0.002	0.004
LDA	1995	0.88	14.3	0.44	32.21	0.0005	0.0010	0.007	0.014
LDA	1996	0.17	3.0	0.09	32.21	0.0005	0.0010	0.001	0.003
LDA	1997	0.41	7.1	0.22	32.21	0.0005	0.0010	0.004	0.007
LDA	1998	2.80	50.4	1.57	32.21	0.0005	0.0010	0.025	0.050
LDA	1999	1.90	35.5	1.10	32.21	0.0005	0.0010	0.018	0.035
LDA	2000	2.04	39.6	1.23	32.21	0.0005	0.0010	0.020	0.040
LDA	2001	1.22	24.4	0.76	32.21	0.0005	0.0010	0.012	0.024
LDA	2002	4.13	85.9	2.67	32.21	0.0005	0.0010	0.043	0.086
LDA	2003	5.47	118.1	3.67	32.21	0.0005	0.0010	0.059	0.118
LDA	2004	1.65	37.0	1.15	32.21	0.0005	0.0010	0.018	0.037
LDA	2005	2.88	66.7	2.07	32.21	0.0005	0.0010	0.033	0.067
LDA	2006	3.13	75.5	2.34	32.21	0.0005	0.0010	0.038	0.075
LDA	2007	0.15	3.7	0.12	32.21	0.0005	0.0010	0.002	0.004
LDA	2008	0.15	3.7	0.12	32.28	0.0005	0.0010	0.002	0.004
LDA	2009	11.16	305.0	9.45	32.28	0.0005	0.0010	0.153	0.305
LDA	2010	10.09	282.6	8.76	32.28	0.0005	0.0010	0.141	0.283
LDA	2011	21.22	629.8	19.51	32.28	0.0005	0.0010	0.315	0.630
LDA	2012	28.92	910.0	25.68	35.44	0.0005	0.0010	0.455	0.910
LDA	2013	57.14	1,914.4	52.59	36.41	0.0005	0.0010	0.957	1.914
LDA	2014	63.99	2,274.5	60.53	37.58	0.0005	0.0010	1.137	2.275
LDA	2015	71.44	2,706.6	69.06	39.19	0.0005	0.0010	1.353	2.707
LDA	2016	77.81	3,161.8	77.31	40.90	0.0005	0.0010	1.581	3.162
LDA	2017	81.86	3,600.6	82.95	43.40	0.0005	0.0010	1.800	3.601
LDA	2018	87.06	4,200.8	93.55	44.91	0.0005	0.0010	2.100	4.201
LDA	2019	88.87	4,817.8	103.20	46.69	0.0005	0.0010	2.409	4.818
LDA	2020	75.48	4,841.7	100.35	48.25	0.0005	0.0010	2.421	4.842
LDA		**786.6**	**31,086**	**749.7**	**33.5**	**0.001**	**0.001**	**15.59**	**31.18**

CH_4 and N_2O Factors for Diesel Usage for 2020 in Imperial County

Veh Class	Model Year	Population per Day	VMT per Day	Fuel Use gpd	mpg	g/mile		Grams	
						CH_4	N_2O	CH_4	N_2O
LDT1	1976	0.01	0.2	0.01	24.94	0.0011	0.0017	0.000	0.000
LDT1	1977	0.01	0.2	0.01	24.94	0.0011	0.0017	0.000	0.000
LDT1	1978	0.02	0.3	0.01	24.94	0.0011	0.0017	0.000	0.000
LDT1	1979	0.03	0.4	0.02	24.94	0.0011	0.0017	0.000	0.001
LDT1	1980	0.07	0.9	0.04	24.94	0.0011	0.0017	0.001	0.001
LDT1	1981	1.24	12.7	0.51	24.94	0.0011	0.0017	0.014	0.022
LDT1	1982	4.22	44.3	1.78	24.94	0.0011	0.0017	0.049	0.075
LDT1	1983	1.32	14.7	0.58	25.28	0.0009	0.0014	0.013	0.021
LDT1	1984	0.20	3.0	0.11	27.84	0.0009	0.0014	0.003	0.004
LDT1	1985	0.16	2.4	0.09	27.84	0.0009	0.0014	0.002	0.003
LDT1	1986	1.00	11.8	0.42	27.84	0.0009	0.0014	0.011	0.016
LDT1	1987	0.49	6.0	0.22	27.84	0.0009	0.0014	0.005	0.008
LDT1	1988	0.02	0.3	0.01	27.84	0.0009	0.0014	0.000	0.000
LDT1	1989	0.02	0.3	0.01	27.84	0.0009	0.0014	0.000	0.000
LDT1	1990	0.02	0.3	0.01	27.84	0.0009	0.0014	0.000	0.000
LDT1	1991	0.01	0.2	0.01	27.84	0.0009	0.0014	0.000	0.000
LDT1	1992	0.01	0.2	0.01	27.84	0.0009	0.0014	0.000	0.000
LDT1	1993	0.02	0.4	0.01	27.84	0.0009	0.0014	0.000	0.001
LDT1	1994	0.01	0.2	0.01	27.84	0.0009	0.0014	0.000	0.000
LDT1	1995	0.02	0.3	0.01	27.84	0.0009	0.0014	0.000	0.000
LDT1	1996	0.02	0.4	0.01	27.84	0.0010	0.0015	0.000	0.001
LDT1	1997	0.45	7.5	0.27	27.84	0.0010	0.0015	0.008	0.011
LDT1	1998	0.03	0.6	0.02	27.84	0.0010	0.0015	0.001	0.001
LDT1	1999	0.04	0.8	0.03	27.84	0.0010	0.0015	0.001	0.001
LDT1	2000	0.03	0.8	0.03	27.84	0.0010	0.0015	0.001	0.001
LDT1	2001	0.03	0.7	0.03	27.84	0.0010	0.0015	0.001	0.001
LDT1	2002	1.15	22.6	0.81	27.84	0.0010	0.0015	0.023	0.034
LDT1	2003	0.04	0.9	0.03	27.84	0.0010	0.0015	0.001	0.001
LDT1	2004	0.00	0.1	0.00	27.84	0.0010	0.0015	0.000	0.000
LDT1	2005	0.00	0.0	0.00	27.84	0.0010	0.0015	0.000	0.000
LDT1	2006	0.73	16.7	0.60	27.84	0.0010	0.0015	0.017	0.025
LDT1	2007	0.07	1.9	0.07	27.84	0.0010	0.0015	0.002	0.003
LDT1	2008	0.05	1.5	0.05	27.90	0.0010	0.0015	0.001	0.002
LDT1	2009	0.83	21.4	0.77	27.90	0.0010	0.0015	0.021	0.032
LDT1	2010	0.02	0.5	0.02	27.90	0.0010	0.0015	0.000	0.001
LDT1	2011	0.01	0.3	0.01	27.90	0.0010	0.0015	0.000	0.000
LDT1	2012	0.02	0.8	0.02	32.49	0.0010	0.0015	0.001	0.001
LDT1	2013	0.15	4.7	0.14	33.48	0.0010	0.0015	0.005	0.007
LDT1	2014	0.16	5.4	0.16	34.42	0.0010	0.0015	0.005	0.008
LDT1	2015	0.18	6.4	0.18	36.10	0.0010	0.0015	0.006	0.010
LDT1	2016	0.20	7.4	0.20	37.84	0.0010	0.0015	0.007	0.011
LDT1	2017	0.21	8.4	0.22	38.10	0.0010	0.0015	0.008	0.013
LDT1	2018	0.22	9.6	0.24	39.46	0.0010	0.0015	0.010	0.014
LDT1	2019	0.23	11.3	0.28	40.47	0.0010	0.0015	0.011	0.017
LDT1	2020	0.21	12.6	0.30	41.85	0.0010	0.0015	0.013	0.019
LDT1		**14.0**	**242**	**8.3**	**29.2**	**0.002**	**0.001**	**0.24**	**0.37**

CH_4 and N_2O Factors for Diesel Usage for 2020 in Imperial County

Veh Class	Model Year	Population per Day	VMT per Day	Fuel Use	mpg	g/mile		Grams	
				gpd		CH_4	N_2O	CH_4	N_2O
LDT2	1976	0.00	0.0	0.00	21.35	0.0011	0.0017	0.000	0.000
LDT2	1977	0.01	0.1	0.00	21.35	0.0011	0.0017	0.000	0.000
LDT2	1978	0.01	0.1	0.00	21.35	0.0011	0.0017	0.000	0.000
LDT2	1979	0.01	0.2	0.01	21.35	0.0011	0.0017	0.000	0.000
LDT2	1980	0.01	0.2	0.01	21.35	0.0011	0.0017	0.000	0.000
LDT2	1981	0.60	6.0	0.28	21.35	0.0011	0.0017	0.007	0.010
LDT2	1982	0.06	0.8	0.04	21.35	0.0011	0.0017	0.001	0.001
LDT2	1983	0.02	0.2	0.01	21.65	0.0009	0.0014	0.000	0.000
LDT2	1984	0.02	0.2	0.01	23.84	0.0009	0.0014	0.000	0.000
LDT2	1985	0.01	0.1	0.01	23.84	0.0009	0.0014	0.000	0.000
LDT2	1986	0.01	0.2	0.01	23.84	0.0009	0.0014	0.000	0.000
LDT2	1987	0.00	0.0	0.00	23.84	0.0009	0.0014	0.000	0.000
LDT2	1988	0.00	0.0	0.00	23.84	0.0009	0.0014	0.000	0.000
LDT2	1989	0.00	0.1	0.00	23.84	0.0009	0.0014	0.000	0.000
LDT2	1990	0.00	0.0	0.00	23.84	0.0009	0.0014	0.000	0.000
LDT2	1991	0.00	0.1	0.00	23.84	0.0009	0.0014	0.000	0.000
LDT2	1992	0.00	0.0	0.00	23.84	0.0009	0.0014	0.000	0.000
LDT2	1993	0.00	0.0	0.00	23.84	0.0009	0.0014	0.000	0.000
LDT2	1994	0.00	0.0	0.00	23.84	0.0009	0.0014	0.000	0.000
LDT2	1995	0.00	0.0	0.00	23.84	0.0009	0.0014	0.000	0.000
LDT2	1996	0.00	0.0	0.00	23.84	0.0010	0.0015	0.000	0.000
LDT2	1997	0.00	0.0	0.00	23.84	0.0010	0.0015	0.000	0.000
LDT2	1998	0.00	0.0	0.00	23.84	0.0010	0.0015	0.000	0.000
LDT2	1999	0.00	0.0	0.00	23.84	0.0010	0.0015	0.000	0.000
LDT2	2000	0.01	0.2	0.01	23.84	0.0010	0.0015	0.000	0.000
LDT2	2001	0.00	0.1	0.00	23.84	0.0010	0.0015	0.000	0.000
LDT2	2002	0.00	0.1	0.00	23.84	0.0010	0.0015	0.000	0.000
LDT2	2003	0.44	9.0	0.38	23.84	0.0010	0.0015	0.009	0.013
LDT2	2004	0.00	0.0	0.00	23.84	0.0010	0.0015	0.000	0.000
LDT2	2005	0.02	0.5	0.02	23.84	0.0010	0.0015	0.000	0.001
LDT2	2006	0.62	14.2	0.60	23.84	0.0010	0.0015	0.014	0.021
LDT2	2007	0.06	1.6	0.07	23.84	0.0010	0.0015	0.002	0.002
LDT2	2008	0.74	18.2	0.76	23.89	0.0010	0.0015	0.018	0.027
LDT2	2009	0.04	1.1	0.05	23.89	0.0010	0.0015	0.001	0.002
LDT2	2010	0.82	22.0	0.92	23.89	0.0010	0.0015	0.022	0.033
LDT2	2011	0.23	7.1	0.30	23.89	0.0010	0.0015	0.007	0.011
LDT2	2012	5.16	157.1	5.65	27.82	0.0010	0.0015	0.157	0.236
LDT2	2013	3.55	112.3	3.92	28.67	0.0010	0.0015	0.112	0.168
LDT2	2014	3.94	131.4	4.46	29.47	0.0010	0.0015	0.131	0.197
LDT2	2015	4.40	155.9	5.04	30.91	0.0010	0.0015	0.156	0.234
LDT2	2016	4.75	179.8	5.55	32.40	0.0010	0.0015	0.180	0.270
LDT2	2017	4.93	201.1	6.16	32.62	0.0010	0.0015	0.201	0.302
LDT2	2018	5.13	228.3	6.76	33.79	0.0010	0.0015	0.228	0.343
LDT2	2019	5.29	263.6	7.61	34.65	0.0010	0.0015	0.264	0.395
LDT2	2020	4.48	262.8	7.33	35.83	0.0010	0.0015	0.263	0.394
LDT2		**45.4**	**1,775**	**56.0**	**25.0**	**0.002**	**0.001**	**1.78**	**2.66**

CH_4 and N_2O Factors for Diesel Usage for 2020 in Imperial County

Veh Class	Model Year	Population per Day	VMT per Day	Fuel Use gpd	mpg	g/mile		Grams	
						CH_4	N_2O	CH_4	N_2O
T7 Ag	1976	12.61	65.0	13.60	4.78	0.0051	0.0048	0.332	0.312
T7 Ag	1977	1.68	10.1	2.07	4.90	0.0051	0.0048	0.052	0.049
T7 Ag	1978	1.92	11.2	2.30	4.87	0.0051	0.0048	0.057	0.054
T7 Ag	1979	2.73	17.4	3.52	4.93	0.0051	0.0048	0.089	0.083
T7 Ag	1980	2.28	15.9	3.18	4.99	0.0051	0.0048	0.081	0.076
T7 Ag	1981	1.89	13.8	2.74	5.02	0.0051	0.0048	0.070	0.066
T7 Ag	1982	1.39	11.1	2.18	5.07	0.0051	0.0048	0.056	0.053
T7 Ag	1983	1.34	11.4	2.23	5.11	0.0051	0.0048	0.058	0.055
T7 Ag	1984	2.80	22.5	4.44	5.08	0.0051	0.0048	0.115	0.108
T7 Ag	1985	2.89	23.8	4.68	5.09	0.0051	0.0048	0.121	0.114
T7 Ag	1986	2.63	23.5	4.58	5.14	0.0051	0.0048	0.120	0.113
T7 Ag	1987	2.98	28.4	5.36	5.29	0.0051	0.0048	0.145	0.136
T7 Ag	1988	3.59	33.0	6.26	5.27	0.0051	0.0048	0.168	0.158
T7 Ag	1989	3.42	31.0	5.89	5.27	0.0051	0.0048	0.158	0.149
T7 Ag	1990	4.41	40.8	7.73	5.28	0.0051	0.0048	0.208	0.196
T7 Ag	1991	2.93	26.8	4.92	5.44	0.0051	0.0048	0.137	0.129
T7 Ag	1992	2.22	22.6	4.11	5.51	0.0051	0.0048	0.115	0.109
T7 Ag	1993	2.93	31.2	5.62	5.55	0.0051	0.0048	0.159	0.150
T7 Ag	1994	3.46	37.6	6.50	5.79	0.0051	0.0048	0.192	0.180
T7 Ag	1995	4.17	50.3	8.60	5.84	0.0051	0.0048	0.256	0.241
T7 Ag	1996	3.23	41.3	7.02	5.88	0.0051	0.0048	0.210	0.198
T7 Ag	1997	2.78	37.7	6.38	5.91	0.0051	0.0048	0.192	0.181
T7 Ag	1998	2.69	38.5	6.64	5.80	0.0051	0.0048	0.196	0.185
T7 Ag	1999	2.72	40.9	7.08	5.78	0.0051	0.0048	0.209	0.196
T7 Ag	2000	3.47	50.4	8.74	5.76	0.0051	0.0048	0.257	0.242
T7 Ag	2001	1.84	28.7	4.95	5.80	0.0051	0.0048	0.146	0.138
T7 Ag	2002	1.46	25.6	4.38	5.84	0.0051	0.0048	0.131	0.123
T7 Ag	2003	1.35	26.7	4.50	5.93	0.0051	0.0048	0.136	0.128
T7 Ag	2004	1.38	27.9	4.70	5.94	0.0051	0.0048	0.142	0.134
T7 Ag	2005	1.50	28.3	4.79	5.92	0.0051	0.0048	0.144	0.136
T7 Ag	2006	1.21	26.8	4.48	5.97	0.0051	0.0048	0.137	0.129
T7 Ag	2007	1.40	36.4	6.10	5.97	0.0051	0.0048	0.186	0.175
T7 Ag	2008	0.50	14.0	2.56	5.46	0.0051	0.0048	0.071	0.067
T7 Ag	2009	1.05	35.5	6.38	5.57	0.0051	0.0048	0.181	0.170
T7 Ag	2010	0.44	13.7	2.47	5.55	0.0051	0.0048	0.070	0.066
T7 Ag	2011	0.15	5.4	0.94	5.80	0.0051	0.0048	0.028	0.026
T7 Ag	2012	20.66	746.7	127.24	5.87	0.0051	0.0048	3.808	3.584
T7 Ag	2013	1.91	69.4	11.82	5.87	0.0051	0.0048	0.354	0.333
T7 Ag	2014	1.75	64.1	9.59	6.69	0.0051	0.0048	0.327	0.308
T7 Ag	2015	1.74	64.4	9.62	6.69	0.0051	0.0048	0.328	0.309
T7 Ag		**117.5**	**1,950**	**411.8**	**7.4**	**0.005**	**0.005**	**9.94**	**9.36**

EMFAC2014 (v1.0.7) Emissions Inventory

Region: Imperial County
Calendar Year: 2016
Season: Annual Speed: Aggregated
Vehicle Classification: EMFAC2011 Categories

Daily Information for Diesel-Fueled Vehicles

Vehicle Year	LDA - Vehicle Class			LDT1 - Vehicle Class			LDT2 - Vehicle Class			T7 Ag - Vehicle Class		
	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use
1976	1.33	11.0	3.8E-04	0.01	0.2	6.2E-06	0.00	0.0	1.6E-06	12.61	65.0	1.4E-02
1977	3.31	27.9	9.7E-04	0.01	0.2	6.1E-06	0.01	0.1	3.1E-06	1.68	10.1	2.1E-03
1978	6.05	53.0	1.8E-03	0.02	0.3	1.1E-05	0.01	0.1	3.2E-06	1.92	11.2	2.3E-03
1979	10.27	94.2	3.3E-03	0.03	0.4	1.8E-05	0.01	0.2	8.5E-06	2.73	17.4	3.5E-03
1980	7.67	73.9	2.6E-03	0.07	0.9	3.5E-05	0.01	0.2	7.7E-06	2.28	15.9	3.2E-03
1981	10.93	109.3	3.8E-03	1.24	12.7	5.1E-04	0.60	6.0	2.8E-04	1.89	13.8	2.7E-03
1982	9.89	103.2	3.6E-03	4.22	44.3	1.8E-03	0.06	0.8	3.9E-05	1.39	11.1	2.2E-03
1983	11.23	120.8	4.1E-03	1.32	14.7	5.8E-04	0.02	0.2	1.0E-05	1.34	11.4	2.2E-03
1984	9.21	102.6	3.2E-03	0.20	3.0	1.1E-04	0.02	0.2	8.8E-06	2.80	22.5	4.4E-03
1985	8.80	101.4	3.1E-03	0.16	2.4	8.7E-05	0.01	0.1	6.1E-06	2.89	23.8	4.7E-03
1986	0.79	9.7	3.0E-04	1.00	11.8	4.2E-04	0.01	0.2	7.5E-06	2.63	23.5	4.6E-03
1987	2.03	25.7	8.0E-04	0.49	6.0	2.2E-04	0.00	0.0	2.0E-06	2.98	28.4	5.4E-03
1988	0.37	4.7	1.4E-04	0.02	0.3	1.2E-05	0.00	0.0	1.1E-06	3.59	33.0	6.3E-03
1989	0.32	4.2	1.3E-04	0.02	0.3	1.1E-05	0.00	0.1	3.1E-06	3.42	31.0	5.9E-03
1990	0.07	0.9	2.9E-05	0.02	0.3	1.1E-05	0.00	0.0	8.7E-07	4.41	40.8	7.7E-03
1991	1.05	14.7	4.6E-04	0.01	0.2	7.7E-06	0.00	0.1	2.1E-06	2.93	26.8	4.9E-03
1992	0.95	13.8	4.3E-04	0.01	0.2	8.7E-06	0.00	0.0	1.3E-06	2.22	22.6	4.1E-03
1993	0.05	0.8	2.5E-05	0.02	0.4	1.3E-05	0.00	0.0	1.4E-06	2.93	31.2	5.6E-03
1994	0.25	3.9	1.2E-04	0.01	0.2	7.2E-06	0.00	0.0	7.2E-07	3.46	37.6	6.5E-03
1995	0.88	14.3	4.4E-04	0.02	0.3	1.0E-05	0.00	0.0	7.6E-07	4.17	50.3	8.6E-03
1996	0.17	3.0	9.2E-05	0.02	0.4	1.3E-05	0.00	0.0	1.3E-06	3.23	41.3	7.0E-03
1997	0.41	7.1	2.2E-04	0.45	7.5	2.7E-04	0.00	0.0	1.5E-06	2.78	37.7	6.4E-03

Vehicle Year	LDA - Vehicle Class			LDT1 - Vehicle Class			LDT2 - Vehicle Class			T7 Ag - Vehicle Class		
	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use
1998	2.80	50.4	1.6E-03	0.03	0.6	2.0E-05	0.00	0.0	1.6E-06	2.69	38.5	6.6E-03
1999	1.90	35.5	1.1E-03	0.04	0.8	2.8E-05	0.00	0.0	1.1E-06	2.72	40.9	7.1E-03
2000	2.04	39.6	1.2E-03	0.03	0.8	2.7E-05	0.01	0.2	6.6E-06	3.47	50.4	8.7E-03
2001	1.22	24.4	7.6E-04	0.03	0.7	2.6E-05	0.00	0.1	4.8E-06	1.84	28.7	4.9E-03
2002	4.13	85.9	2.7E-03	1.15	22.6	8.1E-04	0.00	0.1	2.4E-06	1.46	25.6	4.4E-03
2003	5.47	118.1	3.7E-03	0.04	0.9	3.2E-05	0.44	9.0	3.8E-04	1.35	26.7	4.5E-03
2004	1.65	37.0	1.1E-03	0.00	0.1	2.8E-06	0.00	0.0	1.0E-06	1.38	27.9	4.7E-03
2005	2.88	66.7	2.1E-03	0.00	0.0	1.4E-06	0.02	0.5	2.0E-05	1.50	28.3	4.8E-03
2006	3.13	75.5	2.3E-03	0.73	16.7	6.0E-04	0.62	14.2	6.0E-04	1.21	26.8	4.5E-03
2007	0.15	3.7	1.2E-04	0.07	1.9	6.8E-05	0.06	1.6	6.9E-05	1.40	36.4	6.1E-03
2008	0.15	3.7	1.2E-04	0.05	1.5	5.3E-05	0.74	18.2	7.6E-04	0.50	14.0	2.6E-03
2009	11.16	305.0	9.5E-03	0.83	21.4	7.7E-04	0.04	1.1	4.6E-05	1.05	35.5	6.4E-03
2010	10.09	282.6	8.8E-03	0.02	0.5	1.6E-05	0.82	22.0	9.2E-04	0.44	13.7	2.5E-03
2011	21.22	629.8	2.0E-02	0.01	0.3	1.1E-05	0.23	7.1	3.0E-04	0.15	5.4	9.4E-04
2012	28.92	910.0	2.6E-02	0.02	0.8	2.4E-05	5.16	157.1	5.6E-03	20.66	746.7	1.3E-01
2013	57.14	1,914.4	5.3E-02	0.15	4.7	1.4E-04	3.55	112.3	3.9E-03	1.91	69.4	1.2E-02
2014	63.99	2,274.5	6.1E-02	0.16	5.4	1.6E-04	3.94	131.4	4.5E-03	1.75	64.1	9.6E-03
2015	71.44	2,706.6	6.9E-02	0.18	6.4	1.8E-04	4.40	155.9	5.0E-03	1.74	64.4	9.6E-03
2016	77.81	3,161.8	7.7E-02	0.20	7.4	2.0E-04	4.75	179.8	5.6E-03			
2017	81.86	3,600.6	8.3E-02	0.21	8.4	2.2E-04	4.93	201.1	6.2E-03			
2018	87.06	4,200.8	9.4E-02	0.22	9.6	2.4E-04	5.13	228.3	6.8E-03			
2019	88.87	4,817.8	1.0E-01	0.23	11.3	2.8E-04	5.29	263.6	7.6E-03			
2020	75.48	4,841.7	1.0E-01	0.21	12.6	3.0E-04	4.48	262.8	7.3E-03			

EMFAC2014 (v1.0.7) Emissions Inventory

Region: Imperial County
Calendar Year: 2016
Season: Annual Speed: Aggregated
Vehicle Classification: EMFAC2011 Categories

Daily Information for Gasoline-Fueled Vehicles

Vehicle Year	LDA - Vehicle Class			LDT1 - Vehicle Class			LDT2 - Vehicle Class		
	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use
1976	45.15	368.8	2.86E-02	27.76	234.1	1.96E-02	37.50	314.1	2.70E-02
1977	63.13	534.9	4.13E-02	44.25	384.3	3.23E-02	30.26	264.0	2.26E-02
1978	74.08	654.0	5.03E-02	37.66	342.9	2.87E-02	45.05	405.9	3.48E-02
1979	81.62	749.4	5.72E-02	38.61	363.1	2.64E-02	37.26	349.8	2.62E-02
1980	42.24	404.3	2.92E-02	33.53	326.9	2.36E-02	17.46	170.2	1.25E-02
1981	42.14	419.3	2.28E-02	35.07	355.3	2.06E-02	21.35	214.8	1.70E-02
1982	35.17	365.9	1.99E-02	37.30	393.1	2.24E-02	14.27	150.3	1.18E-02
1983	41.21	444.4	2.40E-02	32.40	356.2	1.95E-02	23.04	248.6	1.90E-02
1984	54.95	617.3	3.30E-02	50.95	586.5	3.22E-02	71.67	788.2	6.04E-02
1985	81.69	944.4	4.80E-02	70.24	837.4	4.48E-02	66.97	762.2	5.74E-02
1986	77.05	927.5	4.43E-02	98.68	1,222.4	6.45E-02	77.15	909.3	6.07E-02
1987	114.22	1,414.5	6.68E-02	107.95	1,365.8	7.19E-02	54.54	673.2	4.47E-02
1988	108.38	1,393.3	6.57E-02	121.13	1,564.3	8.18E-02	58.89	758.4	5.01E-02
1989	121.42	1,620.8	7.67E-02	119.72	1,614.2	8.48E-02	82.03	1,082.7	7.19E-02
1990	163.33	2,250.8	1.07E-01	107.39	1,479.1	7.77E-02	71.96	993.1	6.59E-02
1991	177.39	2,527.7	1.21E-01	124.54	1,763.4	9.23E-02	93.27	1,337.3	8.83E-02
1992	182.19	2,680.4	1.28E-01	88.54	1,299.7	6.81E-02	88.43	1,306.2	8.64E-02
1993	201.09	3,062.1	1.37E-01	111.11	1,683.0	7.99E-02	109.29	1,671.5	9.94E-02
1994	257.76	4,057.3	1.79E-01	139.67	2,181.6	1.02E-01	144.53	2,264.3	1.33E-01

Vehicle Year	LDA - Vehicle Class			LDT1 - Vehicle Class			LDT2 - Vehicle Class		
	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use	Pop	VMT	Fuel Use
1995	332.52	5,416.1	2.35E-01	135.84	2,190.8	1.02E-01	189.91	3,071.2	1.79E-01
1996	351.48	5,923.5	2.56E-01	131.26	2,196.5	1.02E-01	184.69	3,087.7	1.80E-01
1997	457.43	7,979.2	3.45E-01	243.06	4,139.7	1.92E-01	240.80	4,161.6	2.42E-01
1998	590.10	10,653.7	4.64E-01	233.72	4,159.4	1.92E-01	350.10	6,200.8	3.59E-01
1999	723.94	13,537.6	5.88E-01	238.97	4,377.1	2.02E-01	340.26	6,282.9	3.62E-01
2000	1,084.61	21,013.0	9.27E-01	248.57	4,713.0	2.34E-01	495.26	9,447.4	5.49E-01
2001	1,216.57	24,425.9	1.06E+00	265.03	5,206.6	2.58E-01	528.35	10,409.5	6.03E-01
2002	1,322.55	27,544.9	1.19E+00	243.25	4,953.0	2.45E-01	638.68	12,931.2	7.47E-01
2003	1,565.00	33,816.3	1.46E+00	160.48	3,382.4	1.66E-01	723.26	15,212.8	8.78E-01
2004	1,779.72	39,936.2	1.73E+00	125.97	2,758.8	1.34E-01	856.50	18,713.4	1.06E+00
2005	2,522.65	58,868.1	2.52E+00	86.66	1,953.8	9.48E-02	1,100.65	24,811.7	1.41E+00
2006	2,659.33	64,533.3	2.74E+00	145.79	3,413.2	1.65E-01	1,065.95	24,838.6	1.40E+00
2007	3,000.02	75,774.8	3.20E+00	215.60	5,239.0	2.53E-01	1,056.49	25,706.1	1.45E+00
2008	2,654.24	69,870.6	2.94E+00	365.70	9,242.3	4.46E-01	838.84	21,238.2	1.20E+00
2009	2,151.70	59,102.3	2.46E+00	198.78	5,283.6	2.54E-01	484.79	12,791.1	7.19E-01
2010	2,764.84	79,449.3	3.30E+00	88.65	2,463.8	1.18E-01	996.14	27,293.8	1.53E+00
2011	2,704.21	81,407.4	3.36E+00	68.96	1,995.7	9.56E-02	1,392.00	39,798.0	2.23E+00
2012	3,578.67	113,666.9	4.26E+00	197.52	5,945.1	2.44E-01	1,330.74	39,996.5	1.92E+00
2013	4,806.58	161,041.9	5.88E+00	264.78	8,369.3	3.33E-01	1,612.76	50,967.6	2.37E+00
2014	5,382.23	191,304.7	6.75E+00	289.78	9,675.5	3.74E-01	1,786.09	59,629.1	2.69E+00
2015	5,950.55	225,439.4	7.62E+00	324.08	11,483.8	4.23E-01	1,996.11	70,735.5	3.04E+00
2016	6,473.43	263,059.3	8.50E+00	352.62	13,341.4	4.68E-01	2,156.56	81,608.4	3.35E+00
2017	6,809.64	299,526.8	9.10E+00	372.01	15,163.3	5.28E-01	2,237.59	91,237.7	3.71E+00
2018	7,103.52	342,772.7	1.00E+01	389.70	17,340.9	5.82E-01	2,327.39	103,615.5	4.06E+00
2019	7,094.83	384,626.1	1.08E+01	408.64	20,337.3	6.64E-01	2,401.78	119,606.1	4.56E+00
2020	5,903.33	378,674.5	1.03E+01	385.10	22,610.6	7.11E-01	2,031.19	119,258.9	4.38E+00

ATTACHEMENT "A"

COUNTY OF IMPERIAL

DEPARTMENT OF PUBLIC WORKS

155 S. 11th Street
El Centro, CA
92243

Tel: (442) 265-1818
Fax: (442) 265-1858

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https://twitter.com/CountyDpw/

Public Works works for the Public

ICDPW

July 24, 2019

Mr. Jim Minnick, Director
Planning & Development Services Department
801 Main Street
El Centro, CA 92243

RECEIVED
JUL 24 2019
IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

Attention: Mariela Moran, Planner I

SUBJECT: **CUP 19-0007 Spreadco, Inc. (ref to IS 19-0009)**
Located on 1450 E Shank Road, Brawley, CA
APN 038-170-017-000

Dear Mr. Minnick:

This letter is in response to your submittal received by this department on May 7, 2019 for the above mentioned project. The applicant proposes to expand 12.82 acres the existing composting facilities under Conditional Use Permit 12-0018 and increase the composting operations and additional 30,000 tons annually.

Department staff has reviewed the package information and the following comments shall be Conditions of Approval:

1. Any activity and/or work within Imperial County right-of-way shall be completed under a permit issued by this Department (encroachment permit) as per Chapter 12.12 - Excavations on or Near a Public Road of the Imperial County Ordinance.

   Any activity and/or work may include, but not be limited to, the installation of temporary stabilized construction entrances, primary access commercial driveway, secondary emergency class 2 aggregate base access driveway, temporary traffic control, etc.

2. Prior to the issuance of grading, building, and encroachment permits, corner record is required to be filed with the county surveyor for monuments:

   8771. (b) When monuments exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control, the monuments shall be located and referenced by or under the direction of a licensed land surveyor or licensed civil engineer legally authorized to practice land surveying, prior to the time when any streets, highways, other rights-of-way, or easements are improved, constructed, reconstructed, maintained, resurfaced, or relocated, and a corner record or record of survey of the references shall be filed with the county surveyor.

3. Prior to Certificate of Occupancy, a second corner record is required to be filed with the county surveyor for monuments:

8771. (c) A permanent monument shall be reset in the surface of the new construction or a witness monument or monuments set to perpetuate the location if any monument could be destroyed, damaged, covered, disturbed, or otherwise obliterated, and a corner record or record of survey shall be filed with the county surveyor prior to the recording of a certificate of completion for the project. Sufficient controlling monuments shall be retained or replaced in their original positions to enable property, right-of-way and easement lines, property corners, and subdivision and tract boundaries to be reestablished without devious surveys necessarily originating on monuments differing from those that currently control the area.

4. Prior to the issuance of grading and building permits, the Developer shall complete the installation of temporary stabilized construction entrance.

5. Prior to the issuance of grading, building, and encroachment permits, all off-site improvements within Imperial County right-of-way shall be financially secured by either a road improvement bond or letter of credit.

6. The Developer will be required to repair any damages caused to County roads by construction traffic during construction and maintain them in safe conditions.

7. Prior to issuance of final certificate of occupancy, the Developer shall be responsible for repairing any damage caused to County roads during construction as determined by the Imperial County Road Commissioner.

8. Hastain Road project site access shall be secondary emergency access only and be Class 2 Base aggregate material as recommended by a California licensed Geotechnical Engineer and approved by this Department.

9. Hastain Road from Shank Road to project secondary emergency site access shall be improved to have two (2) 12-foot travel lanes consisting non emissive structural aggregate material as recommended by a California licensed Geotechnical Engineer and approved by this Department. Such road improvements shall be completed prior to site construction activities to begin. Quantity and cost estimates for these improvements shall be submitted to this Department for review and approval. Improvements on this road shall be required to help mitigate dust generation and provide access for public health and safety.

10. Primary access from Shank Road shall be per County of Imperial Department of Public Works Engineering Design Guidelines Manual – Detail of Commercial Driveway to County Rural Road Connection – Dwg. No. 410B.

11. The Developer shall furnish a Drainage and Grading Plan/Study to provide for property grading and drainage control, which shall also include prevention of sedimentation of damage to off-site properties. The Study/Plan shall be submitted to the Department of Public Works for review and approval. The applicant shall implement the approved plan. Employment of the appropriate Best Management Practices (BMP's) shall be included. (Per Imperial County Code of Ordinances, Chapter 12.10.020 B).

12. The plans are at great variance from the property lines of record. Assessment data shows that the Southern Pacific Rail Road maintains a strip of land, which has not yet been abandoned. The County of Imperial will not approve construction of improvements on said strip of land until the Southern Pacific Rail Road has relinquished or abandoned their ownership right(s). If the applicant has knowledge of documents purporting to abandon said ownership right(s), they shall be forwarded them to the Department of Public Works at the earliest opportunity.

13. Data on the plans furnish evidence that a field survey has occurred and that points or lines have been established which are not shown on any subdivision map, official map, or record of survey. Per Section 8762(b)(4) of the Business and Professions Code, a record of survey is required to be filed when "the location, relocation, establishment, reestablishment, or retracement of one or more points or lines not shown on any subdivision map, official map, or record of survey....." Per Section 8762(c) of the Business and Professions Code, "The record of survey is required to be filed...within 90 days after the setting of boundary monuments during the performance of a field survey or within 90 days after completion of a field survey, whichever comes first." The date on the plans is 04.03.19. Please contact the Imperial County Surveyor and indicate intent to file a record of survey prior to August 1, 2019.

14. Truck trip project information provided indicates conservatively maximum of 32 trucks per day entering the composting facility to pick up or deliver material. This would have minimal impacts to County of Imperial roads level of service. Therefore, no road improvements are required at this time.

INFORMATIVE:

The following items are for informational purposes only. The applicant is responsible to determine if the enclosed items affect the subject project.

- All solid and hazardous waste shall be disposed of in approved solid waste disposal sites in accordance with existing County, State and Federal regulations (Per Imperial County Code of Ordinances, Chapter 8.72).

- All on-site traffic areas shall be hard surfaced to provide all weather access for emergency vehicles. Surfacing shall meet the Department of Public Works and Office of Emergency Services.

- The project may require a National Pollutant Discharge Elimination System (NPDES) permit and Notice of Intent (NOI) from the Regional Water Quality Control Board (RWQCB) prior to County approval of onsite grading plan (40 CFR 122.28).

- As this project proceeds through the planning and the approval process, additional comments and/or requirements may apply as more information is received.

- A Transportation Permit may be required from road agency(s) having jurisdiction over the haul route(s) for any hauls of heavy equipment and/or large vehicles which impose greater than legal loads on riding surfaces, including bridges. (Per Imperial County Code of Ordinances, Chapter 10.12 – Overweight Vehicles and Loads).

Should you have any questions, please do not hesitate to contact this office. Thank you for the opportunity to review and comment on this project.

Respectfully,

John A. Gay, PE
Director of Public Works

CY/cv

150 SOUTH NINTH STREET
EL CENTRO, CA 92243-2850

TELEPHONE: (442) 265-1800
FAX: (442) 265-1799

AIR POLLUTION CONTROL DISTRICT

July 15, 2019

Jim Minnick
Director
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243

SUBJECT: Conditional Use Permit 19-0007 for the Expansion of an Existing Composting Facility at 1450 E Shank Rd., Brawley CA 92227 (APN 038-170-017-000) by Spreadco, Inc. (Revised and Recirculated Air Quality Study 7/3/2019)

Dear Mr. Minnick:

The Imperial County Air Pollution Control District ("Air District") would like to thank you for the opportunity to review and comment on the Recirculated Revised Air Quality Study (July 2019) concerning Conditional Use Permit (CUP) 19-0007 regarding the proposal by SpreadCo, Inc. to expand its existing composting operations at the ButterSpur Cattle Feed Yard ("Project"), located at 1450 E. Shank Road, Brawley, California (APN 038-170-017-000). The proposed expansion of 12.82 acres includes an additional 30,000 wet tons of finished compost. The beak down includes 15,000 additional wet tons of Bovine and 15,000 additional wet tons of Chicken material, some of which will be brought into the facility via truck from outside sources.

Upon review, the Air District has no comment at this time, but politely requests a copy of the Draft CUP prior to recording.

As a reminder, the Air District's Rules & Regulations can be found on its website (www.co.imperial.ca.us/AirPollution) under the "Resources." Please feel free to contact the Air District should you have any questions at (442) 265-1800.

Respectfully,

Curtis Blondell
APC Environmental Coordinator

Reviewed by Monica Soucier
APC Division Manager

150 SOUTH NINTH STREET
EL CENTRO, CA 92243-2850

TELEPHONE: (442) 265-1800
FAX: (442) 265-1799

AIR POLLUTION CONTROL DISTRICT

May 21, 2019

Jim Minnick
Director
Imperial County Planning & Development Services
801 Main Street
El Centro, CA 92243

SUBJECT: Conditional Use Permit 19-0007 for the Expansion of an Existing Composting Facility at 1450 E Shank Rd., Brawley CA 92227 (APN 038-170-017-000) by Spreadco, Inc.

Dear Mr. Minnick:

The Imperial County Air Pollution Control District ("Air District") would like to thank you for the opportunity to review and comment on Conditional Use Permit (CUP) 19-0007 regarding the proposal by SpreadCo, Inc. to expand its existing composting operations at the ButterSpur Cattle Feed Yard, located at 1450 E. Shank Road, Brawley, California (APN 038-170-017-000). The proposed expansion of 12.82 acres includes an additional 30,000 wet tons of finished compost. The beak down includes 15,000 additional wet tons of Bovine and 15,000 additional wet tons of Chicken material, some of which will be brought into the facility via truck from outside sources.

Comment on Air Quality Study

Pages 34-35 – Summary of Facility Emissions and Cumulative Evaluation

While the Air District has no objection to the use of the South Coast Air Quality Management District's emissions factors (Rule 1133) for the project emissions analysis within the Air Quality Study, there is some concern over the cumulative analysis, specifically Table 12 (Total Criteria Emissions). The Air District similarly understands, that the Imperial County California Environmental Air Quality Handbook (Handbook), specifically exempts the use of the thresholds of significance, specifically Table 1, when determining significance of air emissions from the stationary source subject to Rule 207.[1] However, this does not preclude a sufficient analysis per California Environmental Quality Act (CEQA) using thresholds from the existing Rule 207. Here, the Air Quality Study chose to use the significance thresholds found in the Handbook.

[1] *CEQA Air Quality Handbook*, Page 10, Final Amendment December 12, 2017

Table 12 of page 35 of the Air Quality Study, clearly identifies Reactive Organic Compounds (ROG) as exceeding the threshold of 137 lbs/day, yet the result shows "N" for significance. This will need additional information explaining why the significance level is "N". Clearly fugitive emissions are much more difficult to control, especially when emissions have no real visibility rate that can be quantified. However, in the most recent Supreme Court ruling in the "Sierra Club vs Fresno County, December 24, 2018" the court affirmed an air quality mitigation that included a "substitution clause" that allowed for future application of new technology and/or other feasible measures as they become available.[2] This maybe an avenue by which the applicant can explain the "N" for the level of significance. In any event, there needs to be further clarification. This concern was relayed to Imperial County Planning Department Staff via Email May 15, 2019.

Regarding the proposed construction on the site, the applicant must adhere at all times to the Air District's Regulation VIII Rules which are designed to mitigate fugitive dust (PM10) emissions. In addition, the expansion will trigger a modification to the applicants existing Permit #4335 requiring the submittal of an application for a modification to the Permitting Division. Finally, the Air District politely requests a copy of the Draft CUP prior to recording.

As a reminder, the Air District's Rules & Regulations can be found on its website (www.co.imperial.ca.us/AirPollution) under the "Planning" tab. Please feel free to contact the Air District should you have any questions at (442) 265-1800.

Respectfully,

Curtis Blondell

Curtis Blondell
APC Environmental Coordinator

Reviewed by Monica Soucier
APC Division Manager

[2] *Sierra Club et al., v County of Fresno et al.*, Cal. Supreme Court Case No. S219783 (Dec. 24, 2018)

TORRES MARTINEZ DESERT CAHUILLA INDIANS
P.O. Box 1160
Thermal, CA 92274
(760) 397-0300 – FAX (760) 397-8146

June 6, 2019

Attn: Mariela Moran

Re: Expansion of Existing Composting Facility – 1450 East Shank Rd, Brawley Ca.

Torres Martinez Desert Cahuilla Indians appreciates your concern for cultural resource preservation in your project. We have reviewed the information and found, that although the project is located outside the existing reservation, the location does fall within our Tribal Traditional Use Area. Therefore the concern for inadvertent discoveries is high for the Torres Martinez Desert Cahuilla Indians. As a result, we are requesting the following:

Torres Martinez Desert Cahuilla Indians is requesting the following:

- Copies of all Cultural reports
- Formal Government to Government Consultation.
- Tribal Monitoring for all initial ground disturbing activities by a designated tribal monitor from the Torres Martinez Desert Cahuilla Indians. The monitor shall be present during any ground disturbing proceedings including surveys and archaeological testing.

Please feel free contact me at your earliest convenience either by email or phone in order to make arrangements.

Respectfully,

Michael Mirelez
Cultural Resource Coordinator
Torres-Martinez Desert Cahuilla Indians
Office: 760-397-0300 Ext: 1213
Cell: 760-399-0022
Email: mmirelez@tmdci.org

Imperial County Planning & Development Services
Planning / Building

May 06, 2019

Jim Minnick
DIRECTOR

CERTIFIED MAIL NO. 7016 2140 0000 2121 6702

Michael Mirelez
Culture Resource Coordinator
Torres Martinez Desert Cahuilla Indian
P.O. Box 1160
Thermal, CA 92274

Subject: Tribal Culture Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Determination that a Project Application is Complete or Decision to undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code Section 21080.3.1(d).

Dear Mr. Mirelez:

The Imperial County Planning & Development Services Department has determined that project application is complete for the Conditional Use Permit (CUP) #19-0007. Applicant is proposing to expand 12.82 acres the existing composting facilities under Conditional Use Permit #12-0018 and increase the composting operations an additional 30,000 tons annually (please see attached maps).

The location of this proposed Conditional Use Permit is at 1450 E Shank Rd, Brawley CA 92227. The property is legally described as "*A portion of Tracts 70-A, Township 13 South, Range 15 East, SBB&M*". Attached for your use please find a copy of Imperial County Assessor Plat Map (Book 38, Page 17). The proposed parcel is highlighted. Also attached is an Aerial Photo of the subject area.

Pursuant to Public Resources Code, Section 21080.3.1(b), you have thirty (30) days from the receipt of this letter to request consultation, in writing, with the Imperial County Planning & Development Services Department. Your response is expected by June 5, 2019.

The contact person for this project is Mariela Moran, Planner I. She can be reached at 442-265-1736, extension 1747 or via-email at marielamoran@co.imperial.ca.us and marielamoranicpds@gmail.com (temporary email).

Very Respectfully,

Jim Minnick, Director
Planning & Development Services

By:
Mariela Moran
Planner I

ATTACHMENTS: Copy of Assessor Plat
Aerial Photo of Subject Site
Conditional Use Permit Site Plan

CC:
Jim Minnick, ICPDS Director
Michael Abraham, AICP, Assistant ICPDS Director
Joe Hernandez, Planner IV (email)

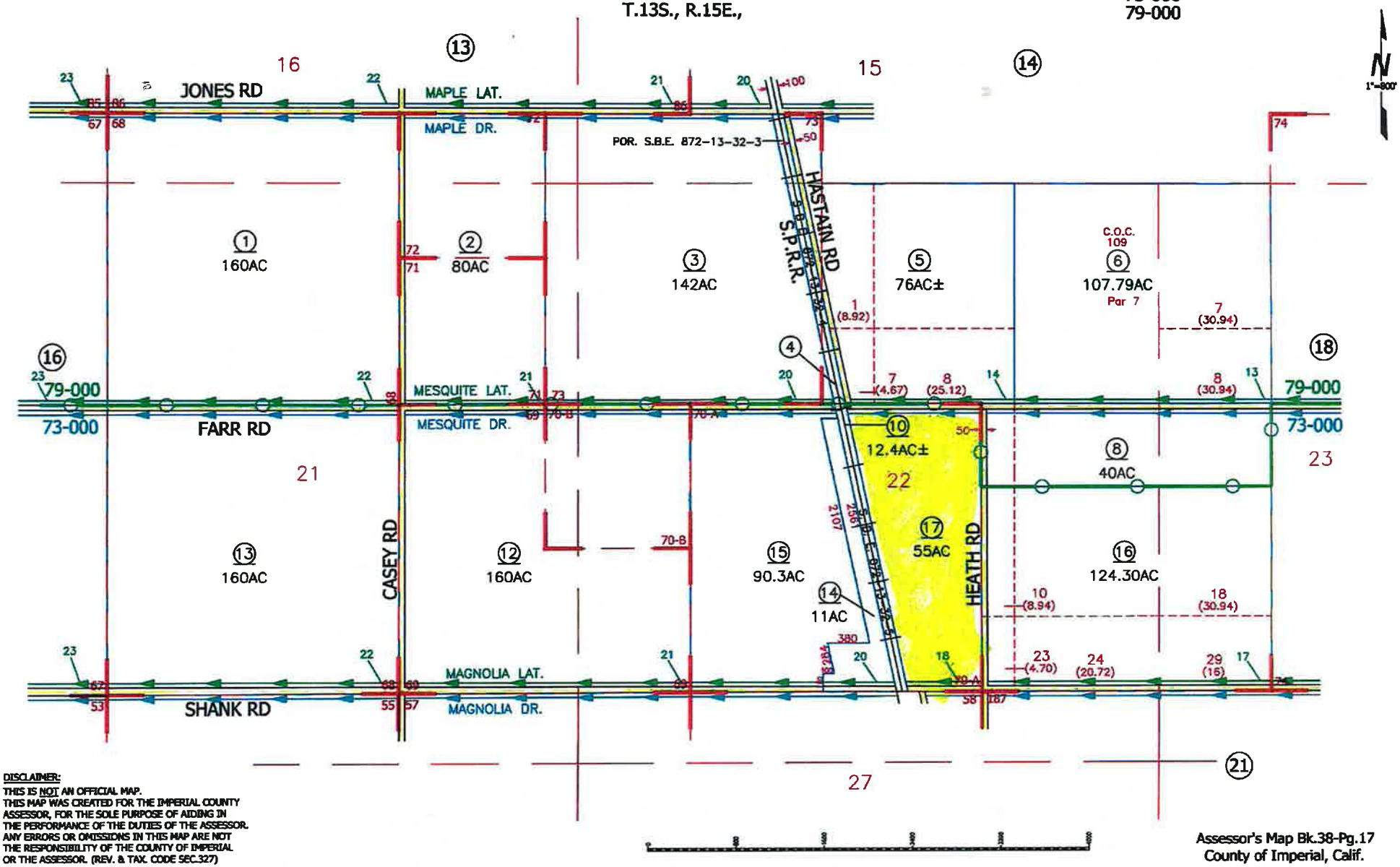
File: CUP19-0007; 10.112

MM\MH\S:\APN\038\170\017\CUP19-0007\AB-52\CUP19-0007 AB 52 Letter Torres Martinez.docx

TRACT 68, 69, 70A, 70B, 71, 72, 73, SEC. 15, 16, 21, 22 & POR. SEC. 22, 23,
T.13S., R.15E.,

Tax Area Code
73-000
79-000

38-17



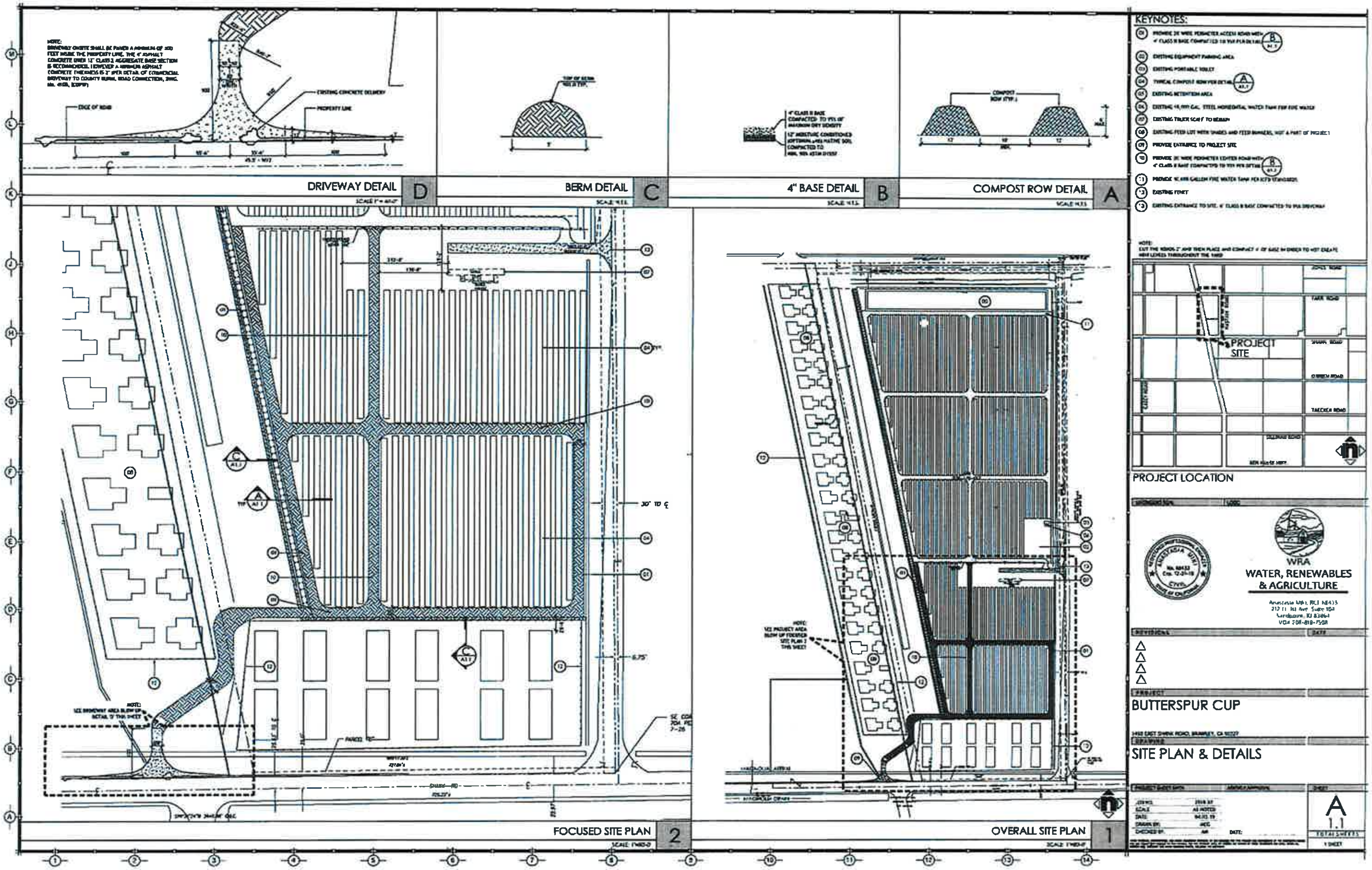
DISCLAIMER:
THIS IS NOT AN OFFICIAL MAP.
THIS MAP WAS CREATED FOR THE IMPERIAL COUNTY ASSESSOR, FOR THE SOLE PURPOSE OF AIDING IN THE PERFORMANCE OF THE DUTIES OF THE ASSESSOR. ANY ERRORS OR OMISSIONS IN THIS MAP ARE NOT THE RESPONSIBILITY OF THE COUNTY OF IMPERIAL OR THE ASSESSOR. (REV. & TAX. CODE SEC.327)

Assessor's Map Bk.38-Pg.17
County of Imperial, Calif.

APN 038-170-017-000

1" = 752 ft	Sub Title	05/03/2019		

This map may represents a visual display of related geographic information. Data provided here on is not guarantee of acutual field conditions. To be sure of complete accuracy, please contact the responsible staff for most up to date information.


KEYNOTES:
EXISTING EQUIPMENT PARKING AREA
EXISTING PORTABLE TOILET
TYPICAL COMPOST ROW PER DETAIL
EXISTING RETENTION AREA
EXISTING TRUCK SCALE TO REMAIN
PROVIDE ENTRANCE TO PROJECT SITE
EXISTING FENCE
DRIVEWAY DETAIL
D
BERM DETAIL
C
4" BASE DETAIL
B
COMPOST ROW DETAIL
A
FOCUSED SITE PLAN
2
OVERALL SITE PLAN
1
PROJECT SITE
PROJECT LOCATION
WRA
WATER, RENEWABLES
& AGRICULTURE
BUTTERSPUR CUP
SITE PLAN & DETAILS
A
1.1

Imperial County Planning & Development Services
Planning / Building / Parks & Recreation

RECEIVED

MAY 16 2019

IMPERIAL COUNTY
PLANNING & DEVELOPMENT SERVICES

Jim Minnick
DIRECTOR

May 3, 2019

REQUEST FOR REVIEW AND COMMENTS

The attached project and materials are being sent to you for your review and as an early notification that the following project is being requested and being processed by the County's Planning & Development Services Department. Please review the proposed project based on your agency/department area of interest, expertise, and/or jurisdiction.

To:

County Agencies
- ☐ County Executive Office- Tony Rouhotas
- ☒ County Executive Office – Esperanza-Colio-Warren
- ☒ Ag. Commissioner – Carlos Ortiz
- ☒ Public Works – John Gay/Carlos Yee
- ☒ APCD – Matt Dessert/Monica Soucier/Belen Leon
- ☒ Ag. Commissioner – Paul Deal/Sandra Mendivil
- ☒ IC Fire/OES Office – Robert Malek/Andrew Loper
- ☒ IC Sheriff's Office – Thomas Garcia
- ☒ EHS Office – Jeff Lamoure/Vanessa R. Martinez
- ☒ EHS Office – Alphonso Andrade/Jorge Perez

State Agencies/Other
- ☐ Caltrans District 11- Melina Pereira
- ☐ Air Resource Board – James Goldstene
- ☒ Torres-Martinez Desert Cahuilla Indians- Thomas Tortez
- ☒ Native American Heritage Commission. – Katy Sanchez
- ☒ Fort-Yuma – Quechan Indian Tribe- H. Jill McCormick
- ☒ Fort-Yuma – Quechan Indian Tribe – Jordan D. Joaquin, President
- ☒ CUPA – Robert Krug
- ☒ Torres-Martinez Indian Tribe – Joseph Mirelez
- ☐ CHP (Imperial Office) Arturo Proctor

Cities/Other
- ☐ City of El Centro – Norma Villicana
- ☐ City of Calexico – Mark Vasquez
- ☐ City of Imperial – George Galvan
- ☒ City of Brawley – Rosanna Byron-Moore
- ☒ City of Brawley – Gordon Gaste
- ☐ City of Holtville - ____
- ☒ IID Energy Dept. – Donald Vargas
- ☒ IID Energy Dept. Rudy Leal
- ☐ El Centro NAF – Richard Thomson

From: Mariela Moran, Planner I - (442) 265-1736 extension 1747 or via-email at CommentLetters@co.imperial.ca.us and/or imperialcountyplanning@gmail.com (Temp Email).

Project ID: Conditional Use Permit #19-0007

Project Location: The project is located at 1450 E Shank Rd, Brawley CA 92227; APN 038-170-017-000

Project Description: Applicant is proposing to expand 12.82 acres the existing composting facilities under Conditional Use Permit #12-0018 and increase the composting operations an additional 30,000 tons annually.

Applicant: Spreadco, Inc., P.O. Box1400, Brawley, CA 92227

Comments due by: May 17, 2019

PC/PDA Meeting: TBD

COMMENTS: *(attach a separate sheet if necessary)* (If no comments, please state below and mail, fax, or e-mail this sheet to Case Planner)

NO Comment

Name: Sandra Mendivil Signature: Sandra Mendivil Title: Special Projects Coordinator

Date: 5/10/19 Telephone No.: 442-265-1500 E-mail: sandramendivil@co.imperial.ca.us