

## **APPENDIX A**

# **NOTICE OF PREPARATION AND PUBLIC COMMENTS ON THE NOP**

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**NOTICE OF PREPARATION  
OF A DRAFT ENVIRONMENTAL IMPACT REPORT  
FOR THE S. STAMOULES, INC. PISTACHIO PROCESSING FACILITY PROJECT**

**Date:** July 6, 2022

**To:** Office of Planning and Research, Responsible and Trustee Agencies, Other Public Agencies and Other Interested Parties

**Subject:** Notice of Preparation of Draft Environmental Impact Report for the S. Stamoules, Inc. Pistachio Processing Facility

**Lead Agency:** Fresno County

**Contact:** Ejaz Ahmad, Planner  
Department of Public Works and Planning  
Development Services Division  
2220 Tulare Street, 6th floor  
Fresno, CA 93721  
(559) 600-4204  
EAhmad@FresnoCountyCA.gov

**Comment Period:** July 8, 2022, to August 9, 2022

**PURPOSE OF NOTICE**

Fresno County (County) is the lead agency responsible for preparation of an Environmental Impact Report (EIR) for the S. Stamoules, Inc. Pistachio Processing Facility Project (proposed project). Pursuant to provisions of the California Environmental Quality Act (CEQA), the County has prepared this Notice of Preparation (NOP) for the proposed project. Once a decision is made to prepare an EIR, the lead agency must prepare a NOP to inform all responsible and trustee agencies that an EIR will be prepared (CEQA Guidelines Section 15082). The purpose of this NOP is to provide agencies, interested parties, and organizations with sufficient information describing the proposed project and the potential environmental effects to enable meaningful input related to the scope and content of information to be included in the EIR.

**PUBLIC REVIEW PERIOD**

This NOP is being circulated for public review and comment for a period of 30 days beginning July 8, 2022. The County requests that any potential Responsible or Trustee Agencies responding to this NOP reply in a manner consistent with Section 15082(b) of the CEQA Guidelines, which allows for submittal of any comments in response to this notice no later than 30 days after receipt of the NOP. Comments in response to this NOP will be accepted through 5:00 p.m., August 9, 2022. Please send your written comments to Mr. Ahmad and include your name, address, and phone number and/or email address so that we may contact you for clarification, if necessary.

## PUBLIC SCOPING MEETING

The County will hold a public scoping meeting to inform interested parties about the proposed project and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR. The meeting time and location is as follows:

Date: Monday, July 25, 2022

Time: 4 p.m. to 4:30 p.m.

Link: <http://bit.ly/stamoulesscopemeeting> Meeting ID: 220 639 430 437; Passcode: dGW56V, or

Call-in (audio only): 1 559-494-4226; Conference ID: 756 743 547#

## PROJECT DESCRIPTION

S. Stamoules Inc. (Project Applicant) proposes to build a pistachio hulling, processing, and packing facility on a 98-acre portion of a 316.2-acre parcel located in western Fresno County, 8 miles southwest of the City of Mendota. Trucks carrying pistachios from the Project Applicant's orchards would deposit their load on a conveyor belt system that would transport the pistachios through different sections of the proposed facility that include a huller building, a gas-powered dryer area, a drive-over dump pit area, and an area with storage silos which are proposed to be 50 feet in height. Additionally, the processed water from the facility will be conveyed via existing subsurface piping to irrigate approximately 3,740 acres of agricultural land owned by the owner and are located approximately two to six miles to the northeast of the project site located on the northwest corner of S. Newcomb Avenue and W. Muscat Avenue approximately 9.7 mile south of the City of Firebaugh.

The proposed project would be implemented in four phases, and each phase would include the construction and addition of buildings, working areas and equipment to increase the capacity of the project site. Attached to this notice are four figures showing the project location, proposed site plan, partial Site Plan and Process Water Land Application Area.

Phase I of the project would include the construction of a 16,893 square-foot huller building, an approximately 5,608 square-foot drive-over dumping pit area, and an approximately 3,900 square-foot pre-cleaning area. Ten 8 by 29 foot dryers and 18 52- by 52-foot galvanized steel silos, each of 2,200,000-pound capacity, would be added to the project site west of the proposed huller building under Phase I of the proposed project.

Phase II of the project would include the construction of a 155,169-square-foot processing building for pistachios.

Phase III of the project would include the installation of processing, sorting, and packing equipment in the pistachio processing building, as well as the construction of twelve additional silos and the installation of ten additional dryer units.

Finally, Phase IV of the project would include the construction of a second 16,893-square-foot huller building, an additional drive-over dumping pit area and pre-cleaning area, and the construction and installation of 30 additional silos and 20 dryer units.

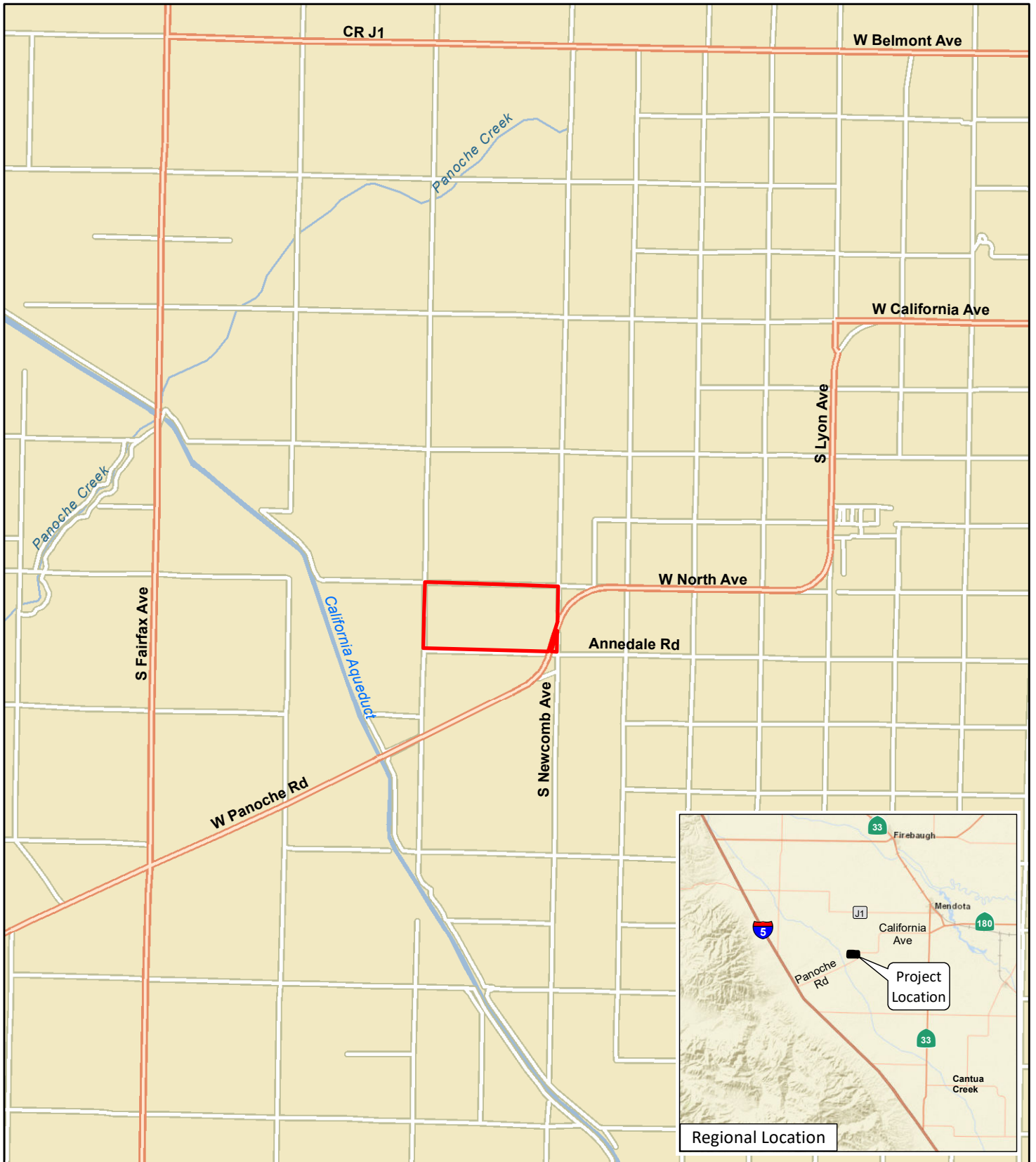


## POTENTIAL ENVIRONMENTAL EFFECTS

The S. Stamoules, Inc. Pistachio Processing Facility EIR will evaluate the potential environmental impacts of the proposed project, after having first established the environmental setting, or baseline, for the environmental analysis. The significance of potential impacts, cumulative impacts, and appropriate mitigation measures associated with implementation of the project will be thoroughly discussed in the EIR.

The following environmental resource topic areas will be evaluated in the EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

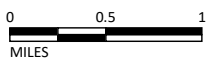


**LSA**

LEGEND

Project Site

FIGURE 1



SOURCE: Esri World Street Map.

\\AzCorp04\PTR\Images\OPA2101\GIS\Maps\Project Description\Figure 1\_Regional and Local Location.mxd (4/18/2022)

*S. Stamoules, Inc. Pistachio Processing Facility Project*  
*Fresno County, California*  
**Notice of Preparation**  
**Regional and Local Location**

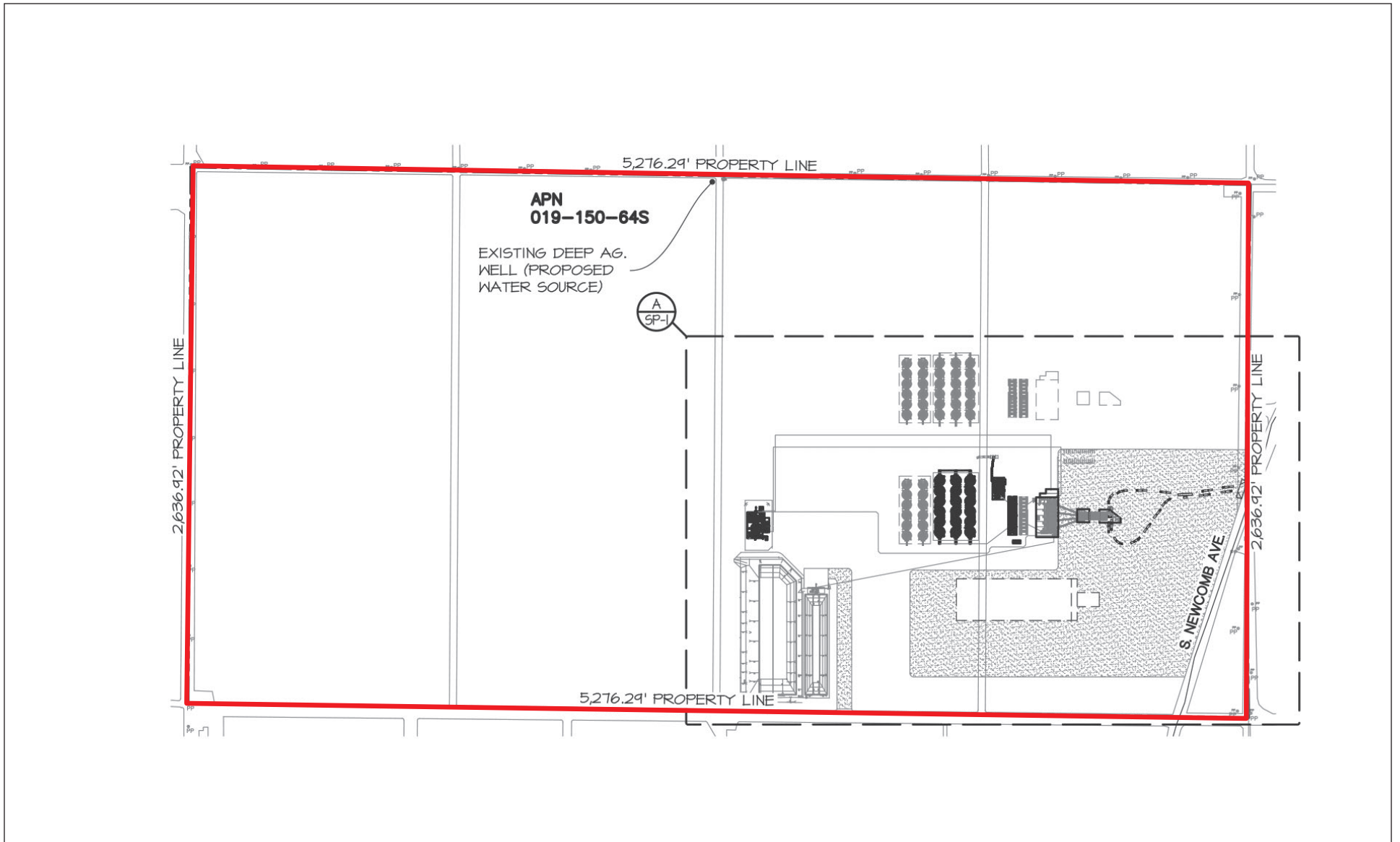


FIGURE 2

LSA

 Project Site Boundary



NOT TO SCALE

*S. Stamoules, Inc. Pistachio Processing Facility Project*  
*Fresno County, California*  
**Notice of Preparation**  
**Project Site Plan**

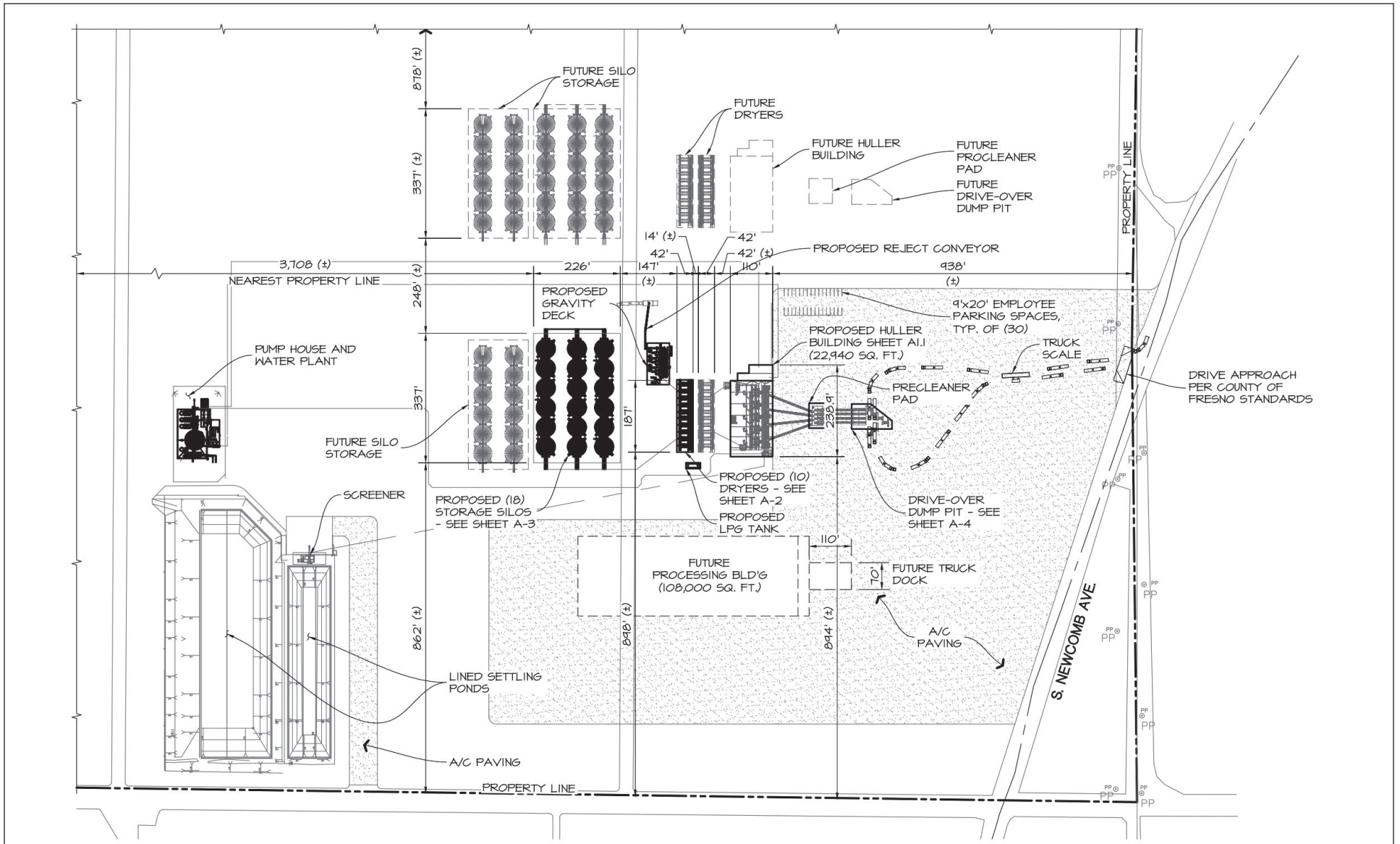


FIGURE 3

LSA



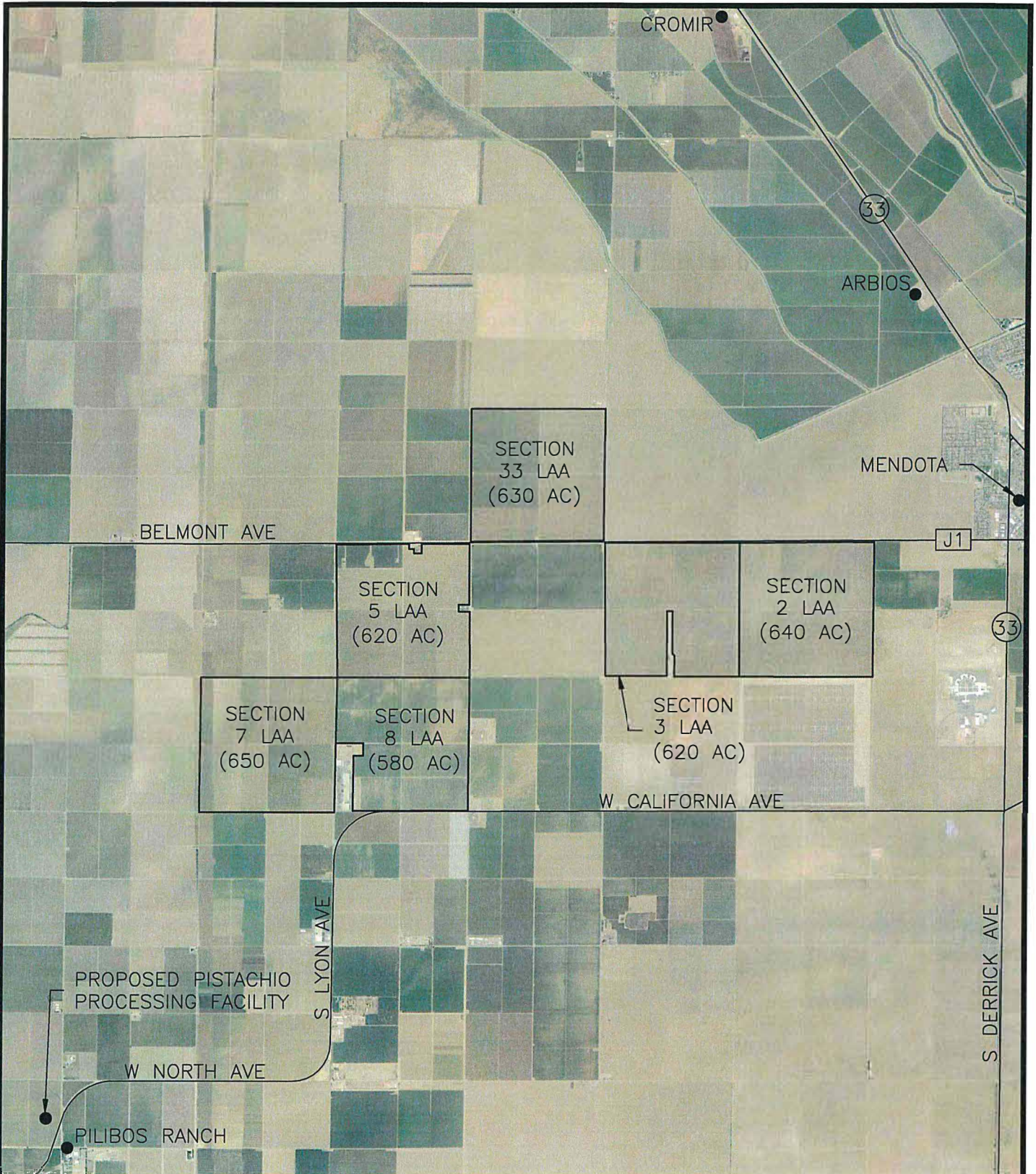
NOT TO SCALE

SOURCE: Engel & Company, 2020

FREProjects:\CFF2201 OPA Pistachio\PRODUCTS\Project Description\Figures\Figure 3.ai (4/19/2022)

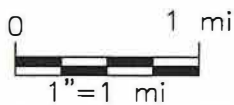
S. Stamoules, Inc. Pistachio Processing Facility Project  
 Fresno County, California  
 Notice of Preparation  
 Partial Site Plan





**EXPLANATION:**

LAA - LAND APPLICATION AREA  
 AC - ACRES



(SCALE AND LOCATIONS APPROXIMATE)

(SOURCE: Google Earth Pro Image September 2020, ©2021 Google™)

Figure 1. Site Location Map

PROJECT NUMBER: 2021210059	S. Stamoules Pistachio Processing Facility Conditional Use Permit Application: Projected Land Application Area
DATE: 5 '24 '2021	
DWG NO: 2020210059 F1.DWG	South Valley Engineers S. Newcomb Ave. APN 019-150-64S Mendota, California 93640
DWG BY: PROJECT MANAGER 6NSG 10MSS	
REVISED:	

**VALLEY** SCIENCE AND ENGI



## NATIVE AMERICAN HERITAGE COMMISSION

July 8, 2022

Ejaz Ahmad  
County of Fresno  
2220 Tulare Street, Sixth Floor  
Fresno, CA 93721

**Re: 2022070101, S. Stamoules, Inc. Pistachio Processing Facility Project, Fresno County**

Dear Ejaz Ahmad:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit. 14, § 15064.5 (b) (CEQA Guidelines § 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

CHAIRPERSON  
**Laura Miranda**  
Luiseño

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

PARLIAMENTARIAN  
**Russell Atebery**  
Karuk

SECRETARY  
**Sara Dutschke**  
Miwok

COMMISSIONER  
**William Mungay**  
Paiute/White Mountain  
Apache

COMMISSIONER  
**Isaac Bojorquez**  
Ohlone-Costanoan

COMMISSIONER  
**Buffy McQuillen**  
Yokayo Pomo, Yuki,  
Nomlaki

COMMISSIONER  
**Wayne Nelson**  
Luiseño

COMMISSIONER  
**Stanley Rodriguez**  
Kumeyaay

EXECUTIVE SECRETARY  
**Raymond C. Hitchcock**  
Miwok/Nisenan

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
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AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

- 1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:** Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

  - a. A brief description of the project.
  - b. The lead agency contact information.
  - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
  - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
  
- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

  - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
  
- 3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

  - a. Alternatives to the project.
  - b. Recommended mitigation measures.
  - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
  
- 4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:

  - a. Type of environmental review necessary.
  - b. Significance of the tribal cultural resources.
  - c. Significance of the project's impacts on tribal cultural resources.
  - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
  
- 5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
  
- 6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

  - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
  - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
  - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
    - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
    - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
  - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - i.** Protecting the cultural character and integrity of the resource.
    - ii.** Protecting the traditional use of the resource.
    - iii.** Protecting the confidentiality of the resource.
  - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
  - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
  - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
  - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
  - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
  - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf)



## SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf).

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
  - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

### NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([https://ohp.parks.ca.gov/?page\\_id=30331](https://ohp.parks.ca.gov/?page_id=30331)) for an archaeological records search. The records search will determine:
  - a. If part or all of the APE has been previously surveyed for cultural resources.
  - b. If any known cultural resources have already been recorded on or adjacent to the APE.
  - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
  - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
  - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
  
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
  - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
  - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
  - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:  
[Cameron.Vela@nahc.ca.gov](mailto:Cameron.Vela@nahc.ca.gov).

Sincerely,

*Cameron Vela*

Cameron Vela  
Cultural Resources Analyst

cc: State Clearinghouse

**From:** [Sarah Pilibos](#)  
**To:** [Ahmad, Ejaz](#)  
**Cc:** [Randall, David A.](#); [Duane Urbanek](#); [Catherine Pilibos](#)  
**Subject:** RE: Stamoules Pistachio Processing Plant - EIR response  
**Date:** Thursday, August 11, 2022 10:33:46 AM  
**Attachments:** [image001.png](#)

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I appreciate that very much. What is the next step with this process? Who should I follow up with to see how our concerns will be handled?

Thank you.

Sarah

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**From:** Ahmad, Ejaz <EAhmad@fresnocountyca.gov>  
**Sent:** Thursday, August 11, 2022 10:06 AM  
**To:** Sarah Pilibos <sarah@pilibosproperties.com>  
**Cc:** Randall, David A. <drandall@fresnocountyca.gov>  
**Subject:** Stamoules Pistachio Processing Plant - EIR response

Dear Ms. Sarah,

Thanks for your email. Your concerns has been noted.

Regards!.



**Ejaz Ahmad** | Planner

**Department of Public Works and Planning | Development Services and Capital Projects Division/Current Planning Section**

2220 Tulare St. 6th Floor Fresno, CA 93721

Main Office: (559) 600-4497 Direct: (559) 600-4204

[Your input matters! Customer Service Survey](#)

---

**From:** Sarah Pilibos <[sarah@pilibosproperties.com](mailto:sarah@pilibosproperties.com)>  
**Sent:** Tuesday, August 9, 2022 2:25 PM  
**To:** Ahmad, Ejaz <[EAhmad@fresnocountyca.gov](mailto:EAhmad@fresnocountyca.gov)>  
**Cc:** Duane Urbanek <[duane@pilibosranch.com](mailto:duane@pilibosranch.com)>; Catherine Pilibos <[cat@pilibosproperties.com](mailto:cat@pilibosproperties.com)>  
**Subject:** Stamoules Pistachio Processing Plant - EIR response

**CAUTION!!! - EXTERNAL EMAIL - THINK BEFORE YOU CLICK**

Dear Mr. Ahmad:

Per the July 25, 2022 public hearing regarding the above development, please accept this response on behalf of the Pilibos family ranching operation & owners. We wish to express our serious concerns as to how the land use, as proposed will directly impact our land use, and access needed regarding our access to public road, our farming operation transportation, as well as our air and water quality.

One immediate observation we have is that the facility's entrance (as presently designed) chokes access to our ranch entrance on S. Newcombe. That strangles access to our field roads southeast & southwest. A second observation of immediate concern is that this access junction (as presently designed) abuts a

permanent orchard of pomegranates (see Figure 3 highlighted areas attached). We do not wish to lose this field or any portion of it to either eminent domain or easement to accommodate an enlarged county road. We assert that any road enlargements be redirected and reposition from Stamoules land onto public access that is significantly more distant than our land.

These are our initial concerns. We will follow up with a more detailed, professional study as the process continues. Kindly direct us to the appropriate personnel with whom we can continue this discussion.

In closing, we hope there is flexibility in the designed plans as we are responding early to the development. We appreciate the financial impact of such an endeavor is to the county, but we also presume it will not be permitted to interrupt or abuse our land or current operation.

Thank you in advance for your attention to this matter.

**Sincerely.**

**Sarah Pilibos**

**President**

**Stephen Investments/Pilibos Bros**

**Pilibos Sister, Inc. & the Y. Stephen & Lucille Pilibos Trust**

**2141 Tuolumne Street, Suite "A"**

**Fresno, CA 93721**

**Office: (559) 268-0101**

**Facsimile: (559) 268-7246**

**Email: [Sarah@pilibosproperties.com](mailto:Sarah@pilibosproperties.com)**

CONFIDENTIAL

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August 11, 2022

Ejaz Ahmad  
County of Fresno  
Department of Public Works and Planning  
2220 Tulare Street, 6<sup>th</sup> floor  
Fresno, CA 93721

**Project: Notice of Preparation of a Draft Environmental Impact Report – S.  
Stamoules, Inc. Pistachio Processing Facility Project**

**District CEQA Reference No: 20221001**

Dear Mr. Ahmad:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Notice of Preparation from the County of Fresno (County) for the above mentioned project. Per the Notice of Preparation for the Draft Environmental Impact Report (DEIR), the project consists of the construction and operation of a pistachio hulling, processing and packing facility to be constructed in the following four phases (Project):

- Phase 1: construction of a 16,893 square foot huller building, approximately 5,608 square foot drive-over dumping pit area, approximately 3,900 square foot pre-cleaning area, ten 8x29 foot dryers, and eighteen 52x52 foot galvanized steel silos.
- Phase 2: construction of a 155,169 square foot processing building for pistachios.
- Phase 3: installation of a processing, sorting, and packing equipment in the pistachio processing building. Including twelve additional silos and the installation of ten additional dryer units.
- Phase 4: construction of a second 16,893 square foot huller building, and additional drive-over dumping pit area and pre-cleaning area, and the construction and installation of 30 additional silos and 20 dryer units.

**Samir Sheikh**  
Executive Director/Air Pollution Control Officer

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**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

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

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

The District offers the following comments regarding the Project:

## **1) Project Related Emissions**

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM<sub>2.5</sub>) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM<sub>10</sub>, PM<sub>2.5</sub> standards.

The District's initial review of the Project concludes that emissions resulting from construction and/or operation of the Project may exceed any of the following significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: <https://www.valleyair.org/transportation/GAMAQI.pdf>. The District recommends that a more detailed preliminary review of the Project be conducted for the Project's construction and operational emissions.

### **1a) Construction Emissions**

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment, including the latest tier equipment.

### **1b) Operational Emissions**

Operational (ongoing) air emissions from mobile sources and stationary sources should be analyzed separately. For reference, the District's significance thresholds are identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: <https://www.valleyair.org/transportation/GAMAQI.pdf>.

*Recommended Mitigation Measure:* At a minimum, project related impacts on air quality should be reduced to levels of significance through incorporation of design elements such as the use of cleaner Heavy Heavy-Duty (HHD) trucks and vehicles, measures that reduce Vehicle Miles Traveled (VMTs), and measures that increase energy efficiency. More information on transportation mitigation measures can be found at:

<http://www.valleyair.org/transportation/Mitigation-Measures.pdf>.

### **1c) Recommended Model for Quantifying Air Emissions**

Project-related criteria pollutant emissions from construction and operational sources should be identified and quantified. Emissions analysis should be performed using the California Emission Estimator Model (CalEEMod), which

uses the most recent CARB-approved version of relevant emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: [www.caleemod.com](http://www.caleemod.com).

## **2) Health Risk Screening/Assessment**

The County should evaluate the risk associated with the Project for sensitive receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) in the area and mitigate any potentially significant risk to help limit exposure of sensitive receptors to emissions.

To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

### Prioritization (Screening Health Risk Assessment):

A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

To assist land use agencies and project proponents with Prioritization analyses, the District has created a prioritization calculator based on the aforementioned CAPCOA guidelines, which can be found here:

[http://www.valleyair.org/busind/pto/emission\\_factors/Criteria/Toxics/Utilities/PRIORITIZATION-CALCULATOR.xls](http://www.valleyair.org/busind/pto/emission_factors/Criteria/Toxics/Utilities/PRIORITIZATION-CALCULATOR.xls)

### Health Risk Assessment:

Prior to performing an HRA, it is strongly recommended that land use agencies/project proponents develop and submit for District review a health risk modeling

protocol that outlines the sources and methodologies that will be used to perform the HRA. This step will ensure all components are addressed when performing the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the project-related health impacts would exceed the District's significance threshold of 20 in a million for carcinogenic risk, or 1.0 for either the Acute or Chronic Hazard Indices.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: [hramodeler@valleyair.org](mailto:hramodeler@valleyair.org)
- Calling (559) 230-5900

*Recommended Measure:* Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at <https://ww3.arb.ca.gov/ch/handbook.pdf>.

### **3) Ambient Air Quality Analysis**

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and



modeling guidance, is available online at the District's website:  
[www.valleyair.org/ceqa](http://www.valleyair.org/ceqa).

#### **4) Voluntary Emission Reduction Agreement**

Criteria pollutant emissions may result in emissions exceeding the District's significance thresholds, potentially resulting in a significant impact on air quality. When a project is expected to have a significant impact, the District recommends the DEIR also include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for this Project.

A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds for the District's incentives programs. The funds are disbursed by the District in the form of grants for projects that achieve emission reductions. Thus, project-related impacts on air quality can be mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of old farm tractors.

In implementing a VERA, the District verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. After the project is mitigated, the District certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project-related emissions have been mitigated. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the environmental document includes an assessment of the feasibility of implementing a VERA.

#### **5) Industrial/Warehouse Emission Reduction Strategies**

The District recommends the County consider the feasibility of incorporating emission reduction strategies that can reduce potential harmful health impacts, such as those listed below:

- Ensure solid screen buffering trees, solid decorative walls, and/or other natural ground landscaping techniques are implemented along the property line of adjacent sensitive receptors
- Ensure all landscaping be drought tolerant

- Orient loading docks away from sensitive receptors unless physically impossible
- Locate loading docks a minimum of 300 feet away from the property line of sensitive receptor unless dock is exclusively used for electric trucks
- Incorporate signage and “pavement markings” to clearly identify on-site circulation patterns to minimize unnecessary on-site vehicle travel
- Locate truck entries on streets of a higher commercial classification
- Ensure all building roofs are solar-ready
- Ensure all portions of roof tops that are not covered with solar panels are constructed to have light colored roofing material with a solar reflective index of greater than 78
- Ensure rooftop solar panels are installed and operated to supply 100% of the power needed to operate all non-refrigerated portions of the development project
- Ensure power sources at loading docks for all refrigerated trucks have “plugin” capacity, which will eliminate prolonged idling while loading and unloading goods
- Incorporate bicycle racks and electric bike plug-ins
- Require the use of low volatile organic compounds (VOC) architectural and industrial maintenance coatings
- Designate an area during construction to charge electric powered construction vehicles and equipment, if temporary power is available
- Prohibit the use of non-emergency diesel-powered generators during construction
- Inform the project proponent of the incentive programs (e.g., Carl Moyer Program and Voucher Incentive Program) offered to reduce air emissions from the Project

## 6) Truck Routing

Truck routing involves the assessment of which roads Heavy Heavy-Duty (HHD) trucks take to and from their destination, and the emissions impact that the HHD trucks may have on residential communities and sensitive receptors. Since the Project consists of the construction and operation of a pistachio hulling, processing and packing facility, the Project has the potential to generate HHD truck trips.

The District recommends the County evaluate HHD truck routing patterns for the Project, with the aim of limiting exposure of residential communities and sensitive receptors to emissions. This evaluation would consider the current truck routes, the quantity and type of each truck (e.g., Medium Heavy-Duty, HHD, etc.), the destination and origin of each trip, traffic volume correlation with the time of day or the day of the week, overall Vehicle Miles Traveled (VMT), and associated exhaust emissions. The truck routing evaluation would also identify alternative truck routes and their impacts on VMT and air quality.

## **7) Cleanest Available Heavy-Duty Trucks**

The San Joaquin Valley will not be able to attain stringent health-based federal air quality standards without significant reductions in emissions from HHD trucks, the single largest source of NO<sub>x</sub> emissions in the San Joaquin Valley. The District's CARB-approved 2018 PM<sub>2.5</sub> Plan includes significant new reductions from HHD trucks, including emissions reductions by 2023 through the implementation of CARB's Statewide Truck and Bus Regulation, which requires truck fleets operating in California to meet the 2010 standard of 0.2 g-NO<sub>x</sub>/bhp-hr by 2023. Additionally, to meet federal air quality attainment standards, the District's Plan relies on a significant and immediate transition of HHD fleets to zero or near-zero emissions technologies, including the near-zero truck standard of 0.02 g/bhp-hr NO<sub>x</sub> established by CARB.

Since the Project consists of the construction and operation of a pistachio hulling, processing and packing facility, the Project has the potential to generate HHD truck trips. Since the Project may exceed the District significance thresholds, the District recommends that the following measures be considered by the County to reduce Project-related operational emissions:

- *Recommended Measure:* Fleets associated with operational activities utilize the cleanest available HHD trucks, including zero and near-zero (0.02 g/bhp-hr NO<sub>x</sub>) technologies.
- *Recommended Measure:* All on-site service equipment (cargo handling, yard hostlers, forklifts, pallet jacks, etc.) utilize zero-emissions technologies.

## **8) Reduce Idling of Heavy-Duty Trucks**

The goal of this strategy is to limit the potential for localized PM<sub>2.5</sub> and toxic air contaminant impacts associated with the idling of Heavy-Duty trucks. The diesel exhaust from idling has the potential to impose significant adverse health and environmental impacts.

Since the Project is expected to result in HHD truck trips, the District recommends the DEIR to include measures to ensure compliance of the state anti-idling regulation (13 CCR § 2485 and 13 CCR § 2480) and discuss the importance of limiting the amount of idling, especially near sensitive receptors. In addition, the District recommends the County consider the feasibility of implementing a more stringent 3-minute idling restriction and requiring appropriate signage and enforcement of idling restrictions.

## **9) Electric On-Site Off-Road and On-Road Equipment**

The Project may have the potential to result in increased use of off-road equipment (e.g., forklifts) and on-road equipment (e.g., mobile yard trucks with the ability to move materials). The District recommends that the DEIR include requirements for project proponents to utilize electric or zero emission off-road and on-road equipment.

## **10)Vegetative Barriers and Urban Greening**

There are single family residential units located south east and north east of the Project. The District suggests the County consider the feasibility of incorporating vegetative barriers and urban greening as a measure to further reduce air pollution exposure on sensitive receptors (e.g., residential units).

While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, vegetative barriers have been shown to be an additional measure to potentially reduce a population's exposure to air pollution through the interception of airborne particles and the uptake of gaseous pollutants. Examples of vegetative barriers include, but are not limited to the following: trees, bushes, shrubs, or a mix of these. Generally, a higher and thicker vegetative barrier with full coverage will result in greater reductions in downwind pollutant concentrations. In the same manner, urban greening is also a way to help improve air quality and public health in addition to enhancing the overall beautification of a community with drought tolerant, low-maintenance greenery.

## **11)On-Site Solar Deployment**

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the County consider incorporating solar power systems as an emission reduction strategy for the Project.

## **12)District Rules and Regulations**

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating

Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: [www.valleyair.org/rules/1ruleslist.htm](http://www.valleyair.org/rules/1ruleslist.htm). To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

### **12a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources**

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project will be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and will require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

### **12b) District Rule 9510 - Indirect Source Review (ISR)**

Per District Rule 9510 section 4.4.3, a development project on a facility whose primary functions are subject to District Rule 2201 or District Rule 2010 are exempt from the requirements of the rule. The District has reviewed the information provided and has determined that the primary functions of this Project are subject to District Rule 2201 (New and Modified Stationary Source Review Rule) or District Rule 2010 (Permits Required). As a result, District Rule 9510 requirements and related fees do not apply to the Project referenced above.

### **12c) District Rule 9410 (Employer Based Trip Reduction)**

The Project may be subject to District Rule 9410 (Employer Based Trip Reduction) if the project would result in employment of 100 or more "eligible" employees. District Rule 9410 requires employers with 100 or more "eligible" employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work

commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees.

Information about District Rule 9410 can be found online at:  
[www.valleyair.org/tripreduction.htm](http://www.valleyair.org/tripreduction.htm).

For additional information, you can contact the District by phone at 559-230-6000 or by e-mail at [etrip@valleyair.org](mailto:etrip@valleyair.org)

#### **12d) District Rule 4601 (Architectural Coatings)**

The Project may be subject to District Rule 4601 since it may utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at:  
<http://www.valleyair.org/rules/currnrules/r4601.pdf>

#### **12e) District Regulation VIII (Fugitive PM10 Prohibitions)**

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*.

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at:  
<https://www.valleyair.org/busind/comply/PM10/forms/DCP-Form.docx>

Information about District Regulation VIII can be found online at:  
[http://www.valleyair.org/busind/comply/pm10/compliance\\_pm10.htm](http://www.valleyair.org/busind/comply/pm10/compliance_pm10.htm)

## **12f) Other District Rules and Regulations**

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

## **13) District Comment Letter**

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Harout Sagherian by e-mail at [Harout.Sagherian@valleyair.org](mailto:Harout.Sagherian@valleyair.org) or by phone at (559) 230-5860.

Sincerely,

Brian Clements  
Director of Permit Services



Mark Montelongo  
Program Manager

RECEIVED  
JUL 11 2022  
SJVUAPCD

**NOTICE OF PREPARATION  
OF A DRAFT ENVIRONMENTAL IMPACT REPORT  
FOR THE S. STAMOULES, INC. PISTACHIO PROCESSING FACILITY PROJECT**

**Date:** July 6, 2022

**To:** Office of Planning and Research, Responsible and Trustee Agencies, Other Public Agencies and Other Interested Parties

**Subject:** Notice of Preparation of Draft Environmental Impact Report for the S. Stamoules, Inc. Pistachio Processing Facility

**Lead Agency:** Fresno County

**Contact:** Ejaz Ahmad, Planner  
Department of Public Works and Planning  
Development Services Division  
2220 Tulare Street, 6th floor  
Fresno, CA 93721  
(559) 600-4204  
EAhmad@FresnoCountyCA.gov

**Comment Period:** July 8, 2022, to August 9, 2022

**PURPOSE OF NOTICE**

Fresno County (County) is the lead agency responsible for preparation of an Environmental Impact Report (EIR) for the S. Stamoules, Inc. Pistachio Processing Facility Project (proposed project). Pursuant to provisions of the California Environmental Quality Act (CEQA), the County has prepared this Notice of Preparation (NOP) for the proposed project. Once a decision is made to prepare an EIR, the lead agency must prepare a NOP to inform all responsible and trustee agencies that an EIR will be prepared (CEQA Guidelines Section 15082). The purpose of this NOP is to provide agencies, interested parties, and organizations with sufficient information describing the proposed project and the potential environmental effects to enable meaningful input related to the scope and content of information to be included in the EIR.

**PUBLIC REVIEW PERIOD**

This NOP is being circulated for public review and comment for a period of 30 days beginning July 8, 2022. The County requests that any potential Responsible or Trustee Agencies responding to this NOP reply in a manner consistent with Section 15082(b) of the CEQA Guidelines, which allows for submittal of any comments in response to this notice no later than 30 days after receipt of the NOP. Comments in response to this NOP will be accepted through 5:00 p.m., August 9, 2022. Please send your written comments to Mr. Ahmad and include your name, address, and phone number and/or email address so that we may contact you for clarification, if necessary.



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STAMOULES

## PUBLIC SCOPING MEETING

The County will hold a public scoping meeting to inform interested parties about the proposed project and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR. The meeting time and location is as follows:

Date: Monday, July 25, 2022

Time: 4 p.m. to 4:30 p.m.

Link: <http://bit.ly/stamoulesscopemeeting> Meeting ID: 220 639 430 437; Passcode: dGW56V, or

Call-in (audio only): 1 559-494-4226; Conference ID: 756 743 547#

## PROJECT DESCRIPTION

S. Stamoules Inc. (Project Applicant) proposes to build a pistachio hulling, processing, and packing facility on a 98-acre portion of a 316.2-acre parcel located in western Fresno County, 8 miles southwest of the City of Mendota. Trucks carrying pistachios from the Project Applicant's orchards would deposit their load on a conveyor belt system that would transport the pistachios through different sections of the proposed facility that include a huller building, a gas-powered dryer area, a drive-over dump pit area, and an area with storage silos which are proposed to be 50 feet in height. Additionally, the processed water from the facility will be conveyed via existing subsurface piping to irrigate approximately 3,740 acres of agricultural land owned by the owner and are located approximately two to six miles to the northeast of the project site located on the northwest corner of S. Newcomb Avenue and W. Muscat Avenue approximately 9.7 mile south of the City of Firebaugh.

The proposed project would be implemented in four phases, and each phase would include the construction and addition of buildings, working areas and equipment to increase the capacity of the project site. Attached to this notice are four figures showing the project location, proposed site plan, partial Site Plan and Process Water Land Application Area.

Phase I of the project would include the construction of a 16,893 square-foot huller building, an approximately 5,608 square-foot drive-over dumping pit area, and an approximately 3,900 square-foot pre-cleaning area. Ten 8 by 29 feet dryers and 18 52- by 52-foot galvanized steel silos, each of 2,200,000-pound capacity, would be added to the project site west of the proposed huller building under Phase I of the proposed project.

Phase II of the project would include the construction of a 155,169-square-foot processing building for pistachios.

Phase III of the project would include the installation of processing, sorting, and packing equipment in the pistachio processing building, as well as the construction of twelve additional silos and the installation of ten additional dryer units.

Finally, Phase IV of the project would include the construction of a second 16,893-square-foot huller building, an additional drive-over dumping pit area and pre-cleaning area, and the construction and installation of 30 additional silos and 20 dryer units.

## **POTENTIAL ENVIRONMENTAL EFFECTS**

The S. Stamoules, Inc. Pistachio Processing Facility EIR will evaluate the potential environmental impacts of the proposed project, after having first established the environmental setting, or baseline, for the environmental analysis. The significance of potential impacts, cumulative impacts, and appropriate mitigation measures associated with implementation of the project will be thoroughly discussed in the EIR.

The following environmental resource topic areas will be evaluated in the EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

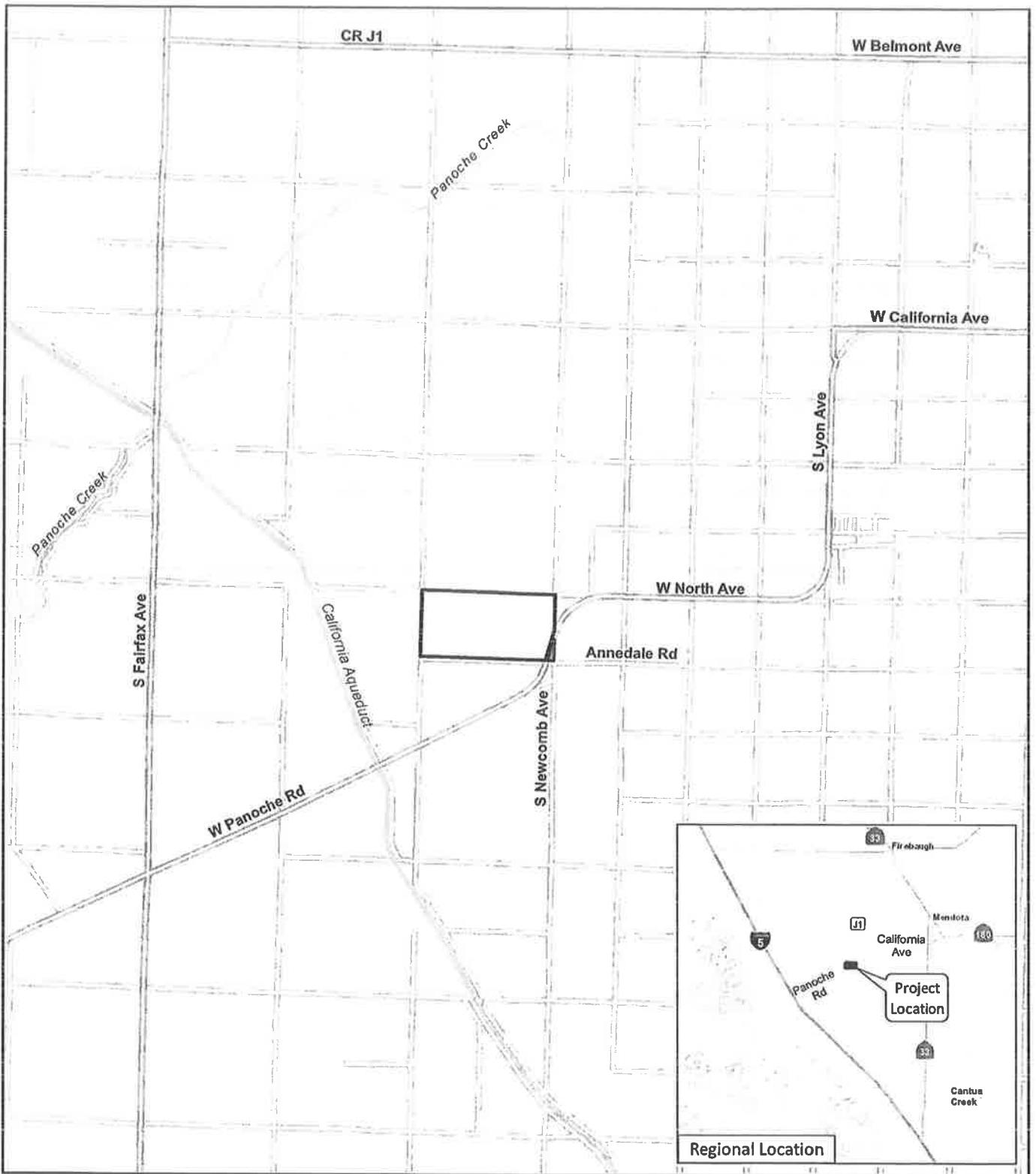


FIGURE 1

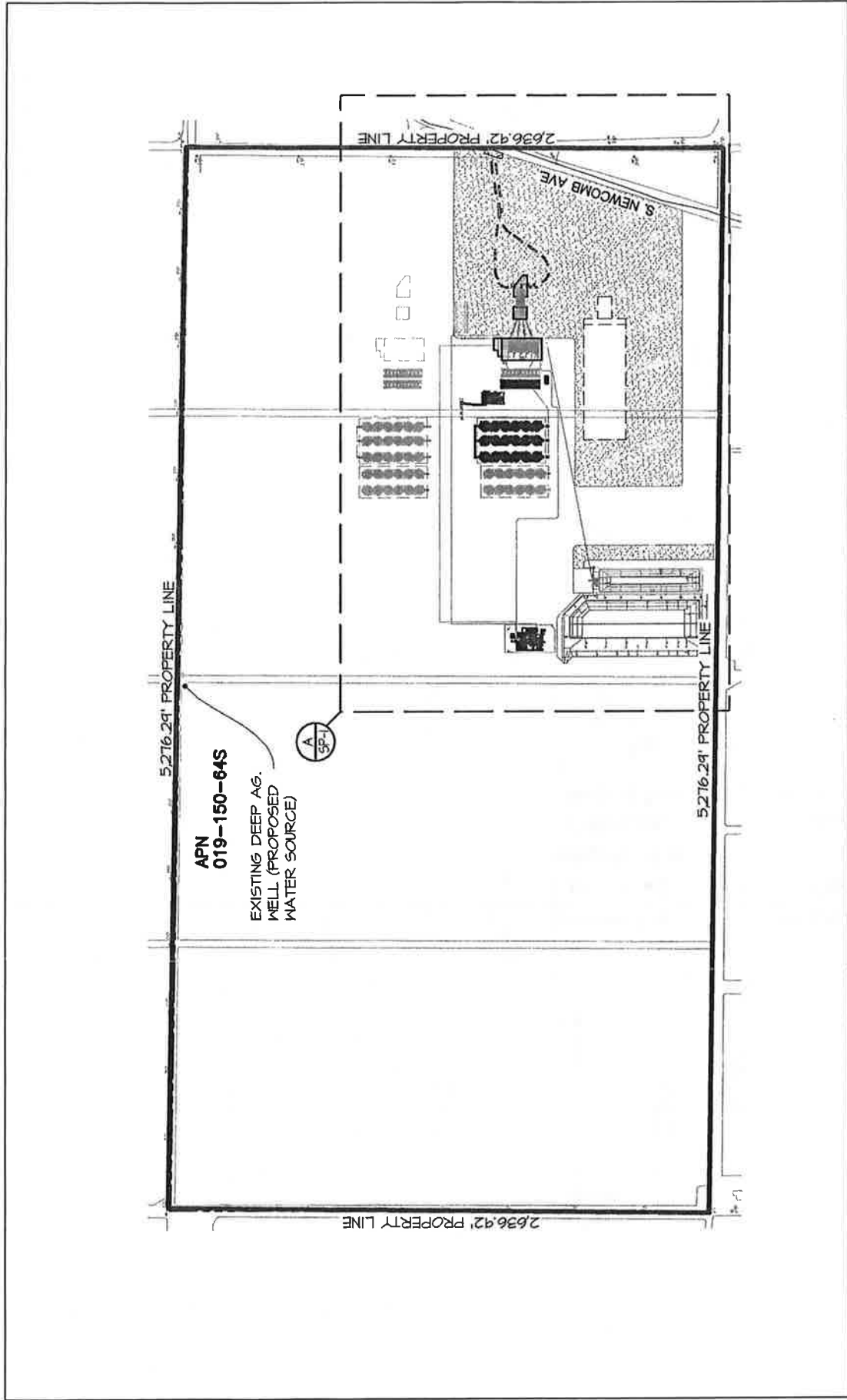
LSA

LEGEND  
 Project Site



SOURCE: Esri World Street Map.

*S. Stamoules, Inc. Pistachio Processing Facility Project*  
*Fresno County, California*  
**Notice of Preparation**  
**Regional and Local Location**



LSA



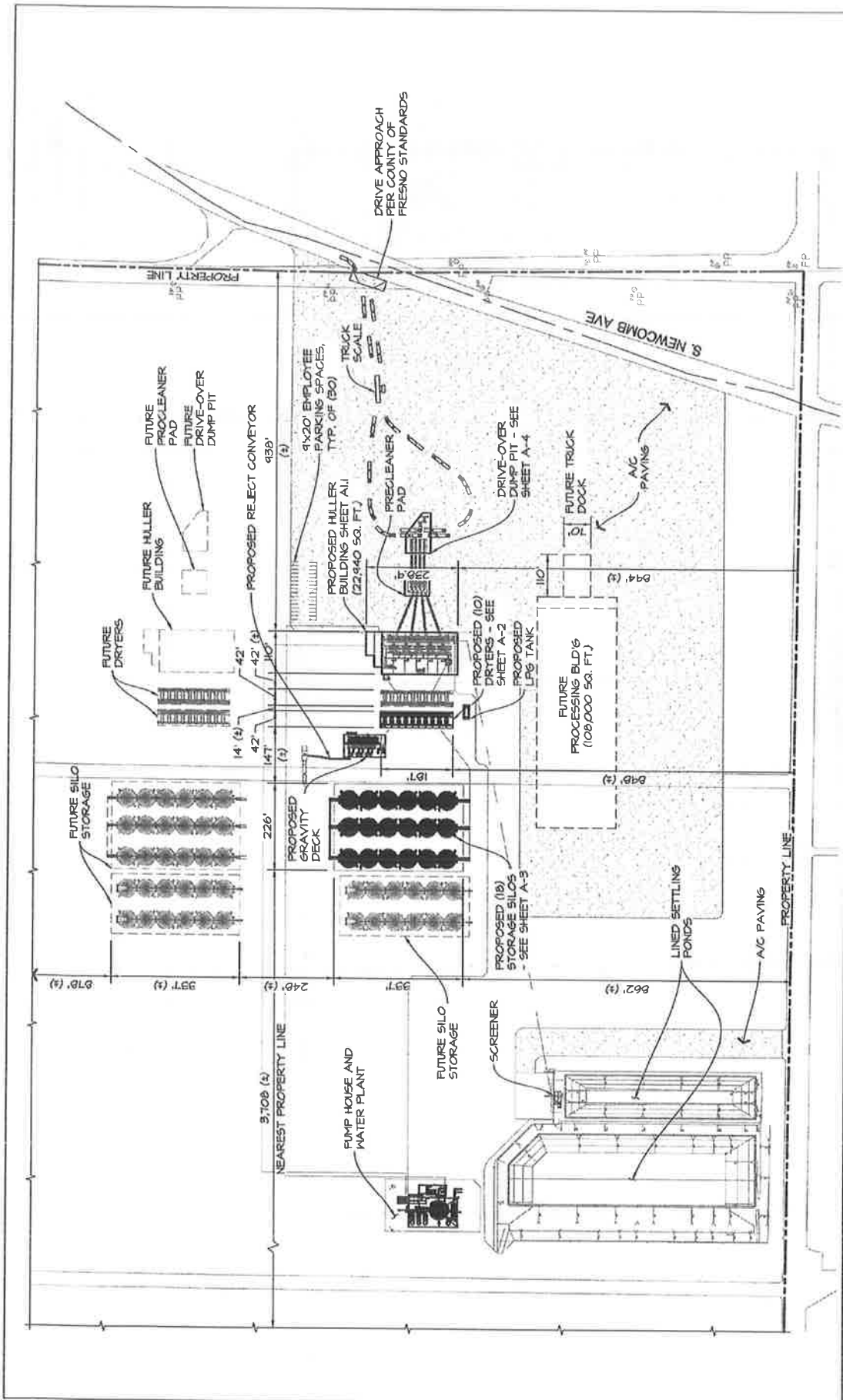
NOT TO SCALE

SOURCE: Engel & Company, 2020

FREProjects:\CFF2201 OPA Pistachio\PRODUCTS\Project Description\Figures\Figure 2.ai (4/19/2022)

FIGURE 2

S. Stamoules, Inc. Pistachio Processing Facility Project  
Fresno County, California  
Notice of Preparation  
Project Site Plan



LSA



NOT TO SCALE

SOURCE: Engel & Company, 2020

F:\Projects\CF2201 OPA Pistachio\PRODUCTS\Project Description\Figures\Figure 3.ai (4/19/2022)

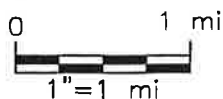
FIGURE 3

S. Stamoules, Inc. Pistachio Processing Facility Project  
 Fresno County, California  
 Notice of Preparation  
 Partial Site Plan



**EXPLANATION:**

LAA - LAND APPLICATION AREA  
 AC - ACRES



(SCALE AND LOCATIONS APPROXIMATE)

(SOURCE: Google Earth Pro Image September 2020, ©2021 Google™)

Figure 1. Site Location Map

PROJECT NUMBER: 2021210059	S. Stamoules Pistachio Processing Facility Conditional Use Permit Application: Projected Land Application Area
DATE: 5 '24 '2021	
DWG NO: 2020210059 F1.DWG	South Valley Engineers S. Newcomb Ave. APN 019-150-64S Mendota, California 93640
DWG BY: PROJECT MANAGER 6NSG 10MSS	
REVISED:	

**VALLEY** **SCIENCE AND ENGI**

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## APPENDIX B

### CALEEMOD OUTPUT SHEETS

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# S. Stamoules, Inc. Pistachio Processing Facility Custom Report

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3.1. Site Preparation (2024) - Unmitigated

3.3. Grading (2024) - Unmitigated

3.5. Building Construction (2024) - Unmitigated

3.7. Building Construction (2025) - Unmitigated

3.9. Building Construction (2026) - Unmitigated

3.11. Building Construction (2027) - Unmitigated

3.13. Paving (2027) - Unmitigated

3.15. Architectural Coating (2027) - Unmitigated

3.17. Architectural Coating (2028) - Unmitigated

#### 4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

#### 4.6. Refrigerant Emissions by Land Use

##### 4.6.1. Unmitigated

#### 4.7. Offroad Emissions By Equipment Type

##### 4.7.1. Unmitigated

#### 4.8. Stationary Emissions By Equipment Type

##### 4.8.1. Unmitigated

#### 4.9. User Defined Emissions By Equipment Type

##### 4.9.1. Unmitigated

#### 4.10. Soil Carbon Accumulation By Vegetation Type

##### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

##### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

##### 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

### 5. Activity Data

#### 5.1. Construction Schedule

#### 5.2. Off-Road Equipment

##### 5.2.1. Unmitigated

#### 5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	S. Stamoules, Inc. Pistachio Processing Facility
Construction Start Date	6/3/2024
Operational Year	2031
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	21.2
Location	36.68793628731633, -120.52393360479269
County	Fresno
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2529
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.19

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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General Heavy Industry	201	1000sqft	4.60	201,049	0.00	—	—	—
Other Non-Asphalt Surfaces	9.51	1000sqft	93.2	0.00	0.00	—	—	—
Parking Lot	30.0	Space	0.30	0.00	0.00	—	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.45	39.9	30.8	0.06	1.39	7.76	8.88	1.28	3.96	4.98	—	6,871	6,871	0.28	0.11	6,896
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	41.4	39.7	30.7	0.06	1.39	3.70	5.08	1.28	1.45	2.73	—	6,857	6,857	0.28	0.11	6,882
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.22	14.8	12.3	0.02	0.50	1.82	2.30	0.46	0.83	1.27	—	2,359	2,359	0.10	0.08	2,384
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.59	2.70	2.24	< 0.005	0.09	0.33	0.42	0.08	0.15	0.23	—	391	391	0.02	0.01	395

### 2.2. Construction Emissions by Year, Unmitigated



Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.45	39.9	30.8	0.06	1.39	7.76	8.88	1.28	3.96	4.98	—	6,871	6,871	0.28	0.06	6,896
2025	1.01	19.8	17.8	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,343	3,343	0.12	0.11	3,381
2026	0.98	19.7	17.5	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,324	3,324	0.12	0.11	3,361
2027	0.96	19.7	17.3	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,304	3,304	0.12	0.10	3,340
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.44	39.7	30.7	0.06	1.39	3.70	5.08	1.28	1.45	2.73	—	6,857	6,857	0.28	0.11	6,882
2025	0.96	19.8	17.2	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,286	3,286	0.13	0.11	3,321
2026	0.94	19.8	17.0	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,268	3,268	0.13	0.11	3,303
2027	41.4	19.8	16.8	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,250	3,250	0.13	0.10	3,284
2028	41.4	1.12	1.36	< 0.005	0.07	0.09	0.16	0.06	0.02	0.08	—	219	219	0.01	0.01	221
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.71	14.8	11.3	0.02	0.48	1.82	2.30	0.44	0.83	1.27	—	2,341	2,341	0.10	0.03	2,351
2025	0.69	14.1	12.3	0.02	0.50	0.40	0.90	0.46	0.10	0.56	—	2,359	2,359	0.09	0.08	2,384
2026	0.68	14.1	12.1	0.02	0.50	0.40	0.90	0.46	0.10	0.56	—	2,346	2,346	0.09	0.08	2,371
2027	3.22	11.9	10.1	0.02	0.44	0.30	0.74	0.41	0.07	0.48	—	1,894	1,894	0.07	0.05	1,912
2028	2.84	0.08	0.09	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	15.2	15.2	< 0.005	< 0.005	15.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.13	2.70	2.07	< 0.005	0.09	0.33	0.42	0.08	0.15	0.23	—	388	388	0.02	< 0.005	389
2025	0.13	2.58	2.24	< 0.005	0.09	0.07	0.16	0.08	0.02	0.10	—	391	391	0.01	0.01	395
2026	0.12	2.58	2.21	< 0.005	0.09	0.07	0.16	0.08	0.02	0.10	—	388	388	0.01	0.01	393
2027	0.59	2.18	1.85	< 0.005	0.08	0.06	0.13	0.07	0.01	0.09	—	314	314	0.01	0.01	317

2028	0.52	0.01	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.52	2.52	< 0.005	< 0.005	2.54
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## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.85	3.36	12.2	0.02	0.26	0.20	0.47	0.26	0.05	0.31	2,904	10,773	13,677	293	1.60	21,534
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.41	3.30	3.24	0.02	0.25	0.20	0.45	0.25	0.05	0.30	2,904	10,715	13,619	293	1.60	21,476
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.12	3.33	7.59	0.02	0.26	0.20	0.46	0.25	0.05	0.31	2,904	7,699	10,603	293	1.54	18,430
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.12	0.61	1.38	< 0.005	0.05	0.04	0.08	0.05	0.01	0.06	481	1,275	1,755	48.5	0.25	3,051

## 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.05	0.03	0.69	< 0.005	< 0.005	0.20	0.21	< 0.005	0.05	0.05	—	192	192	< 0.005	< 0.005	193
Area	6.63	0.07	8.74	< 0.005	0.02	—	0.02	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	36.1
Energy	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	9,860	9,860	1.31	0.12	9,930

Water	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Waste	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Off-Road	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	6.85	3.36	12.2	0.02	0.26	0.20	0.47	0.26	0.05	0.31	2,904	10,773	13,677	293	1.60	21,534
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.04	0.50	< 0.005	< 0.005	0.20	0.21	< 0.005	0.05	0.05	—	170	170	< 0.005	< 0.005	171
Area	5.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	9,860	9,860	1.31	0.12	9,930
Water	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Waste	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Off-Road	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	5.41	3.30	3.24	0.02	0.25	0.20	0.45	0.25	0.05	0.30	2,904	10,715	13,619	293	1.60	21,476
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.03	0.54	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	176	176	< 0.005	< 0.005	177
Area	5.90	0.04	4.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	17.7	17.7	< 0.005	< 0.005	17.8
Energy	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	6,820	6,820	0.82	0.06	6,860
Water	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Waste	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Off-Road	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	6.12	3.33	7.59	0.02	0.26	0.20	0.46	0.25	0.05	0.31	2,904	7,699	10,603	293	1.54	18,430
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	29.1	29.1	< 0.005	< 0.005	29.4
Area	1.08	0.01	0.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.94	2.94	< 0.005	< 0.005	2.95

Energy	0.03	0.59	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,129	1,129	0.14	0.01	1,136
Water	—	—	—	—	—	—	—	—	—	—	98.8	113	212	10.1	0.24	538
Waste	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	1,336
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.66
Off-Road	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	1.12	0.61	1.38	< 0.005	0.05	0.04	0.08	0.05	0.01	0.06	481	1,275	1,755	48.5	0.25	3,051

### 3. Construction Emissions Details

#### 3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	39.9	28.3	0.05	1.12	—	1.12	1.02	—	1.02	—	5,296	5,296	0.21	0.04	5,314
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	5.46	3.88	0.01	0.15	—	0.15	0.14	—	0.14	—	725	725	0.03	0.01	728

Dust From Material Movement	—	—	—	—	—	1.05	1.05	—	0.54	0.54	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	1.00	0.71	< 0.005	0.03	—	0.03	0.03	—	0.03	—	120	120	< 0.005	< 0.005	121
Dust From Material Movement	—	—	—	—	—	0.19	0.19	—	0.10	0.10	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.04	0.71	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	0.01	< 0.005	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.6	13.6	< 0.005	< 0.005	13.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.26	2.26	< 0.005	< 0.005	2.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.36	39.6	30.0	0.06	1.39	—	1.39	1.28	—	1.28	—	6,747	6,747	0.27	0.05	6,770
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.36	39.6	30.0	0.06	1.39	—	1.39	1.28	—	1.28	—	6,747	6,747	0.27	0.05	6,770
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	7.59	5.76	0.01	0.27	—	0.27	0.25	—	0.25	—	1,294	1,294	0.05	0.01	1,298
Dust From Material Movement	—	—	—	—	—	0.69	0.69	—	0.27	0.27	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	1.39	1.05	< 0.005	0.05	—	0.05	0.04	—	0.04	—	214	214	0.01	< 0.005	215
Dust From Material Movement	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.05	0.81	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	124	124	0.01	0.01	126
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.66	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	110	110	0.01	0.01	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.13	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.8	21.8	< 0.005	< 0.005	22.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.62	3.62	< 0.005	< 0.005	3.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.62	1.23	< 0.005	0.06	—	0.06	0.06	—	0.06	—	206	206	0.01	< 0.005	207
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.30	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.2	34.2	< 0.005	< 0.005	34.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Worker	0.34	0.27	2.77	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	464	464	0.02	0.02	471
Vendor	0.02	0.77	0.34	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	442	442	0.01	0.06	462
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.24	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.4	41.4	< 0.005	< 0.005	42.1
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.0	38.0	< 0.005	0.01	39.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.85	6.85	< 0.005	< 0.005	6.97
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.30	6.30	< 0.005	< 0.005	6.58
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,713	1,713	0.07	0.01	1,719	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	284	284	0.01	< 0.005	285	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.36	0.19	3.14	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	512	512	0.01	0.02	521	
Vendor	0.02	0.70	0.31	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	433	433	0.01	0.06	454	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.32	0.23	2.55	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	454	454	0.02	0.02	461	
Vendor	0.02	0.74	0.32	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	434	434	0.01	0.06	454	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.23	0.15	1.85	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	336	336	0.01	0.02	342	
Vendor	0.02	0.52	0.23	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	310	310	0.01	0.05	324	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Worker	0.04	0.03	0.34	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	55.7	55.7	< 0.005	< 0.005	56.6
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	51.3	51.3	< 0.005	0.01	53.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,712	1,712	0.07	0.01	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.17	2.89	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	501	501	0.01	0.02	510	
Vendor	0.02	0.67	0.30	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	425	425	0.01	0.06	446	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.30	0.21	2.34	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	445	445	0.02	0.02	452	
Vendor	0.02	0.72	0.32	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	426	426	0.01	0.06	445	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.22	0.14	1.70	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	329	329	0.01	0.02	335	
Vendor	0.02	0.50	0.22	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	304	304	0.01	0.05	318	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.04	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	54.5	54.5	< 0.005	< 0.005	55.4	
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	50.3	50.3	< 0.005	0.01	52.7	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	

### 3.11. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	9.60	7.28	0.01	0.35	—	0.35	0.33	—	0.33	—	1,220	1,220	0.05	0.01	1,224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	1.75	1.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	202	202	0.01	< 0.005	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.16	2.67	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	491	491	0.01	0.02	499
Vendor	0.02	0.65	0.29	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	416	416	0.01	0.06	436
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.19	2.17	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	436	436	0.02	0.02	443
Vendor	0.02	0.70	0.31	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	417	417	0.01	0.06	436
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.09	1.12	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	230	230	0.01	0.01	234
Vendor	0.01	0.35	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	212	212	0.01	0.03	222
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.0	38.0	< 0.005	< 0.005	38.7
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.1	35.1	< 0.005	0.01	36.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.13. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	13.3	10.6	0.01	0.58	—	0.58	0.54	—	0.54	—	1,511	1,511	0.06	0.01	1,516
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	13.3	10.6	0.01	0.58	—	0.58	0.54	—	0.54	—	1,511	1,511	0.06	0.01	1,516
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	1.82	1.45	< 0.005	0.08	—	0.08	0.07	—	0.07	—	207	207	0.01	< 0.005	208
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.33	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.3	34.3	< 0.005	< 0.005	34.4
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.03	0.47	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	87.2	87.2	< 0.005	< 0.005	88.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.03	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.4	77.4	< 0.005	< 0.005	78.7

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	11.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.82	1.82	< 0.005	< 0.005	1.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.15. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	41.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Off-Road Equipment	< 0.005	0.07	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.62	8.62	< 0.005	< 0.005	8.65
Architectural Coatings	2.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	1.43
Architectural Coatings	0.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.43	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	87.2	87.2	< 0.005	< 0.005	88.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.83	5.83	< 0.005	< 0.005	5.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	0.98

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.17. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	41.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.15	9.15	< 0.005	< 0.005	9.18
Architectural Coatings	2.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.51	1.51	< 0.005	< 0.005	1.52

Architectu Coatings	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.40	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	85.5	85.5	< 0.005	< 0.005	86.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.07	6.07	< 0.005	< 0.005	6.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.05	0.03	0.69	< 0.005	< 0.005	0.20	0.21	< 0.005	0.05	0.05	—	192	192	< 0.005	< 0.005	193
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.05	0.03	0.69	< 0.005	< 0.005	0.20	0.21	< 0.005	0.05	0.05	—	192	192	< 0.005	< 0.005	193
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.04	0.04	0.50	< 0.005	< 0.005	0.20	0.21	< 0.005	0.05	0.05	—	170	170	< 0.005	< 0.005	171
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.50	< 0.005	< 0.005	0.20	0.21	< 0.005	0.05	0.05	—	170	170	< 0.005	< 0.005	171
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.01	0.01	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	29.1	29.1	< 0.005	< 0.005	29.4
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Total	0.01	0.01	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	29.1	29.1	< 0.005	< 0.005	29.4
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## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	718	718	0.12	0.01	725
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	6.40	6.40	< 0.005	< 0.005	6.46
undefined	—	—	—	—	—	—	—	—	—	—	—	5,246	5,246	0.85	0.10	5,298
Total	—	—	—	—	—	—	—	—	—	—	—	5,970	5,970	0.97	0.12	6,029
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	718	718	0.12	0.01	725
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	6.40	6.40	< 0.005	< 0.005	6.46
undefined	—	—	—	—	—	—	—	—	—	—	—	5,246	5,246	0.85	0.10	5,298
Total	—	—	—	—	—	—	—	—	—	—	—	5,970	5,970	0.97	0.12	6,029

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	119	119	0.02	< 0.005	120
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06	< 0.005	< 0.005	1.07
undefined	—	—	—	—	—	—	—	—	—	—	—	365	365	0.06	0.01	369
Total	—	—	—	—	—	—	—	—	—	—	—	485	485	0.08	0.01	490

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	3,890	3,890	0.34	0.01	3,900
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	3,890	3,890	0.34	0.01	3,900
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	3,890	3,890	0.34	0.01	3,900

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	3,890	3,890	0.34	0.01	3,900
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.03	0.59	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	644	644	0.06	< 0.005	646
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.03	0.59	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	644	644	0.06	< 0.005	646

### 4.3. Area Emissions by Source

#### 4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscap e Equipmen t	1.44	0.07	8.74	< 0.005	0.02	—	0.02	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	36.1
Total	6.63	0.07	8.74	< 0.005	0.02	—	0.02	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	36.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipmen t	0.13	0.01	0.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.94	2.94	< 0.005	< 0.005	2.95
Total	1.08	0.01	0.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.94	2.94	< 0.005	< 0.005	2.95

#### 4.4. Water Emissions by Land Use

##### 4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
----------	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	------



Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	98.8	113	212	10.1	0.24	538
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	98.8	113	212	10.1	0.24	538

## 4.5. Waste Emissions by Land Use

### 4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	1,336

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	1,336

#### 4.6. Refrigerant Emissions by Land Use

##### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.66
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.66

## 4.7. Offroad Emissions By Equipment Type

### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Forklifts	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Forklifts	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Forklifts	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

## 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type

##### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/3/2024	8/9/2024	5.00	50.0	—
Grading	Grading	8/12/2024	11/15/2024	5.00	70.0	—
Building Construction	Building Construction	11/18/2024	9/17/2027	5.00	740	—
Paving	Paving	9/20/2027	11/26/2027	5.00	50.0	—
Architectural Coating	Architectural Coating	11/29/2027	2/4/2028	5.00	50.0	—

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 2	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 2	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 2	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 2	1.00	8.00	367	0.40

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Forklifts	Diesel	Tier 2	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 2	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 2	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 2	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 2	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 2	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 2	1.00	6.00	37.0	0.48

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	4.00	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	84.4	7.70	LDA,LDT1,LDT2

Building Construction	Vendor	33.0	4.00	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	4.00	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	16.9	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	301,574	100,525	244,372

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	75.0	0.00	—
Grading	—	—	210	0.00	—
Paving	0.00	0.00	0.00	0.00	93.5

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%
Other Non-Asphalt Surfaces	93.2	0%
Parking Lot	0.30	100%

## 5.8. Construction Electricity Consumption and Emissions Factors

### kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005
2028	0.00	204	0.03	< 0.005

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Heavy Industry	47.0	47.0	47.0	17,172	685	685	685	249,904
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	301,574	100,525	244,372

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

## 5.11. Operational Energy Consumption

## 5.11.1. Unmitigated

## Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Heavy Industry	1,285,272	204	0.0330	0.0040	12,136,607
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Parking Lot	11,448	204	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

## 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Heavy Industry	311,400,000	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Parking Lot	0.00	0.00

## 5.13. Operational Waste Generation

## 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Heavy Industry	4,280	—
Other Non-Asphalt Surfaces	0.00	—
Parking Lot	0.00	—

## 5.14. Operational Refrigeration and Air Conditioning Equipment

## 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
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General Heavy Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
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## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Other Material Handling Equipment	Electric	Average	3.00	18.0	64.0	0.80
Other Material Handling Equipment	Electric	Average	2.00	18.0	6.00	0.80
Other Material Handling Equipment	Electric	Average	10.0	18.0	45.3	0.80
Other General Industrial Equipment	Electric	Average	10.0	18.0	53.0	0.80
Forklifts	Electric	Average	10.0	18.0	82.0	0.20
Skid Steer Loaders	Electric	Average	10.0	18.0	71.0	0.37
Rubber Tired Loaders	Electric	Average	10.0	18.0	150	0.36

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
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## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Construction of the proposed project is expected to occur intermittently in four phases over a period of approximately 44 months starting in 2024. To be conservative, this analysis assumes an overall 44-month schedule.
Construction: Off-Road Equipment	Assuming the use of Tier 2 construction equipment.
Operations: Vehicle Data	The proposed project would include 43 employee trips and 4 service vehicle trips. Raw Material Hauling Trucks and Dry Waste Hauling Trucks evaluated in a separate model run.



Operations: Fleet Mix	Fleet mix was revised to reflect 43 employee trips and 4 service vehicle trips (100% LHD2). All hauling trips are evaluated in a separate model run.
Operations: Energy Use	Daily Electrical and natural gas demand for these phases is based on in Table 3.A of the Project Description (assuming the equipment uses would be not subject to Title 24).
Operations: Off-Road Equipment	<p>The project will include the following equipment:</p> <ul style="list-style-type: none"> <li>- 3 Forsburgs Gravity Deck, each consisting of a 1 HP motor, a 3 HP motor and a 60 HP motor with a 0.8-load factor. The main power used in the operation of these units is electricity.</li> <li>- 2 LMC Scalpers, each consisting of a 1 HP motor and a 5 HP motor with a 0.8-load factor. The main power used in the operation of these units is electricity.</li> <li>- 10 Magnuson Peeler machines, each consisting of a 0.75 HP motor, a 2 HP motor, a 7.5 HP motor, a 15 HP motor and a 20 HP motor with a 0,8-load factor. The main power used in the operation of these units is electricity.</li> <li>- 10 Sukup Dryers, each consisting of a 1HP motor, a 2 HP motor, a 10 HP motor, and a 4x40 HP motor with a 0.8 load factor. These unit will run off natural gas and electricity (this analysis is assuming electric as CalEEMod doesn't provide default emission factors for CNG).</li> </ul> <p>The harvest season is 45 days long and which time the machinery would be running 8 hours a day for a total of 810 hours.</p> <p>Also assuming 10 forklifts, 10 skid steer loaders, and 10 rubber tired loaders.</p>
Land Use	The project site is 98 acres in size. Assuming that all areas not covered by buildings or the parking lot would be paved as no landscaping is proposed for the project site.
Operations: Solid Waste	It is estimated that the project site would produce approximately 8,562,667 pounds of solid waste.
Operations: Water and Waste Water	The proposed project would generate approximately 311.4 million gallons of wastewater annually.

# S. Stamoules, Inc. Pistachio Processing Facility - HHDT Custom Report

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8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	S. Stamoules, Inc. Pistachio Processing Facility - HHDT
Construction Start Date	6/3/2024
Operational Year	2031
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.90
Precipitation (days)	21.2
Location	36.68793628731633, -120.52393360479269
County	Fresno
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2529
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.19

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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General Heavy Industry	201	1000sqft	4.60	201,049	0.00	—	—	—
Other Non-Asphalt Surfaces	9.51	1000sqft	93.2	0.00	0.00	—	—	—
Parking Lot	30.0	Space	0.30	0.00	0.00	—	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.45	39.9	30.8	0.06	1.39	7.76	8.88	1.28	3.96	4.98	—	6,871	6,871	0.28	0.11	6,896
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	41.4	39.7	30.7	0.06	1.39	3.70	5.08	1.28	1.45	2.73	—	6,857	6,857	0.28	0.11	6,882
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.22	14.8	12.3	0.02	0.50	1.82	2.30	0.46	0.83	1.27	—	2,359	2,359	0.10	0.08	2,384
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.59	2.70	2.24	< 0.005	0.09	0.33	0.42	0.08	0.15	0.23	—	391	391	0.02	0.01	395

### 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.45	39.9	30.8	0.06	1.39	7.76	8.88	1.28	3.96	4.98	—	6,871	6,871	0.28	0.06	6,896
2025	1.01	19.8	17.8	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,343	3,343	0.12	0.11	3,381
2026	0.98	19.7	17.5	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,324	3,324	0.12	0.11	3,361
2027	0.96	19.7	17.3	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,304	3,304	0.12	0.10	3,340
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.44	39.7	30.7	0.06	1.39	3.70	5.08	1.28	1.45	2.73	—	6,857	6,857	0.28	0.11	6,882
2025	0.96	19.8	17.2	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,286	3,286	0.13	0.11	3,321
2026	0.94	19.8	17.0	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,268	3,268	0.13	0.11	3,303
2027	41.4	19.8	16.8	0.03	0.69	0.57	1.26	0.65	0.14	0.79	—	3,250	3,250	0.13	0.10	3,284
2028	41.4	1.12	1.36	< 0.005	0.07	0.09	0.16	0.06	0.02	0.08	—	219	219	0.01	0.01	221
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.71	14.8	11.3	0.02	0.48	1.82	2.30	0.44	0.83	1.27	—	2,341	2,341	0.10	0.03	2,351
2025	0.69	14.1	12.3	0.02	0.50	0.40	0.90	0.46	0.10	0.56	—	2,359	2,359	0.09	0.08	2,384
2026	0.68	14.1	12.1	0.02	0.50	0.40	0.90	0.46	0.10	0.56	—	2,346	2,346	0.09	0.08	2,371
2027	3.22	11.9	10.1	0.02	0.44	0.30	0.74	0.41	0.07	0.48	—	1,894	1,894	0.07	0.05	1,912
2028	2.84	0.08	0.09	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	15.2	15.2	< 0.005	< 0.005	15.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.13	2.70	2.07	< 0.005	0.09	0.33	0.42	0.08	0.15	0.23	—	388	388	0.02	< 0.005	389
2025	0.13	2.58	2.24	< 0.005	0.09	0.07	0.16	0.08	0.02	0.10	—	391	391	0.01	0.01	395
2026	0.12	2.58	2.21	< 0.005	0.09	0.07	0.16	0.08	0.02	0.10	—	388	388	0.01	0.01	393
2027	0.59	2.18	1.85	< 0.005	0.08	0.06	0.13	0.07	0.01	0.09	—	314	314	0.01	0.01	317

2028	0.52	0.01	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.52	2.52	< 0.005	< 0.005	2.54
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## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.18	29.0	16.7	0.24	0.73	7.37	8.10	0.71	1.98	2.69	2,904	34,449	37,352	294	5.37	46,383
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.72	30.7	8.01	0.24	0.72	7.37	8.08	0.69	1.98	2.68	2,904	34,422	37,325	294	5.37	46,316
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.44	30.2	12.3	0.24	0.72	7.29	8.01	0.70	1.96	2.66	2,904	31,395	34,298	293	5.31	43,275
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.18	5.51	2.24	0.04	0.13	1.33	1.46	0.13	0.36	0.49	481	5,198	5,678	48.5	0.88	7,165

## 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.37	25.7	5.20	0.22	0.47	7.37	7.83	0.45	1.98	2.43	—	23,867	23,867	0.36	3.77	25,042
Area	6.63	0.07	8.74	< 0.005	0.02	—	0.02	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	36.1
Energy	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	9,860	9,860	1.31	0.12	9,930

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Water	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Waste	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Off-Road	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	7.18	29.0	16.7	0.24	0.73	7.37	8.10	0.71	1.98	2.69	2,904	34,449	37,352	294	5.37	46,383
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.35	27.4	5.27	0.22	0.47	7.37	7.83	0.45	1.98	2.43	—	23,876	23,876	0.36	3.78	25,012
Area	5.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	9,860	9,860	1.31	0.12	9,930
Water	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Waste	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Off-Road	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	5.72	30.7	8.01	0.24	0.72	7.37	8.08	0.69	1.98	2.68	2,904	34,422	37,325	294	5.37	46,316
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.36	26.9	5.23	0.22	0.47	7.29	7.76	0.45	1.96	2.41	—	23,871	23,871	0.36	3.77	25,023
Area	5.90	0.04	4.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	17.7	17.7	< 0.005	< 0.005	17.8
Energy	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	6,820	6,820	0.82	0.06	6,860
Water	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Waste	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Off-Road	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	6.44	30.2	12.3	0.24	0.72	7.29	8.01	0.70	1.96	2.66	2,904	31,395	34,298	293	5.31	43,275
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	4.91	0.95	0.04	0.09	1.33	1.42	0.08	0.36	0.44	—	3,952	3,952	0.06	0.62	4,143
Area	1.08	0.01	0.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.94	2.94	< 0.005	< 0.005	2.95

Energy	0.03	0.59	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,129	1,129	0.14	0.01	1,136
Water	—	—	—	—	—	—	—	—	—	—	98.8	113	212	10.1	0.24	538
Waste	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	1,336
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.66
Off-Road	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	1.18	5.51	2.24	0.04	0.13	1.33	1.46	0.13	0.36	0.49	481	5,198	5,678	48.5	0.88	7,165

### 3. Construction Emissions Details

#### 3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	39.9	28.3	0.05	1.12	—	1.12	1.02	—	1.02	—	5,296	5,296	0.21	0.04	5,314
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	5.46	3.88	0.01	0.15	—	0.15	0.14	—	0.14	—	725	725	0.03	0.01	728

Dust From Material Movement	—	—	—	—	—	1.05	1.05	—	0.54	0.54	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	1.00	0.71	< 0.005	0.03	—	0.03	0.03	—	0.03	—	120	120	< 0.005	< 0.005	121
Dust From Material Movement	—	—	—	—	—	0.19	0.19	—	0.10	0.10	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.04	0.71	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	0.01	< 0.005	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.6	13.6	< 0.005	< 0.005	13.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.26	2.26	< 0.005	< 0.005	2.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.36	39.6	30.0	0.06	1.39	—	1.39	1.28	—	1.28	—	6,747	6,747	0.27	0.05	6,770
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.36	39.6	30.0	0.06	1.39	—	1.39	1.28	—	1.28	—	6,747	6,747	0.27	0.05	6,770
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	7.59	5.76	0.01	0.27	—	0.27	0.25	—	0.25	—	1,294	1,294	0.05	0.01	1,298
Dust From Material Movement	—	—	—	—	—	0.69	0.69	—	0.27	0.27	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	1.39	1.05	< 0.005	0.05	—	0.05	0.04	—	0.04	—	214	214	0.01	< 0.005	215
Dust From Material Movement	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.05	0.81	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	124	124	0.01	0.01	126
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.66	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	110	110	0.01	0.01	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.13	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.8	21.8	< 0.005	< 0.005	22.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.62	3.62	< 0.005	< 0.005	3.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00



### 3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.62	1.23	< 0.005	0.06	—	0.06	0.06	—	0.06	—	206	206	0.01	< 0.005	207
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.30	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.2	34.2	< 0.005	< 0.005	34.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.34	0.27	2.77	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	464	464	0.02	0.02	471
Vendor	0.02	0.77	0.34	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	442	442	0.01	0.06	462
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.24	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.4	41.4	< 0.005	< 0.005	42.1
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.0	38.0	< 0.005	0.01	39.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.85	6.85	< 0.005	< 0.005	6.97
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.30	6.30	< 0.005	< 0.005	6.58
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,398	2,398	0.10	0.02	2,406

S. Stamoules, Inc. Pistachio Processing Facility - HHDT Custom Report, 10/3/2023

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,713	1,713	0.07	0.01	1,719	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	284	284	0.01	< 0.005	285	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.36	0.19	3.14	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	512	512	0.01	0.02	521	
Vendor	0.02	0.70	0.31	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	433	433	0.01	0.06	454	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.32	0.23	2.55	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	454	454	0.02	0.02	461	
Vendor	0.02	0.74	0.32	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	434	434	0.01	0.06	454	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.23	0.15	1.85	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	336	336	0.01	0.02	342	
Vendor	0.02	0.52	0.23	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	310	310	0.01	0.05	324	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Worker	0.04	0.03	0.34	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	55.7	55.7	< 0.005	< 0.005	56.6
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	51.3	51.3	< 0.005	0.01	53.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,712	1,712	0.07	0.01	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.17	2.89	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	501	501	0.01	0.02	510	
Vendor	0.02	0.67	0.30	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	425	425	0.01	0.06	446	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.30	0.21	2.34	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	445	445	0.02	0.02	452	
Vendor	0.02	0.72	0.32	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	426	426	0.01	0.06	445	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.22	0.14	1.70	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	329	329	0.01	0.02	335	
Vendor	0.02	0.50	0.22	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	304	304	0.01	0.05	318	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.04	0.03	0.31	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	54.5	54.5	< 0.005	< 0.005	55.4	
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	50.3	50.3	< 0.005	0.01	52.7	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	

### 3.11. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	9.60	7.28	0.01	0.35	—	0.35	0.33	—	0.33	—	1,220	1,220	0.05	0.01	1,224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	1.75	1.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	202	202	0.01	< 0.005	203
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.16	2.67	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	491	491	0.01	0.02	499
Vendor	0.02	0.65	0.29	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	416	416	0.01	0.06	436
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.19	2.17	0.00	0.00	0.46	0.46	0.00	0.11	0.11	—	436	436	0.02	0.02	443
Vendor	0.02	0.70	0.31	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	417	417	0.01	0.06	436
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.09	1.12	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	230	230	0.01	0.01	234
Vendor	0.01	0.35	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	212	212	0.01	0.03	222
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.20	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.0	38.0	< 0.005	< 0.005	38.7
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.1	35.1	< 0.005	0.01	36.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.13. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	13.3	10.6	0.01	0.58	—	0.58	0.54	—	0.54	—	1,511	1,511	0.06	0.01	1,516
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	13.3	10.6	0.01	0.58	—	0.58	0.54	—	0.54	—	1,511	1,511	0.06	0.01	1,516
Paving	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	1.82	1.45	< 0.005	0.08	—	0.08	0.07	—	0.07	—	207	207	0.01	< 0.005	208
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.33	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.3	34.3	< 0.005	< 0.005	34.4
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.03	0.47	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	87.2	87.2	< 0.005	< 0.005	88.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.03	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.4	77.4	< 0.005	< 0.005	78.7



Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	11.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.82	1.82	< 0.005	< 0.005	1.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

### 3.15. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	41.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

S. Stamoules, Inc. Pistachio Processing Facility - HHDT Custom Report, 10/3/2023

Off-Road Equipment	< 0.005	0.07	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.62	8.62	< 0.005	< 0.005	8.65
Architectural Coatings	2.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.43	1.43	< 0.005	< 0.005	1.43
Architectural Coatings	0.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.43	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	87.2	87.2	< 0.005	< 0.005	88.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.83	5.83	< 0.005	< 0.005	5.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	0.98

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00

### 3.17. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	41.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.15	9.15	< 0.005	< 0.005	9.18
Architectural Coatings	2.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.51	1.51	< 0.005	< 0.005	1.52

Architectu Coatings	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.40	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	85.5	85.5	< 0.005	< 0.005	86.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.07	6.07	< 0.005	< 0.005	6.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.37	25.7	5.20	0.22	0.47	7.37	7.83	0.45	1.98	2.43	—	23,867	23,867	0.36	3.77	25,042
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.37	25.7	5.20	0.22	0.47	7.37	7.83	0.45	1.98	2.43	—	23,867	23,867	0.36	3.77	25,042
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.35	27.4	5.27	0.22	0.47	7.37	7.83	0.45	1.98	2.43	—	23,876	23,876	0.36	3.78	25,012
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.35	27.4	5.27	0.22	0.47	7.37	7.83	0.45	1.98	2.43	—	23,876	23,876	0.36	3.78	25,012
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.07	4.91	0.95	0.04	0.09	1.33	1.42	0.08	0.36	0.44	—	3,952	3,952	0.06	0.62	4,143
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Total	0.07	4.91	0.95	0.04	0.09	1.33	1.42	0.08	0.36	0.44	—	3,952	3,952	0.06	0.62	4,143
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## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	718	718	0.12	0.01	725
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	6.40	6.40	< 0.005	< 0.005	6.46
undefined	—	—	—	—	—	—	—	—	—	—	—	5,246	5,246	0.85	0.10	5,298
Total	—	—	—	—	—	—	—	—	—	—	—	5,970	5,970	0.97	0.12	6,029
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	718	718	0.12	0.01	725
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	6.40	6.40	< 0.005	< 0.005	6.46
undefined	—	—	—	—	—	—	—	—	—	—	—	5,246	5,246	0.85	0.10	5,298
Total	—	—	—	—	—	—	—	—	—	—	—	5,970	5,970	0.97	0.12	6,029

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	119	119	0.02	< 0.005	120
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06	< 0.005	< 0.005	1.07
undefined	—	—	—	—	—	—	—	—	—	—	—	365	365	0.06	0.01	369
Total	—	—	—	—	—	—	—	—	—	—	—	485	485	0.08	0.01	490

### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	3,890	3,890	0.34	0.01	3,900
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	3,890	3,890	0.34	0.01	3,900
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	3,890	3,890	0.34	0.01	3,900

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.18	3.26	2.74	0.02	0.25	—	0.25	0.25	—	0.25	—	3,890	3,890	0.34	0.01	3,900
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	0.03	0.59	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	644	644	0.06	< 0.005	646
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.03	0.59	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	644	644	0.06	< 0.005	646

### 4.3. Area Emissions by Source

#### 4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Landscap e Equipmen t	1.44	0.07	8.74	< 0.005	0.02	—	0.02	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	36.1
Total	6.63	0.07	8.74	< 0.005	0.02	—	0.02	0.01	—	0.01	—	36.0	36.0	< 0.005	< 0.005	36.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipmen t	0.13	0.01	0.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.94	2.94	< 0.005	< 0.005	2.95
Total	1.08	0.01	0.79	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.94	2.94	< 0.005	< 0.005	2.95

#### 4.4. Water Emissions by Land Use

##### 4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	597	686	1,282	61.3	1.47	3,252
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	98.8	113	212	10.1	0.24	538
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	98.8	113	212	10.1	0.24	538

## 4.5. Waste Emissions by Land Use

### 4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	2,307	0.00	2,307	231	0.00	8,071
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	1,336

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	1,336

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Heavy Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.66
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.66

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Forklifts	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Forklifts	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Forklifts	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	0.00

#### 4.8. Stationary Emissions By Equipment Type

##### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type

##### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/3/2024	8/9/2024	5.00	50.0	—
Grading	Grading	8/12/2024	11/15/2024	5.00	70.0	—
Building Construction	Building Construction	11/18/2024	9/17/2027	5.00	740	—
Paving	Paving	9/20/2027	11/26/2027	5.00	50.0	—
Architectural Coating	Architectural Coating	11/29/2027	2/4/2028	5.00	50.0	—

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 2	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 2	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 2	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 2	1.00	8.00	367	0.40

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Building Construction	Forklifts	Diesel	Tier 2	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 2	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 2	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 2	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 2	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 2	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 2	1.00	6.00	37.0	0.48

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	4.00	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	84.4	7.70	LDA,LDT1,LDT2

Building Construction	Vendor	33.0	4.00	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	4.00	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	16.9	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	301,574	100,525	244,372

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	75.0	0.00	—
Grading	—	—	210	0.00	—
Paving	0.00	0.00	0.00	0.00	93.5

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%
Other Non-Asphalt Surfaces	93.2	0%
Parking Lot	0.30	100%

## 5.8. Construction Electricity Consumption and Emissions Factors

### kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005
2028	0.00	204	0.03	< 0.005

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Heavy Industry	201	201	201	73,383	8,042	8,042	8,042	2,935,315
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

#### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	301,574	100,525	244,372

#### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

### 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

#### Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Heavy Industry	1,285,272	204	0.0330	0.0040	12,136,607
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00
Parking Lot	11,448	204	0.0330	0.0040	0.00

### 5.12. Operational Water and Wastewater Consumption

#### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Heavy Industry	311,400,000	0.00
Other Non-Asphalt Surfaces	0.00	0.00
Parking Lot	0.00	0.00

### 5.13. Operational Waste Generation

#### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Heavy Industry	4,280	—
Other Non-Asphalt Surfaces	0.00	—
Parking Lot	0.00	—

### 5.14. Operational Refrigeration and Air Conditioning Equipment

#### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
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General Heavy Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
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## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Other Material Handling Equipment	Electric	Average	3.00	18.0	64.0	0.80
Other Material Handling Equipment	Electric	Average	2.00	18.0	6.00	0.80
Other Material Handling Equipment	Electric	Average	10.0	18.0	45.3	0.80
Other General Industrial Equipment	Electric	Average	10.0	18.0	53.0	0.80
Forklifts	Electric	Average	10.0	18.0	82.0	0.20
Skid Steer Loaders	Electric	Average	10.0	18.0	71.0	0.37
Rubber Tired Loaders	Electric	Average	10.0	18.0	150	0.36

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined



Equipment Type	Fuel Type
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## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Construction of the proposed project is expected to occur intermittently in four phases over a period of approximately 44 months starting in 2024. To be conservative, this analysis assumes an overall 44-month schedule.
Construction: Off-Road Equipment	Assuming the use of Tier 2 construction equipment.
Operations: Vehicle Data	The proposed project would include 190 raw material hauling trucks and 12 dry waste hauling trucks
Operations: Fleet Mix	Fleet mix was revised to reflect all hauling trips (100% HHDT)

Operations: Energy Use	Daily Electrical and natural gas demand for these phases is based on in Table 3.A of the Project Description (assuming the equipment uses would be not subject to Title 24).
Operations: Off-Road Equipment	<p>The project will include the following equipment:</p> <ul style="list-style-type: none"> <li>- 3 Forsburgs Gravity Deck, each consisting of a 1 HP motor, a 3 HP motor and a 60 HP motor with a 0.8-load factor. The main power used in the operation of these units is electricity.</li> <li>- 2 LMC Scalpers, each consisting of a 1 HP motor and a 5 HP motor with a 0.8-load factor. The main power used in the operation of these units is electricity.</li> <li>- 10 Magnuson Peeler machines, each consisting of a 0.75 HP motor, a 2 HP motor, a 7.5 HP motor, a 15 HP motor and a 20 HP motor with a 0,8-load factor. The main power used in the operation of these units is electricity.</li> <li>- 10 Sukup Dryers, each consisting of a 1HP motor, a 2 HP motor, a 10 HP motor, and a 4x40 HP motor with a 0.8 load factor. These unit will run off natural gas and electricity (this analysis is assuming electric as CalEEMod doesn't provide default emission factors for CNG). The harvest season is 45 days long and which time the machinery would be running 8 hours a day for a total of 810 hours.</li> </ul> <p>Also assuming 10 forklifts, 10 skid steer loaders, and 10 rubber tired loaders.</p>
Land Use	The project site is 98 acres in size. Assuming that all areas not covered by buildings or the parking lot would be paved as no landscaping is proposed for the project site.
Operations: Solid Waste	It is estimated that the project site would produce approximately 8,562,667 pounds of solid waste.
Operations: Water and Waste Water	The proposed project would generate approximately 311.4 million gallons of wastewater annually.

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## APPENDIX C

### PRIORITIZATION CALCULATOR

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Receptor Proximity and Proximity Factors		1-0 p1	1-0 p1	1-0 p1	1-0 p1	Total Max Score
		Max Score	Max Score	Max Score	Max Score	
<b>0 &lt; R &lt; 100</b>	<b>1.000</b>	3.86E+01	0.00E+00	0.00E+00	0.00E+00	3.86E+01
<b>100 ≤ R &lt; 250</b>	<b>0.250</b>	9.65E+00	0.00E+00	0.00E+00	0.00E+00	9.65E+00
<b>250 ≤ R &lt; 500</b>	<b>0.040</b>	1.54E+00	0.00E+00	0.00E+00	0.00E+00	1.54E+00
<b>500 ≤ R &lt; 1000</b>	<b>0.011</b>	4.25E-01	0.00E+00	0.00E+00	0.00E+00	4.25E-01
<b>1000 ≤ R &lt; 1500</b>	<b>0.003</b>	1.16E-01	0.00E+00	0.00E+00	0.00E+00	1.16E-01
<b>1500 ≤ R &lt; 2000</b>	<b>0.002</b>	7.72E-02	0.00E+00	0.00E+00	0.00E+00	7.72E-02
<b>2000 &lt; R</b>	<b>0.001</b>	3.86E-02	0.00E+00	0.00E+00	0.00E+00	3.86E-02

CAS	Substance	URF	Acute	Chronic	Molecular Weight Correction
1000	Aflatoxins				1.00
1005	Analgesic mixtures containing phenacetin				1.00
1010	Androgenic (anabolic) steroids				1.00
1016	Arsenic compounds (inorganic)	0.0033	0.2	0.015	1.00
1017	Arsenic compounds (other than inorganic)				1.00
1020	Benzidine-based dyes	0.14			1.00
1025	Betel quid with tobacco				1.00
1030	Bitumens, extracts of steam-refined and air-refined bitumens				1.00
1035	Bleomycins				1.00
1050	Carbon black extract				1.00
1055	Carrageenan (degraded)				1.00
1056	Ceramic fibers (man-made)				1.00
1058	Chlorobenzenes				1.00
1059	p-Chloro-o-toluidine				1.00
1060	Chlorophenols				1.00
1065	Chlorophenoxy herbicides				1.00
1066	Coke Oven Emissions				1.00
1068	Conjugated estrogens				1.00
1070	Creosotes				1.00
1073	Cyanide compounds		340	9	1.00
1075	Dialkylnitrosamines				1.00
1078	Diaminotoluenes (mixed isomers)				1.00
1080	Dibenzofurans (chlorinated) {PCDFs} [Treated as 2378TCDD for HRA]	38		0.00004	1.00
1085	Dioxins, total, with individ. isomers also reported {PCDDs}				1.00
1086	Dioxins, total, w/o individ. isomers reported {PCDDs} [Treat as 2378TCDD for HRA]	38		0.00004	1.00
1090	Environmental Tobacco Smoke				1.00
1091	Epoxy resins				1.00
1095	Estrogens, non-steroidal				1.00
1100	Estrogens, steroidal				1.00
1101	Fluorides and compounds		240	13	1.00
1103	Fluorocarbons (brominated)				1.00
1104	Fluorocarbons (chlorinated)				1.00
1110	Gasoline vapors				1.00
1111	Glasswool (man-made fibers)				1.00
1115	Glycol ethers (and their acetates)				1.00
1125	Isocyanates				1.00
1128	Lead compounds (inorganic)	0.000012			1.00
1129	Lead compounds (other than inorganic)				1.00
1131	Lubricant base oils				1.00
1135	Mineral fibers (other than man-made)				1.00
1136	Mineral fibers (fine: man-made)				1.00
1140	Mineral oils (untreated and mildly treated oils)				1.00
1141	Modified Hydrogen fluoride {MHF}		240	14	1.0000
1146	Nickel refinery dust	0.00026	0.2	0.014	1.00
1148	Nitrilotriacetic acid (salts)				1.00
1150	PAHs, total, with individ. components also reported				1.00
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	0.0011			1.00
1155	Polybrominated biphenyls				1.00
1160	Progestins				1.00
1165	Radionuclides				1.00
1166	Radon and its decay				1.00
1167	Retinol/retinyl este				1.00
1168	Rockwool (man-made fibers)				1.00
1175	Silica, crystalline			3	1.00
1180	Shale oils				1.00
1181	Slagwool (man-made fibers)				1.00
1185	Soots				1.00
1190	Talc containing asbestiform fibers				1.00
1200	Tobacco products, smokeless				1.00
1205	alpha-chlorinated Toluenes				1.00
1206	Wood preservatives (containing arsenic and chromate)				1.00
1216	Cobalt compounds, insoluble	0.0077			1.00
1217	Cobalt sulfate and other soluble cobalt compounds	0.00086			1.00
1221	Polymeric (Oligo) HDI		4.5	0.4	1.00
1226	Diisocyanurate		4.5	0.4	1.00
1227	HDI Prepolymer		4.5	0.4	1.00
1228	Isocyanurate		4.5	0.4	1.00
2222	Polybrominated diphenyl ethers {PBDEs}				1.00
9901	Diesel engine exhaust, particulate matter (Diesel PM)	0.0003		5	1.00
9902	Diesel engine exhaust, total organic gas				1.00
9910	Gasoline engine exhaust, particulate matter				1.00
9911	Gasoline engine exhaust, total organic gas				1.00
9960	Sulfates		120		1.00
9961	Sulfuric Acid + Oleum				1.00
11101	Particulate Matter				1.00
16113	Reactive Organic Gas				1.00
42101	Carbon Monoxide [Criteria Pollutant]				1.00
42401	Oxides of sulfur				1.00
42603	Oxides of Nitrogen				1.00
43101	Total Organic Gases				1.00

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43104 Volatile Organic Compounds (VOC)				1.00
50000 Formaldehyde	0.000006	55	9	1.00
50066 Phenobarbital				1.00
50077 Mitomycin C				1.00
50180 Cyclophosphamide				1.00
50282 Estradiol 17 beta				1.00
50293 DDT {1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane}				1.00
50328 Benzo[a]pyrene	0.0011			1.00
50351 Thalidomide				1.00
50419 Clomiphene citrate				1.00
50555 Reserpine				1.00
50760 Actinomycin D				1.00
50782 Aspirin				1.00
51218 Fluorouracil				1.00
51285 2,4-Dinitrophenol				1.00
51525 Propylthiouracil				1.00
51752 Nitrogen mustard				1.00
51796 Urethane	0.00029			1.00
52244 Tris(1-aziridinyl) phosphine sulfide				1.00
52675 Penicillamine				1.00
52686 Trichlorfon				1.00
53167 Estrone				1.00
53703 Dibenz[a,h]anthracene	0.0012			1.00
53963 2-Acetylaminofluorene				1.00
54115 Nicotine				1.00
54626 Aminopterin				1.00
54911 Pipobroman				1.00
55185 N-Nitrosodiethylamine	0.01			1.00
55210 Benzamide				1.00
55630 Nitroglycerin				1.00
55867 Nitrogen mustard hydrochloride				1.00
55981 1,4-Butanediol dimethanesulfonate				1.00
56042 Methylthiouracil				1.00
56235 Carbon tetrachloride	0.000042	1900	40	1.00
56382 Parathion				1.00
56495 3-Methylcholanthrene	0.0063			1.00
56531 Diethylstilbestrol				1.00
56553 Benz[a]anthracene	0.00011			1.00
56757 Chloramphenicol				1.00
57125 Cyanide Compounds (Inorganic)		340	9	1.00
57147 1,1-Dimethylhydrazine				1.00
57330 Pentobarbital sodium				1.00
57410 Phenytoin				1.00
57578 beta-Propiolactone				1.00
57636 Ethinyl estradiol				1.00
57749 Chlordane				1.00
57830 Progesterone				1.00
57976 7,12-Dimethylbenz[a]anthracene	0.071			1.00
58184 Methyltestosterone				1.00
58220 Testosterone and its esters				1.00
58899 Lindane {gamma-Hexachlorocyclohexane}	0.00031			1.00
58902 2,3,4,6-Tetrachlorophenol				1.00
59052 Methotrexate				1.00
59870 Nitrofurazone				1.00
59892 N-Nitrosomorpholine	0.0019			1.00
59961 Phenoxybenzamine				1.00
60093 p-Aminoazobenzene				1.00
60117 4-Dimethylaminoazobenzene	0.0013			1.00
60344 Methyl hydrazine				1.00
60355 Acetamide	0.00002			1.00
60560 Methimazole				1.00
60571 Dieldrin				1.00
61574 Niridazole				1.00
61825 Amitrole				1.00
62442 Phenacetin				1.00
62500 Ethyl methanesulfonate				1.00
62533 Aniline	0.0000016			1.00
62555 Thioacetamide	0.0017			1.00
62566 Thiourea				1.00
62737 Dichlorovos {DDVP}				1.00
62759 N-Nitrosodimethylamine	0.0046			1.00
63252 Carbaryl				1.00
63923 Phenoxybenzimidazole hydrochloride				1.00
63989 Phenacetamide				1.00
64675 Diethyl sulfate				1.00
64755 Tetracycline hydrochloride				1.00
66273 Methyl methanesulfonate				1.00
66751 Uracil mustard				1.00
66819 Cycloheximide				1.00
67209 Nitrofurantoin				1.00
67458 Furazolidone				1.00
67561 Methanol		28000	4000	1.00
67630 Isopropyl alcohol		3200	7000	1.00

67663 Chloroform	0.000053	150	300	1.00
67721 Hexachloroethane				1.00
68122 Dimethyl formamide			80	1.00
68224 Norethisterone				1.00
68768 Tris(aziridiny)-p-benzoquinone				1.00
70257 N-Methyl-N'-nitro-N-nitrosoguanidine				1.00
71363 n-Butyl alcohol				1.00
71432 Benzene	0.000029	27	3	1.00
71487 Cobalt acetate (tetrahydrate)*	0.00086			0.3331
71556 Methyl chloroform {1,1,1-Trichloroethane}		68000	1000	1.00
71589 Medroxyprogesterone				1.00
72333 Mestranol				1.00
72435 Methoxychlor				1.00
72548 Dichlorodiphenyldichloroethane {DDD}				1.00
72559 Dichlorodiphenyldichloroethylene {DDE}				1.00
72571 Trypan blue				1.00
74828 Methane				1.00
74839 Methyl bromide {Bromomethane}		3900	5	1.00
74851 Ethylene				1.00
74873 Methyl chloride {Chloromethane}				1.00
74884 Methyl iodide {Iodomethane}				1.00
74908 Hydrogen Cyanide		340	9	1.00
74953 Methylene bromide				1.00
75003 Ethyl chloride {Chloroethane}			30000	1.00
75014 Vinyl chloride	0.000078	180000		1.00
75025 Vinyl fluoride				1.00
75058 Acetonitrile				1.00
75070 Acetaldehyde	0.0000027	470	140	1.00
75092 Methylene chloride {Dichloromethane}	0.000001	14000	400	1.00
75150 Carbon disulfide		6200	800	1.00
75218 Ethylene oxide	0.000088		30	1.00
75252 Bromoform				1.00
75274 Bromodichloromethane				1.00
75343 1,1-Dichloroethane	0.0000016			1.00
75354 Vinylidene chloride			70	1.00
75376 1,1-Difluoroethane {Freon 152a}				1.00
75434 Dichlorofluoromethane {Freon 21}				1.00
75445 Phosgene		4		1.00
75456 Chlorodifluoromethane {Freon 22}				1.00
75467 Trifluoromethane {Freon 23}				1.00
75558 2-Methylaziridine				1.00
75569 Propylene oxide	0.0000037	3100	30	1.00
75650 tert-Butyl alcohol				1.00
75694 Trichlorofluoromethane {Freon 11}				1.00
75718 Dichlorodifluoromethane (Freon 12)	0	0	0	1.00
75730 Carbon tetrafluoride				1.00
75865 2-Methylacetonitrile				1.00
76062 Chloropicrin		29	0.4	1.00
76131 Chlorinated Fluorocarbon {CFC-113} {1,1,2-Trichloro-1,2,2-trifluoroethane}				1.00
76437 Fluoxymesterone				1.00
76448 Heptachlor				1.00
77474 Hexachlorocyclopentadiene				1.00
77781 Dimethyl sulfate				1.00
78308 Triorthocresyl phosphate				1.00
78400 Triethyl phosphine				1.00
78591 Isophorone			2000	1.00
78795 Isoprene, except from vegetative emission sources				1.00
78842 Isobutyraldehyde				1.00
78875 1,2-Dichloropropane				1.00
78886 2,3-Dichloropropene				1.00
78922 sec-Butyl alcohol				1.00
78933 Methyl ethyl ketone		13000		1.00
79005 1,1,2-Trichloroethane	0.000016			1.00
79016 Trichloroethylene	0.000002		600	1.00
79061 Acrylamide	0.0013			1.00
79107 Acrylic acid		6000		1.00
79118 Chloroacetic acid				1.00
79210 Peracetic acid				1.00
79345 1,1,2,2-Tetrachloroethane	0.000058			1.00
79447 Dimethyl carbamoyl chloride				1.00
79469 2-Nitropropane				1.00
79572 Oxytetracycline				1.00
80057 4,4'-Isopropylidenediphenol				1.00
80159 Cumene hydroperoxide				1.00
80626 Methyl methacrylate				1.00
81072 Saccharin				1.00
81812 Warfarin				1.00
81889 D and C Red No. 19				1.00
82280 1-Amino-2-methylantraquinone				1.00
82688 Pentachloronitrobenzene {Quintobenzene}				1.00
83329 Acenaphthene				1.00
84173 Dienestrol				1.00
84662 Diethyl phthalate				1.00

84742 Dibutyl phthalate				1.00
85018 Phenanthrene				1.00
85101 Particulate Matter 1				1.00
85449 Phthalic anhydride			20	1.00
85687 Butyl benzyl phthalate				1.00
86306 N-Nitrosodiphenylamine	0.0000026			1.00
86737 Fluorene				1.00
87296 Cinnamyl anthranilate				1.00
87627 2,6-Xylidene				1.00
87683 Hexachlorobutadiene				1.00
87865 Pentachlorophenol	0.0000051			1.00
88062 2,4,6-Trichlorophenol	0.00002			1.00
88101 Particulate Matter 2.5 Microns or less				1.00
88755 2-Nitrophenol				1.00
88857 Dinoseb				1.00
88891 Picric acid				1.00
90040 O-Anisidine				1.00
90437 2-Phenylphenol				1.00
90948 Michler's ketone	0.00025			1.00
91087 Toluene-2,6-diisocyanate	0.000011	2	0.008	1.00
91203 Naphthalene	0.000034		9	1.00
91225 Quinoline				1.00
91576 2-Methyl naphthalene				1.00
91598 2-Naphthylamine				1.00
91941 3,3'-Dichlorobenzidine	0.00034			1.00
92524 Biphenyl				1.00
92671 4-Aminobiphenyl				1.00
92875 Benzidine (and its salts)	0.14			1.00
92933 4-Nitrobiphenyl				1.00
94360 Benzoyl peroxide				1.00
94586 Dihydrosafrole				1.00
94597 Safrole				1.00
94757 Dichlorophenoxyacetic acid, salts and esters {2,4-D}				1.00
94780 Phenazopyridine hydrochloride				1.00
95067 Sulfallate				1.00
95476 o-Xylene		22000	700	1.00
95487 o-Cresol			600	1.00
95501 1,2-Dichlorobenzene				1.00
95534 o-Toluidine				1.00
95578 2-Chlorophenol				1.00
95636 1,2,4-Trimethylbenze				1.00
95692 p-Chloro-o-toluidine	0.000077			1.00
95807 2,4-Diaminotoluene	0.0011			1.00
95830 4-Chloro-o-phenylenediamine	0.0000046			1.00
95954 2,4,5-Trichlorophenol				1.00
96093 Styrene oxide				1.00
96128 1,2-Dibromo-3-chloropropane	0.002			1.00
96139 2,3-Dibromo-1-propanol				1.00
96184 1,2,3-Trichloropropane				1.00
96333 Methyl acrylate				1.00
96457 Ethylene thiourea	0.000013			1.00
97563 o-Aminoazotoluene				1.00
98077 Benzoic trichloride				1.00
98566 1-Chloro-4-(trifluoromethyl)benzene [PCBTF]	0.0000086			1.00
98828 Cumene				1.00
98862 Acetophenone				1.00
98873 Benzal chloride				1.00
98884 Benzoyl chloride				1.00
98953 Nitrobenzene				1.00
99592 5-Nitro-o-anisidine				1.00
99650 m-Dinitrobenzene				1.00
99661 Valproate				1.00
100027 4-Nitrophenol				1.00
100210 Terephthalic acid				1.00
100254 p-Dinitrobenzene				1.00
100403 4-Vinylcyclohexene				1.00
100414 Ethyl benzene	0.0000025		2000	1.00
100425 Styrene		21000	900	1.00
100447 Benzyl chloride	0.000049	240		1.00
100754 N-Nitrosopiperidine	0.0027			1.00
101020 Triphenyl phosphite				1.00
101144 4,4'-Methylene bis(2 Chloroaniline) (MOCA)	0.00043			1.00
101611 4,4'-Methylene bis (N,N-dimethyl) benzenamine				1.00
101688 Methylene diphenyl diisocyanate {MDI}		12	0.08	1.00
101779 4,4'-Methylenedianiline	0.00046		20	1.00
101804 4,4'-Diaminodiphenyl ether				1.00
101906 Diglycidyl resorcinol ether {DGRE}				1.00
103231 Bis(2-ethylhexyl) adipate				1.00
103333 Azobenzene				1.00
104949 p-Anisidine				1.00
105602 Caprolactam		50	2.2	1.00
105679 2,4-Dimethylphenol {2,4-Xylenol}				1.00
106423 p-Xylene		22000	700	1.00

106445	p-Cresol			600	1.00
106467	p-Dichlorobenzene	0.000011		800	1.00
106478	p-Chloroaniline				1.00
106490	p-Toluidine				1.00
106503	p-Phenylenediamine				1.00
106514	Quinone				1.00
106876	4-Vinyl-1-cyclohexene diepoxide				1.00
106887	1,2-Epoxybutane			20	1.00
106898	Epichlorohydrin	0.000023	1300	3	1.00
106934	Ethylene dibromide {EDB}	0.000071		0.8	1.00
106990	1,3-Butadiene	0.00017	660	2	1.00
107028	Acrolein		2.5	0.35	1.00
107051	Allyl chloride	0.000006			1.00
107062	Ethylene dichloride {EDC}	0.000021		400	1.00
107131	Acrylonitrile	0.00029		5	1.00
107186	Allyl alcohol				1.00
107211	Ethylene glycol			400	1.00
107302	Chloromethyl methyl ether (technical grade)				1.00
107982	Propylene glycol monomethyl ether			7000	1.00
108054	Vinyl acetate			200	1.00
108101	Methyl isobutyl ketone {Hexone}				1.00
108190	Biuret		4.5	0.4	1.00
108316	Maleic anhydride			0.7	1.00
108383	m-Xylene		22000	700	1.00
108394	m-Cresol			600	1.00
108601	Bis(2-chloro-1-methylethyl) ether				1.00
108656	Propylene glycol monomethyl ether acetate				1.00
108883	Toluene		5000	420	1.00
108907	Chlorobenzene			1000	1.00
108930	Cyclohexanol				1.00
108952	Phenol		5800	200	1.00
109068	2-Methylpyridine				1.00
109864	Ethylene glycol monomethyl ether		93	60	1.00
110009	Furan				1.00
110496	Ethylene glycol monomethyl ether acetate			90	1.00
110543	Hexane			7000	1.00
110714	Ethylene glycol dimethyl ether				1.00
110805	Ethylene glycol monoethyl ether		370	70	1.00
110827	Cyclohexane				1.00
110861	Pyridine				1.00
111159	Ethylene glycol monoethyl ether acetate		140	300	1.00
111308	Glutaraldehyde			0.08	1.00
111422	Diethanolamine			3	1.00
111444	Bis(2-chloroethyl) ether {DCEE}	0.00071			1.00
111466	Diethylene glycol				1.00
111762	Ethylene glycol monobutyl ether		4700	82	1.00
111773	Diethylene glycol monomethyl ether				1.00
111900	Diethylene glycol monoethyl ether				1.00
111966	Diethylene glycol dimethyl ether				1.00
112345	Diethylene glycol monobutyl ether				1.00
112492	Triethylene glycol dimethyl ether				1.00
114261	Propoxur				1.00
115026	Azaserine				1.00
115071	Propylene			3000	1.00
115286	Chlorendic acid				1.00
115322	Dicofol				1.00
115673	Paramethadione				1.00
115866	Triphenyl phosphate				1.00
117793	2-Aminoanthraquinone	0.0000094			1.00
117817	Di(2-ethylhexyl) phthalate	0.0000024			1.00
117840	n-Dioctyl phthalate				1.00
118741	Hexachlorobenzene	0.00051			1.00
119904	3,3'-Dimethoxybenzidine				1.00
119937	3,3'-Dimethylbenzidine {o-Tolidine}				1.00
120127	Anthracene				1.00
120581	Isosafrole				1.00
120718	p-Cresidine	0.000043			1.00
120809	Catechol				1.00
120821	1,2,4-Trichlorobenzene				1.00
120832	2,4-Dichlorophenol				1.00
121142	2,4-Dinitrotoluene	0.000089			1.00
121448	Triethylamine		2800	200	1.00
121697	N,N-Dimethylaniline				1.00
122601	Phenyl glycidyl ether				1.00
122667	1,2-Diphenylhydrazine {Hydrazobenzene}				1.00
123319	Hydroquinone				1.00
123386	Propionaldehyde				1.00
123728	Butyraldehyde				1.00
123911	1,4-Dioxane	0.0000077	3000	3000	1.00
124403	Dimethylamine	0	0	0	1.00
124481	Chlorodibromomethane				1.00
125848	Aminoglutethimide				1.00
126078	Griseofulvin				1.00



126727	Tris(2,3-dibromopropyl)phosphate				1.00
126738	Tributyl phosphate				1.00
126998	Chloroprene				1.00
127184	Perchloroethylene {Tetrachloroethene}	0.0000061	20000	35	1.00
127480	Trimethadione				1.00
128449	Sodium saccharin				1.00
129000	Pyrene				1.00
129157	2-Methyl-1-nitroanthraquinone (uncertain purity)				1.00
131113	Dimethyl phthalate				1.00
132274	Sodium o-phenylphenate				1.00
132649	Dibenzofuran				1.00
133062	Captan				1.00
133073	Folpet				1.00
133904	Chloramben				1.00
134292	o-Anisidine hydrochloride				1.00
134327	1-Naphthylamine				1.00
135206	Cupferron	0.000063			0.17
136527	Cobalt octoate	0.00086			0.1708
139139	Nitrilotriacetic acid				1.00
139651	4,4'-Thiodianiline				1.00
139913	5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone				1.00
140578	Aramite				1.00
140885	Ethyl acrylate				0.49
141004	Cadmium succinate	0.0042		0.02	0.4921
141322	Butyl acrylate				1.00
142041	Aniline hydrochloride	1.60E-06			1.00
143339	Sodium cyanide		340	9	1.00
143500	Chlordecone {Kepone}				1.00
143679	Vinblastine sulfate				1.00
147944	Cytarabine				1.00
148823	Melphalan				1.00
151508	Potassium cyanide		340	9	1.00
151564	Ethyleneimine {Aziridine}				1.00
154427	Thioguanine				1.00
154938	Bischloroethyl nitrosourea				1.00
156105	p-Nitrosodiphenylamine	0.0000063			1.00
156627	Calcium cyanamide				1.00
189559	Dibenzo[a,i]pyrene	0.011			1.00
189640	Dibenzo[a,h]pyrene	0.011			1.00
191242	Benzo[g,h,i]perylene				1.00
191300	Dibenzo[a,l]pyrene	0.011			1.00
192654	Dibenzo[a,e]pyrene	0.0011			1.00
192972	Benzo[e]pyrene				1.00
193395	Indeno[1,2,3-cd]pyrene	0.00011			1.00
194592	7H-Dibenzo[c,g]carbazole	0.0011			1.00
198550	Perylene				1.00
205823	Benzo[j]fluoranthene	0.00011			1.00
205992	Benzo[b]fluoranthene	0.00011			1.00
206440	Fluoranthene				1.00
207089	Benzo[k]fluoranthene	0.00011			1.00
208968	Acenaphthylene				1.00
218019	Chrysene	0.000011			1.00
224420	Dibenz[a,j]acridine	0.00011			1.00
226368	Dibenz[a,h]acridine	0.00011			1.00
271896	Benzo[f]uran				1.00
299752	Treosulfan				1.00
301042	Lead acetate	0.000012			0.6370
302012	Hydrazine	0.0049		0.2	1.00
302705	Nitrogen mustard N-oxide				1.00
302794	all-trans-Retinoic acid				1.00
303344	Lasiocarpine				1.00
303479	Ochratoxin A				1.00
305033	Chlorambucil				1.00
309002	Aldrin				1.00
315220	Monocrotaline				1.00
315377	Testosterone enanthate				1.00
319846	alpha-Hexachlorocyclohexane	0.0011			1.00
319857	beta-Hexachlorocyclohexane	0.0011			1.00
334883	Diazomethane				1.00
366701	Procarbazine hydrochloride				1.00
373024	Nickel acetate	0.00026	0.2	0.014	0.3321
379793	Ergotamine tartrate				1.00
434071	Oxymetholone				1.00
443481	Metronidazole				1.00
446866	Azathioprine				1.00
463581	Carbonyl sulfide		660	10	1.00
474259	Chenodiol				1.00
484208	5-Methoxypsoralen				1.00
492808	Auramine				1.00
494031	N-N-Bis(2-chloroethyl)-2-naphthylamine {Chlornaphazine}				1.00
505602	Mustard gas				1.00
509148	Tetranitromethane				1.00
510156	Chlorobenzilate				1.00

512561 Trimethyl phosphate				1.00
513371 Dimethylvinylchloride {DMVC}				0.50
513791 Cobalt carbonate	0.0077			0.4955
528290 o-Dinitrobenzene				1.00
531760 Merphalan				1.00
531828 N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide				1.00
532274 2-Chloroacetophenone				1.00
534521 4,6-Dinitro-o-cresol				1.00
540590 1,2-Dichloroethylene				1.00
540738 1,2-Dimethylhydrazine				1.00
540841 2,2,4-Trimethylpentane				1.00
540885 t-Butyl acetate	1.30E-06			1.00
541413 Ethyl chloroformate				1.00
541731 1,3-Dichlorobenzene				1.00
542756 1,3-Dichloropropene				1.00
542881 Bis(chloromethyl) ether	0.013			1.00
546883 Acetohydroxamic acid				1.00
554132 Lithium carbonate				1.00
555840 1-[(5-Nitrofurfurylidene)amino]-2-imidazolidinone				1.00
556525 Glycidol				1.00
563473 3-Chloro-2-methylpropene				1.00
564250 Doxycycline				1.00
569619 C. I. Basic Red 9 monohydrochloride				1.00
569642 C. I. Basic Green 4				1.00
584849 Toluene-2,4-diisocyanate	0.000011	2	0.008	1.00
590965 Methylazoxymethanol				1.00
592018 Calcium cyanide		340	9	1.00
592621 Methylazoxymethanol acetate				1.00
593602 Vinyl bromide				1.00
593748 Methyl mercury				1.00
595335 Megestrol acetate				1.00
602879 5-Nitroacenaphthene	0.000037			1.00
606202 2,6-Dinitrotoluene				1.00
607578 2-Nitrofluorene	0.000011			1.00
608731 Hexachlorocyclohexanes (mixed or technical grade)	0.0011			1.00
612828 3,3'-Dimethylbenzidine dihydrochloride	0.14			1.00
613354 N,N'-Diacetylbenzidine				1.00
615054 2,4-Diaminoanisole	0.0000066			1.00
615532 N-Nitroso-N-methylurethane				1.00
621647 N-Nitrosodi-n-propylamine	0.002			1.00
624839 Methyl isocyanate			1	1.00
629141 Ethylene glycol diethyl ether				1.00
630080 Carbon monoxide		23000		1.00
630933 Diphenylhydantoin				1.00
636215 o-Toluidine hydrochloride				1.00
680319 Hexamethylphosphoramide				1.00
684935 N-Nitroso-N-methylurea				1.00
712685 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole				1.00
759739 N-Nitroso-N-ethylurea				1.00
764410 1,4-Dichloro-2-butene				1.00
765344 Glycidaldehyde				1.00
794934 Panfuran S				1.00
811972 1,1,1,2-Tetrafluoroethane {HFC-134a}				0.3957
814891 Cobalt oxalate	0.0077			0.3957
822060 Hexamethylene-1,6-diisocyanate		0.3	0.03	1.00
838880 4,4'-Methylene bis(2-methylaniline)				1.00
846491 Lorazepam				1.00
846504 Temazepam				1.00
919164 Lithium citrate				1.00
924163 N-Nitrosodi-n-butylamine	0.0031			1.00
924425 N-Methyloacrylamide				1.00
930552 N-Nitrosopyrrolidine	0.0006			1.00
961115 Tetrachlorvinphos				1.00
989388 C. I. Basic Red 1				1.00
1024573 Heptachlor epoxide				1.00
1116547 N-Nitrosodiethanolamine				1.00
1120714 1,3-Propane sultone	0.00069			1.00
1163195 Decabromodiphenyl oxide				0.2258
1189851 tert-Butyl chromate(VI)	0.15		0.2	0.2258
1271289 Nickelocene	0.00026	0.2	0.014	0.494
1303000 Gallium arsenide	0.0033	0.2	0.015	0.5180
1303282 Arsenic pentoxide	0.0033	0.2	0.015	0.6519
1304569 Beryllium oxide	0.0024		0.007	0.3600
1307966 Cobalt [II] oxide	0.0077			0.7865
1308061 Cobalt [III] oxide	0.0077			0.7342
1309644 Antimony trioxide				1.00
1310732 Sodium hydroxide		8		1.00
1313275 Molybdenum trioxide				0.7859
1313991 Nickel oxide	0.00026	0.2	0.02	0.7859
1314132 Zinc oxide				1.00
1314201 Thorium dioxide				1.00
1314563 Phosphorus pentoxide				1.00
1314621 Vanadium Pentoxide		30		0.6481



1317426 Cobalt sulfide	0.0077			0.6481
1319773 Cresols (mixtures of) {Cresylic acid}			600	1.00
1326416 2,4-Dinitrotoluene, sulfurized	0.000089			0.7574
1327533 Arsenic trioxide	0.0033	0.2	0.015	0.7574
1330207 Xylene		22000	700	1.00
1332214 Asbestos	0.00019			333.33
1333820 Chromium trioxide	0.15		0.002	0.5200
1335326 Lead subacetate	0.000012			0.7696
1335871 Hexachloronaphthalene				1.00
1336363 PCBs {Polychlorinated biphenyls}	0.00057			1.00
1344281 Aluminum oxide (fibrous)				1.00
1405103 Neomycin sulfate				1.00
1464535 Diepoxybutane				1.00
1582098 Trifluralin				1.00
1596845 Daminozide				1.00
1615801 1,2-Diethylhydrazine				1.00
1620219 Chlorcyclizine hydrochloride				1.00
1634044 Methyl tert-butyl ether	2.6E-07		8000	1.00
1689845 Bromoxynil				1.00
1694093 Benzyl violet 4B				1.00
1746016 2,3,7,8-Tetrachlorodibenzo-P-Dioxin	38		0.00004	1.00
1836755 Nitrofen (technical grade)				1.00
1897456 Chlorothalonil				1.00
1937377 Direct Black 38	0.14			1.00
2068782 Vincristine sulfate				1.00
2092560 D and C Red No. 8				1.00
2164172 Fluometuron				1.00
2234131 Octachloronaphthalene				1.00
2303164 Diallyate				1.00
2385855 Mirex				1.00
2425061 Captafol				1.00
2475458 Disperse Blue 1				1.00
2551624 Sulfur Hexafluoride				1.00
2602462 Direct Blue 6	0.14			1.00
2646175 Oil Orange SS				1.00
2784943 HC Blue 1				1.00
2795393 Perfluorooctanoic acid {PFOA} (and its salts, esters, and sulfonates)				1.00
2807309 Ethylene glycol monopropyl ether				1.00
2832408 C. I. Disperse Yellow 3				1.00
3068880 beta-Butyrolactone				1.00
3268879 1,2,3,4,6,7,8,9-Octachlorodibenzo-P-dioxin	0.011		0.13	1.0000
3333673 Nickel carbonate	0.00026	0.2	0.014	0.4945
3468631 D and C Orange No. 1				1.00
3546109 Phenesterin				1.00
3564098 Ponceau 3R				1.00
3570750 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole				1.00
3688537 AF-2				1.00
3697243 5-Methylchrysene	0.0011			1.00
3761533 Ponceau MX				1.00
3771195 Nafenopin				1.00
3778732 Ifosfamide				1.00
3810740 Streptomycin sulfate				1.00
3963959 Methacycline hydrochloride				1.00
4170303 Crotonaldehyde				1.00
4342034 Dacarbazine				1.00
4549400 N-Nitrosomethylvinylamine				1.00
4680788 C. I. Acid Green 3				1.00
4759482 Isotretinoin				1.00
5160021 D and C Red No. 9				1.00
5216251 p-alpha,alpha,alpha-Tetrachlorotoluene				1.00
5411223 Benzphetamine hydrochloride				1.00
5522430 1-Nitropyrene	0.00011			1.00
6109973 3-Amino-9-ethylcarbazole hydrochloride				1.00
6112761 Mercaptopurine				1.00
6164983 Chlordimeform				1.00
6358538 Citrus Red No. 2				1.00
6484522 Ammonium nitrate				1.00
6533002 Norgestrel				1.00
7429905 Aluminum				1.00
7439921 Lead	0.000012			1.00
7439965 Manganese			0.09	1.00
7439976 Mercury		0.6	0.03	1.00
7440020 Nickel	0.00026	0.2	0.014	1.00
7440224 Silver				1.00
7440280 Thallium				1.00
7440360 Antimony				1.00
7440382 Arsenic	0.0033	0.2	0.015	1.00
7440393 Barium				1.00
7440417 Beryllium	0.0024		0.007	1.00
7440439 Cadmium	0.0042		0.02	1.00
7440473 Chromium				1.00
7440484 Cobalt	0.0077			1.00
7440508 Copper		100		1.00

7440622 Vanadium (fume or dust)		30		1.00
7440666 Zinc				1.00
7446095 Sulfur Dioxide		660		0.7659
7446277 Lead phosphate	0.000012			0.7659
7446346 Selenium sulfide			20	1.00
7446719 Sulfur Trioxide		120	1	1.00
7487947 Mercuric chloride		0.6	0.03	1.00
7496028 6-Nitrochrysene	0.011			1.00
7550450 Titanium tetrachloride				1.00
7631869 Silica, crystalline			3	1.0000
7646799 Cobalt chloride (hexahydrate)	0.00086			0.4539
7647010 Hydrochloric acid		2100	9	1.00
7664382 Phosphoric acid			7	1.00
7664393 Hydrogen fluoride		240	14	1.00
7664417 Ammonia		3200	200	1.00
7664939 Sulfuric acid		120	1	1.00
7681494 Sodium Fluoride			14	0.4525
7697372 Nitric acid		86		1.00
7718549 Nickel Chloride	0.00026	0.2	0.014	0.4529
7719122 Phosphorus trichloride				1.00
7723140 Phosphorus				1.00
7726956 Bromine				1.00
7758012 Potassium bromate	0.00014			1.00
7758976 Lead chromate	0.15		0.2	0.1609
7778394 Arsenic acid	0.0033	0.2	0.015	0.5278
7778441 Calcium arsenate	0.0033	0.2	0.015	0.3766
7782492 Selenium			20	1.00
7782505 Chlorine		210	0.2	1.00
7783064 Hydrogen sulfide		42	10	1.00
7783075 Hydrogen Selenide		5		1.00
7783202 Ammonium sulfate				1.00
7783791 Selenium hexafluoride		240	14	0.5908
7784421 Arsine		0.2	0.015	1.00
7786814 Nickel sulfate	0.00026	0.2	0.014	0.3794
7787566 Beryllium sulfate (tetrahydrate)	0.0024		0.007	0.0508
7789062 Strontium chromate	0.15		0.2	0.2554
7789302 Bromine Pentafluoride				1.00
7803512 Phosphine			0.8	1.00
8001352 Toxaphene				1.00
8007452 Coal tars				1.00
8014957 Oleum		120		1.00
8018017 Mancozeb				1.00
9002680 Menotropins				1.00
9004664 Iron dextran complex				1.00
9006422 Metiram				1.00
10024972 Nitrous oxide				1.00
10025873 Phosphorus oxychloride				1.00
10026138 Phosphorus pentachloride				1.00
10026241 Cobalt sulfate (heptahydrate)	0.00086			0.3804
10028156 Ozone		180		1.00
10034932 Hydrazine sulfate				1.00
10035106 Hydrogen bromide				1.00
10048132 Sterigmatocystin				1.00
10049044 Chlorine dioxide			0.6	1.00
10102440 Nitrogen Dioxide		470		1.00
10108642 Cadmium chloride	0.0042		0.02	0.6132
10124433 Cobalt sulfate	3			0.3804
10141056 Cobalt nitrate (hexahydrate)	0.00086			0.3221
10210681 Cobalt carbonyl	0.0077			0.3448
10294403 Barium chromate	0.15		0.2	0.2053
10588019 Sodium dichromate	0.15		0.2	0.3970
10595956 N-Nitrosomethylethylamine	0.0063			1.00
12001284 Crocidolite	0.00019			333.33
12001295 Chrysotile	0.00019			333.33
12035722 Nickel subsulfide	0.00026	0.2	0.014	0.2443
12054487 Nickel hydroxide	0.00026	0.2	0.014	0.6332
12079651 Manganese cyclopentadienyl tricarbonyl			0.09	0.2694
12108133 2-Methylcyclopentadienyl manganese tricarbonyl			0.09	0.2521
12122677 Zineb				1.00
12172735 Amosite	0.00019			333.33
12427382 Maneb				1.00
12510428 Erionite				1.00
13010474 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea {CCNU}				1.00
13121705 Cyhexatin				1.00
13138459 Nickel nitrate {Nickel (II) nitrate}	0.00026	0.2	0.014	0.3213
13256229 N-Nitrososarcosine				1.00
13311847 Flutamide				1.00
13463393 Nickel carbonyl	0.00026	0.2	0.014	0.3438
13463406 Iron pentacarbonyl				1.00
13510491 Beryllium sulfate	0.0024		0.007	0.0857
13647353 Trilostane				1.00
13765190 Calcium chromate	0.15		0.2	0.3332
13909096 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea {Methyl CCNU}				1.00

14464461	Silica, crystalline (respirable), in the form of cristobalite			3	1.00
14808607	Silica, crystalline (respirable), in the form of quartz			3	1.00
14901087	Cycasin				1.00
15096523	Sodium aluminum fluoride			14	0.5429
15475566	Methotrexate sodium				1.00
15541454	Bromate	0.00014			0.6247
15663271	Cisplatin				1.00
15972608	Alachlor				1.00
16065831	Chromium (III)		0.48	0.06	1.00
16071866	Direct Brown 95 (technical grade)	0.14			1.00
16543558	N-Nitrosornicotine				1.00
16568028	Gyromitrin				1.00
16842038	Cobalt hydrocarbonyl	0.00086			0.3428
17230885	Danazol				1.00
18378897	Plicamycin				1.00
18540299	Chromium, hexavalent	0.15		0.2	1.00
18662538	Nitritotriacetic acid, trisodium salt monohydrate				1.00
18883664	Streptozotocin				1.00
19408743	1,2,3,7,8,9-Hexachlorodibenzo-P-dioxin	3.8		0.0004	1.00
20325400	3,3'-Dimethoxybenzidine dihydrochloride				1.00
20816120	Osmium tetroxide				1.00
20830813	Daunomycin				1.00
21041930	Cobalt hydroxide	0.0077			0.6341
21725462	Cyanazine				1.00
23092173	Halazepam				1.00
23214928	Adriamycin				1.00
23501817	Uretidione (HDI) {Uretidone}		4.5	0.4	1.00
23541506	Daunorubicin hydrochloride				1.00
24267569	Iodine-131				1.00
25013165	Butylated hydroxyanisole {BHA}				1.00
25154545	Dinitrobenzenes (mixtures of)				1.00
25167833	Tetrachlorophenols				1.00
25265718	Dipropylene glycol				1.00
25321146	Dinitrotoluenes (mixed isomers)				1.00
25321226	Dichlorobenzenes (mixed isomers)				1.00
25551137	Trimehtylbenzenes				1.00
26148685	A-alpha-C {2-Amino-9H-pyrido[2,3-b]indole}				1.00
26471625	Toluene Diisocyanate	0.000011	2	0.008	1.00
26995915	Urofollitropin				1.00
28407376	C.I. Direct Blue 218 [PAH-Derivative/Related, POM]	0.14			1.00
28434868	3,3'-Dichloro-4,4'-diaminodiphenyl ether				1.00
28911015	Triazolam				1.00
28981977	Alprazolam				1.00
30402154	Total Pentachlorodibenzofuran				1.00
31508006	2,3',4,4',5-PENTACHLOROBIPHENYL (PCB 118)	0.0011		1.3	1.00
32598133	3,3',4,4'-TETRACHLOROBIPHENYL (PCB77)	0.0038		0.4	1.00
32598144	2,3,3',4,4'-Pentachlorobiphenyl {PCB 105}	0.0011		1.3	1.00
32774166	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (PCB 169)	1.1		0.0013	1.00
33419420	Etoposide				1.00
34256821	Acetochlor				1.00
34465468	Total Hexachlorodibenzo-p-dioxin				1.00
34590948	Dipropylene glycol monomethyl ether				1.00
35822469	1,2,3,4,6,7,8-Heptachlorodibenzo-P-dioxin	0.38		0.004	1.00
36088229	Total Pentachlorodibenzo-p-dioxin				1.00
36791045	Ribavirin				1.00
37871004	Total Heptachlorodibenzo-p-dioxin				1.00
38380084	2,3,3',4,4',5-HEXACHLOROBIPHENYL (PCB 156)	0.0011		1.3	1.00
38998753	Total Heptachlorodibenzofuran				1.00
39001020	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	0.011		0.13	1.00
39156417	2,4-Diaminoanisole sulfate				1.00
39227286	1,2,3,4,7,8-Hexachlorodibenzo-P-dioxin	3.8		0.0004	1.00
39300453	Dinocap				1.00
39635319	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (PCB 189)	0.0011		1.3	1.00
39831555	Amikacin sulfate				1.00
40321764	1,2,3,7,8-Pentachlorodibenzo-P-dioxin	38		0.00004	1.00
41575944	Carboplatin				1.00
41903575	Total Tetrachlorodibenzo-p-dioxin				1.00
42397648	1,6-Dinitropyrene	0.011			1.00
42397659	1,8-Dinitropyrene	0.0011			1.00
49842071	Tobramycin sulfate				1.00
51207319	2,3,7,8-Tetrachlorodibenzofuran	3.8		0.0004	1.00
52663726	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (PCB 167)	0.0011		1.3	1.00
53973981	Polygeenan				1.00
54350480	Etretinate				1.00
54965241	Tamoxifen citrate				1.00
55673897	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.38		0.004	1.00
55684941	Total Hexachlorodibenzofuran				1.00
55722275	Total Tetrachlorodibenzofuran				1.00
55738540	trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazol				1.00
56391572	Netilmicin sulfate				1.00
57117314	2,3,4,7,8-Pentachlorodibenzofuran	11		0.00013	1.00
57117416	1,2,3,7,8-Pentachlorodibenzofuran	1.1		0.0013	1.00
57117449	1,2,3,6,7,8-Hexachlorodibenzofuran	3.8		0.0004	1.00

57465288	3,3',4,4',5-PENTACHLOROBIPHENYL (PCB 126)	3.8	0.0004	1.00
57653857	1,2,3,6,7,8-Hexachlorodibenzo-P-dioxin	3.8	0.0004	1.00
57835924	4-Nitropyrene	0.00011		1.00
59467968	Midazolam hydrochloride			1.00
60153493	3-(N-Nitrosomethylamino)propionitrile			1.00
60568050	Furmecycloz			1.00
60851345	2,3,4,6,7,8-Hexachlorodibenzofuran	3.8	0.0004	1.00
62015398	Misoprostol			1.00
62450060	Trp-P-1 {3-Amino-1,4-dimethyl-5H-pyrido[4,3-b]indole}			1.00
62450071	Trp-P-2 {3-Amino-1-methyl-5H-pyrido[4,3-b]indole}			1.00
62476599	Acifluorfen			1.00
64091914	4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone {NNK}			1.00
65510443	2,3',4,4',5'-PENTACHOROBIPHENYL (PCB 123)	0.0011	1.3	1.00
67562394	1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.38	0.004	1.00
67730103	Glu-P-2 {2-Aminodipyrido[1,2-a:3',2'-d]imidazole}			1.00
67730114	Glu-P-1 {2-Amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole}			1.00
68006837	2-Amino-3-methyl-9H-pyrido(2,3-b) indole {MeA-alpha-C}			1.00
69782907	2,3,3',4,4',5'-HEXACHLOROBIPHENYL (PCB 157)	0.0011	1.3	1.00
70362504	3,4,4',5'-TETRACHLOROBIPHENYL (PCB 81)	0.011	0.13	1.00
70476823	Mitoxantrone hydrochloride			1.00
70648269	1,2,3,4,7,8-Hexachlorodibenzofuran	3.8	0.0004	1.00
72918219	1,2,3,7,8,9-Hexachlorodibenzofuran	3.8	0.0004	1.00
74472370	2,3,4,4',5-PENTACHLOBIPHENYL (PCB114)	0.0011	1.3	1.00
76180966	IQ {2-Amino-3-methylimidazo[4,5-f]quinoline}			1.00
77501634	Lactofen			1.00
77536664	Actinolite	0.00019		333.33
77536675	Anthophyllite	0.00019		333.33
77536686	Tremolite	0.00019		333.33
86220420	Nafarelin acetate			1.00
108171262	Chlorinated paraffin	0.000025		1.00
191234227	Hydrocyanic acid		340	9
341972314	Hydrocyanic acid		340	9

## CAS

## Substance

Update 221201

1000 Aflatoxins  
1005 Analgesic mixtures containing phenacetin  
1010 Androgenic (anabolic) steroids  
1016 Arsenic compounds (inorganic)  
1017 Arsenic compounds (other than inorganic)  
1020 Benzidine-based dyes  
1025 Betel quid with tobacco  
1030 Bitumens, extracts of steam-refined and air-refined bitumens  
1035 Bleomycins  
1050 Carbon black extract  
1055 Carrageenan (degraded)  
1056 Ceramic fibers (man-made)  
1058 Chlorobenzenes  
1059 p-Chloro-o-toluidine  
1060 Chlorophenols  
1065 Chlorophenoxy herbicides  
1066 Coke Oven Emissions  
1068 Conjugated estrogens  
1070 Creosotes  
1073 Cyanide compounds  
1075 Dialkylnitrosamines  
1078 Diaminotoluenes (mixed isomers)  
1080 Dibenzofurans (chlorinated) {PCDFs} [Treated as 2378TCDD for HRA]  
1085 Dioxins, total, with individ. isomers also reported {PCDDs}  
  
1086 Dioxins, total, w/o individ. isomers reported {PCDDs} [Treat as 2378TCDD for HRA]  
1090 Environmental Tobacco Smoke  
1091 Epoxy resins  
1095 Estrogens, non-steroidal  
1100 Estrogens, steroidal  
1101 Fluorides and compounds  
1103 Fluorocarbons (brominated)  
1104 Fluorocarbons (chlorinated)  
1110 Gasoline vapors  
1111 Glasswool (man-made fibers)  
1115 Glycol ethers (and their acetates)  
1125 Isocyanates  
1128 Lead compounds (inorganic)  
1129 Lead compounds (other than inorganic)  
1131 Lubricant base oils  
1135 Mineral fibers (other than man-made)  
1136 Mineral fibers (fine: man-made)  
1140 Mineral oils (untreated and mildly treated oils)  
1141 Modified Hydrogen fluoride {MHF}  
1146 Nickel refinery dust  
1148 Nitrilotriacetic acid (salts)  
1150 PAHs, total, with individ. components also reported  
1151 PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]  
1155 Polybrominated biphenyls  
1160 Progestins  
1165 Radionuclides  
1166 Radon and its decay  
1167 Retinol/retinyl este  
1168 Rockwool (man-made fibers)  
1175 Silica, crystalline  
1180 Shale oils  
1181 Slagwool (man-made fibers)  
1185 Soots  
1190 Talc containing asbestiform fibers  
1200 Tobacco products, smokeless  
1205 alpha-chlorinated Toluenes  
1206 Wood preservatives (containing arsenic and chromate)  
1216 Cobalt compounds, insoluble  
1217 Cobalt sulfate and other soluble cobalt compounds  
1221 Polymeric (Oligo) HDI  
1226 Diisocyanurate

**1227 HDI Prepolymer**  
**1228 Isocyanurate**  
2222 Polybrominated diphenyl ethers {PBDEs}  
9901 Diesel engine exhaust, particulate matter (Diesel PM)  
9902 Diesel engine exhaust, total organic gas  
9910 Gasoline engine exhaust, particulate matter  
9911 Gasoline engine exhaust, total organic gas  
9960 Sulfates  
9961 Sulfuric Acid + Oleum  
11101 Particulate Matter  
16113 Reactive Organic Gas  
42101 Carbon Monoxide [Criteria Pollutant]  
42401 Oxides of sulfur  
42603 Oxides of Nitrogen  
43101 Total Organic Gases  
43104 Volatile Organic Compounds (VOC)  
50000 Formaldehyde  
50066 Phenobarbital  
50077 Mitomycin C  
50180 Cyclophosphamide  
50282 Estradiol 17 beta  
50293 DDT {1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane}  
50328 Benzo[a]pyrene  
50351 Thalidomide  
50419 Clomiphene citrate  
50555 Reserpine  
50760 Actinomycin D  
50782 Aspirin  
51218 Fluorouracil  
51285 2,4-Dinitrophenol  
51525 Propylthiouracil  
51752 Nitrogen mustard  
51796 Urethane  
52244 Tris(1-aziridinyl) phosphine sulfide  
52675 Penicillamine  
52686 Trichlorfon  
53167 Estrone  
53703 Dibenz[a,h]anthracene  
53963 2-Acetylaminofluorene  
54115 Nicotine  
54626 Aminopterin  
54911 Pipobroman  
55185 N-Nitrosodiethylamine  
55210 Benzamide  
55630 Nitroglycerin  
55867 Nitrogen mustard hydrochloride  
55981 1,4-Butanediol dimethanesulfonate  
56042 Methylthiouracil  
56235 Carbon tetrachloride  
56382 Parathion  
56495 3-Methylcholanthrene  
56531 Diethylstilbestrol  
56553 Benz[a]anthracene  
56757 Chloramphenicol  
57125 Cyanide Compounds (Inorganic)  
57147 1,1-Dimethylhydrazine  
57330 Pentobarbital sodium  
57410 Phenytoin  
57578 beta-Propiolactone  
57636 Ethinyl estradiol  
57749 Chlordane  
57830 Progesterone  
57976 7,12-Dimethylbenz[a]anthracene  
58184 Methyltestosterone  
58220 Testosterone and its esters  
58899 Lindane {gamma-Hexachlorocyclohexane}  
58902 2,3,4,6-Tetrachlorophenol



59052 Methotrexate  
59870 Nitrofurazone  
59892 N-Nitrosomorpholine  
59961 Phenoxybenzamine  
60093 p-Aminoazobenzene  
60117 4-Dimethylaminoazobenzene  
60344 Methyl hydrazine  
60355 Acetamide  
60560 Methimazole  
60571 Dieldrin  
61574 Niridazole  
61825 Amitrole  
62442 Phenacetin  
62500 Ethyl methanesulfonate  
62533 Aniline  
62555 Thioacetamide  
62566 Thiourea  
62737 Dichlorovos {DDVP}  
62759 N-Nitrosodimethylamine  
63252 Carbaryl  
63923 Phenoxybenzimidazole hydrochloride  
63989 Phenacetamide  
64675 Diethyl sulfate  
64755 Tetracycline hydrochloride  
66273 Methyl methanesulfonate  
66751 Uracil mustard  
66819 Cycloheximide  
67209 Nitrofurantoin  
67458 Furazolidone  
67561 Methanol  
67630 Isopropyl alcohol  
67663 Chloroform  
67721 Hexachloroethane  
68122 Dimethyl formamide  
68224 Norethisterone  
68768 Tris(aziridinyl)-p-benzoquinone  
70257 N-Methyl-N'-nitro-N-nitrosoguanidine  
71363 n-Butyl alcohol  
71432 Benzene  
71487 Cobalt acetate (tetrahydrate)\*  
71556 Methyl chloroform {1,1,1-Trichloroethane}  
71589 Medroxyprogesterone  
72333 Mestranol  
72435 Methoxychlor  
72548 Dichlorodiphenyldichloroethane {DDD}  
72559 Dichlorodiphenyldichloroethylene {DDE}  
72571 Trypan blue  
74828 Methane  
74839 Methyl bromide {Bromomethane}  
74851 Ethylene  
74873 Methyl chloride {Chloromethane}  
74884 Methyl iodide {Iodomethane}  
74908 Hydrogen Cyanide  
74953 Methylene bromide  
75003 Ethyl chloride {Chloroethane}  
75014 Vinyl chloride  
75025 Vinyl fluoride  
75058 Acetonitrile  
75070 Acetaldehyde  
75092 Methylene chloride {Dichloromethane}  
75150 Carbon disulfide  
75218 Ethylene oxide  
75252 Bromoform  
75274 Bromodichloromethane  
75343 1,1-Dichloroethane  
75354 Vinylidene chloride  
75376 1,1-Difluoroethane {Freon 152a}

75434 Dichlorofluoromethane {Freon 21}  
75445 Phosgene  
75456 Chlorodifluoromethane {Freon 22}  
75467 Trifluoromethane {Freon 23}  
75558 2-Methylaziridine  
75569 Propylene oxide  
75650 tert-Butyl alcohol  
75694 Trichlorofluoromethane {Freon 11}  
75718 Dichlorodifluoromethane (Freon 12)  
75730 Carbon tetrafluoride  
75865 2-Methylacetonitrile  
76062 Chloropicrin  
76131 Chlorinated Fluorocarbon {CFC-113} {1,1,2-Trichloro-1,2,2-trifluoroethane}  
76437 Fluoxymesterone  
76448 Heptachlor  
77474 Hexachlorocyclopentadiene  
77781 Dimethyl sulfate  
78308 Triorthocresyl phosphate  
78400 Triethyl phosphine  
78591 Isophorone  
78795 Isoprene, except from vegetative emission sources  
78842 Isobutyraldehyde  
78875 1,2-Dichloropropane  
78886 2,3-Dichloropropene  
78922 sec-Butyl alcohol  
78933 Methyl ethyl ketone  
79005 1,1,2-Trichloroethane  
79016 Trichloroethylene  
79061 Acrylamide  
79107 Acrylic acid  
79118 Chloroacetic acid  
79210 Peracetic acid  
79345 1,1,2,2-Tetrachloroethane  
79447 Dimethyl carbamoyl chloride  
79469 2-Nitropropane  
79572 Oxytetracycline  
80057 4,4'-Isopropylidenediphenol  
80159 Cumene hydroperoxide  
80626 Methyl methacrylate  
81072 Saccharin  
81812 Warfarin  
81889 D and C Red No. 19  
82280 1-Amino-2-methylantraquinone  
82688 Pentachloronitrobenzene {Quintobenzene}  
83329 Acenaphthene  
84173 Dienestrol  
84662 Diethyl phthalate  
84742 Dibutyl phthalate  
85018 Phenanthrene  
85101 Particulate Matter 1  
85449 Phthalic anhydride  
85687 Butyl benzyl phthalate  
86306 N-Nitrosodiphenylamine  
86737 Fluorene  
87296 Cinnamyl anthranilate  
87627 2,6-Xylidene  
87683 Hexachlorobutadiene  
87865 Pentachlorophenol  
88062 2,4,6-Trichlorophenol  
88101 Particulate Matter 2.5 Microns or less  
88755 2-Nitrophenol  
88857 Dinoseb  
88891 Picric acid  
90040 O-Anisidine  
90437 2-Phenylphenol  
90948 Michler's ketone  
91087 Toluene-2,6-diisocyanate



91203 Naphthalene  
91225 Quinoline  
91576 2-Methyl naphthalene  
91598 2-Naphthylamine  
91941 3,3'-Dichlorobenzidine  
92524 Biphenyl  
92671 4-Aminobiphenyl  
92875 Benzidine (and its salts)  
92933 4-Nitrobiphenyl  
94360 Benzoyl peroxide  
94586 Dihydrosafrole  
94597 Safrole  
94757 Dichlorophenoxyacetic acid, salts and esters {2,4-D}  
94780 Phenazopyridine hydrochloride  
95067 Sulfallate  
95476 o-Xylene  
95487 o-Cresol  
95501 1,2-Dichlorobenzene  
95534 o-Toluidine  
95578 2-Chlorophenol  
95636 1,2,4-Trimethylbenze  
95692 p-Chloro-o-toluidine  
95807 2,4-Diaminotoluene  
95830 4-Chloro-o-phenylenediamine  
95954 2,4,5-Trichlorophenol  
96093 Styrene oxide  
96128 1,2-Dibromo-3-chloropropane  
96139 2,3-Dibromo-1-propanol  
96184 1,2,3-Trichloropropane  
96333 Methyl acrylate  
96457 Ethylene thiourea  
97563 o-Aminoazotoluene  
98077 Benzoic trichloride  
**98566 1-Chloro-4-(trifluoromethyl)benzene [PCBTF]**  
98828 Cumene  
98862 Acetophenone  
98873 Benzal chloride  
98884 Benzoyl chloride  
98953 Nitrobenzene  
99592 5-Nitro-o-anisidine  
99650 m-Dinitrobenzene  
99661 Valproate  
100027 4-Nitrophenol  
100210 Terephthalic acid  
100254 p-Dinitrobenzene  
100403 4-Vinylcyclohexene  
100414 Ethyl benzene  
100425 Styrene  
100447 Benzyl chloride  
100754 N-Nitrosopiperidine  
101020 Triphenyl phosphite  
101144 4,4'-Methylene bis(2 Chloroaniline) (MOCA)  
101611 4,4'-Methylene bis (N,N-dimethyl) benzenamine  
101688 Methylene diphenyl diisocyanate {MDI}  
101779 4,4'-Methylenedianiline  
101804 4,4'-Diaminodiphenyl ether  
101906 Diglycidyl resorcinol ether {DGRE}  
103231 Bis(2-ethylhexyl) adipate  
103333 Azobenzene  
104949 p-Anisidine  
105602 Caprolactam  
105679 2,4-Dimethylphenol {2,4-Xylenol}  
106423 p-Xylene  
106445 p-Cresol  
106467 p-Dichlorobenzene  
106478 p-Chloroaniline  
106490 p-Toluidine

106503 p-Phenylenediamine  
106514 Quinone  
106876 4-Vinyl-1-cyclohexene diepoxide  
106887 1,2-Epoxybutane  
106898 Epichlorohydrin  
106934 Ethylene dibromide {EDB}  
106990 1,3-Butadiene  
107028 Acrolein  
107051 Allyl chloride  
107062 Ethylene dichloride {EDC}  
107131 Acrylonitrile  
107186 Allyl alcohol  
107211 Ethylene glycol  
107302 Chloromethyl methyl ether (technical grade)  
107982 Propylene glycol monomethyl ether  
108054 Vinyl acetate  
108101 Methyl isobutyl ketone {Hexone}  
**108190 Biuret**  
108316 Maleic anhydride  
108383 m-Xylene  
108394 m-Cresol  
108601 Bis(2-chloro-1-methylethyl) ether  
108656 Propylene glycol monomethyl ether acetate  
108883 Toluene  
108907 Chlorobenzene  
108930 Cyclohexanol  
108952 Phenol  
109068 2-Methylpyridine  
109864 Ethylene glycol monomethyl ether  
110009 Furan  
110496 Ethylene glycol monomethyl ether acetate  
110543 Hexane  
110714 Ethylene glycol dimethyl ether  
110805 Ethylene glycol monoethyl ether  
110827 Cyclohexane  
110861 Pyridine  
111159 Ethylene glycol monoethyl ether acetate  
111308 Glutaraldehyde  
111422 Diethanolamine  
111444 Bis(2-chloroethyl) ether {DCEE}  
111466 Diethylene glycol  
111762 Ethylene glycol monobutyl ether  
111773 Diethylene glycol monomethyl ether  
111900 Diethylene glycol monoethyl ether  
111966 Diethylene glycol dimethyl ether  
112345 Diethylene glycol monobutyl ether  
112492 Triethylene glycol dimethyl ether  
114261 Propoxur  
115026 Azaserine  
115071 Propylene  
115286 Chlorendic acid  
115322 Dicofol  
115673 Paramethadione  
115866 Triphenyl phosphate  
117793 2-Aminoanthraquinone  
117817 Di(2-ethylhexyl) phthalate  
117840 n-Dioctyl phthalate  
118741 Hexachlorobenzene  
119904 3,3'-Dimethoxybenzidine  
119937 3,3'-Dimethylbenzidine {o-Tolidine}  
120127 Anthracene  
120581 Isosafrole  
120718 p-Cresidine  
120809 Catechol  
120821 1,2,4-Trichlorobenzene  
120832 2,4-Dichlorophenol  
121142 2,4-Dinitrotoluene

121448 Triethylamine  
121697 N,N-Dimethylaniline  
122601 Phenyl glycidyl ether  
122667 1,2-Diphenylhydrazine {Hydrazobenzene}  
123319 Hydroquinone  
123386 Propionaldehyde  
123728 Butyraldehyde  
123911 1,4-Dioxane  
124403 Dimethylamine  
124481 Chlorodibromomethane  
125848 Aminoglutethimide  
126078 Griseofulvin  
126727 Tris(2,3-dibromopropyl)phosphate  
126738 Tributyl phosphate  
126998 Chloroprene  
127184 Perchloroethylene {Tetrachloroethene}  
127480 Trimethadione  
128449 Sodium saccharin  
129000 Pyrene  
129157 2-Methyl-1-nitroanthraquinone (uncertain purity)  
131113 Dimethyl phthalate  
132274 Sodium o-phenylphenate  
132649 Dibenzofuran  
133062 Captan  
133073 Folpet  
133904 Chloramben  
134292 o-Anisidine hydrochloride  
134327 1-Naphthylamine  
135206 Cupferron  
**136527 Cobalt octoate**  
139139 Nitrilotriacetic acid  
139651 4,4'-Thiodianiline  
139913 5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone  
140578 Aramite  
140885 Ethyl acrylate  
**141004 Cadmium succinate**  
141322 Butyl acrylate  
**142041 Aniline hydrochloride**  
**143339 Sodium cyanide**  
143500 Chlordecone {Keponé}  
143679 Vinblastine sulfate  
147944 Cytarabine  
148823 Melphalan  
**151508 Potassium cyanide**  
151564 Ethyleneimine {Aziridine}  
154427 Thioguanine  
154938 Bischloroethyl nitrosourea  
156105 p-Nitrosodiphenylamine  
156627 Calcium cyanamide  
189559 Dibenzo[a,i]pyrene  
189640 Dibenzo[a,h]pyrene  
191242 Benzo[g,h,i]perylene  
191300 Dibenzo[a,l]pyrene  
192654 Dibenzo[a,e]pyrene  
192972 Benzo[e]pyrene  
193395 Indeno[1,2,3-cd]pyrene  
194592 7H-Dibenzo[c,g]carbazole  
198550 Perylene  
205823 Benzo[j]fluoranthene  
205992 Benzo[b]fluoranthene  
206440 Fluoranthene  
207089 Benzo[k]fluoranthene  
208968 Acenaphthylene  
218019 Chrysene  
224420 Dibenz[a,j]acridine  
226368 Dibenz[a,h]acridine  
271896 Benzofuran

299752 Treosulfan  
301042 Lead acetate  
302012 Hydrazine  
302705 Nitrogen mustard N-oxide  
302794 all-trans-Retinoic acid  
303344 Lasiocarpine  
303479 Ochratoxin A  
305033 Chlorambucil  
309002 Aldrin  
315220 Monocrotaline  
315377 Testosterone enanthate  
319846 alpha-Hexachlorocyclohexane  
319857 beta-Hexachlorocyclohexane  
334883 Diazomethane  
366701 Procarbazine hydrochloride  
373024 Nickel acetate  
379793 Ergotamine tartrate  
434071 Oxymetholone  
443481 Metronidazole  
446866 Azathioprine  
463581 Carbonyl sulfide  
474259 Chenodiol  
484208 5-Methoxypsoralen  
492808 Auramine  
494031 N-N-Bis(2-chloroethyl)-2-naphthylamine {Chlornaphazine}  
505602 Mustard gas  
509148 Tetranitromethane  
510156 Chlorobenzilate  
512561 Trimethyl phosphate  
513371 Dimethylvinylchloride {DMVC}  
**513791 Cobalt carbonate**  
528290 o-Dinitrobenzene  
531760 Merphalan  
531828 N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide  
532274 2-Chloroacetophenone  
534521 4,6-Dinitro-o-cresol  
540590 1,2-Dichloroethylene  
540738 1,2-Dimethylhydrazine  
540841 2,2,4-Trimethylpentane  
540885 t-Butyl acetate  
541413 Ethyl chloroformate  
541731 1,3-Dichlorobenzene  
542756 1,3-Dichloropropene  
542881 Bis(chloromethyl) ether  
546883 Acetohydroxamic acid  
554132 Lithium carbonate  
555840 1-[(5-Nitrofurfurylidene)amino]-2-imidazolidinone  
556525 Glycidol  
563473 3-Chloro-2-methylpropene  
564250 Doxycycline  
569619 C. I. Basic Red 9 monohydrochloride  
569642 C. I. Basic Green 4  
584849 Toluene-2,4-diisocyanate  
590965 Methylazoxymethanol  
**592018 Calcium cyanide**  
592621 Methylazoxymethanol acetate  
593602 Vinyl bromide  
593748 Methyl mercury  
595335 Megestrol acetate  
602879 5-Nitroacenaphthene  
606202 2,6-Dinitrotoluene  
607578 2-Nitrofluorene  
608731 Hexachlorocyclohexanes (mixed or technical grade)  
**612828 3,3'-Dimethylbenzidine dihydrochloride**  
613354 N,N'-Diacetylbenzidine  
615054 2,4-Diaminoanisole  
615532 N-Nitroso-N-methylurethane

621647 N-Nitrosodi-n-propylamine  
624839 Methyl isocyanate  
629141 Ethylene glycol diethyl ether  
630080 Carbon monoxide  
630933 Diphenylhydantoin  
636215 o-Toluidine hydrochloride  
680319 Hexamethylphosphoramide  
684935 N-Nitroso-N-methylurea  
712685 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole  
759739 N-Nitroso-N-ethylurea  
764410 1,4-Dichloro-2-butene  
765344 Glycidaldehyde  
794934 Panfuran S  
811972 1,1,1,2-Tetrafluoroethane {HFC-134a}  
**814891 Cobalt oxalate**  
822060 Hexamethylene-1,6-diisocyanate  
838880 4,4'-Methylene bis(2-methylaniline)  
846491 Lorazepam  
846504 Temazepam  
919164 Lithium citrate  
924163 N-Nitrosodi-n-butylamine  
924425 N-Methyloacrylamide  
930552 N-Nitrosopyrrolidine  
961115 Tetrachlorvinphos  
989388 C. I. Basic Red 1  
1024573 Heptachlor epoxide  
1116547 N-Nitrosodiethanolamine  
1120714 1,3-Propane sultone  
1163195 Decabromodiphenyl oxide  
**1189851 tert-Butyl chromate(VI)**  
1271289 Nickelocene  
**1303000 Gallium arsenide**  
**1303282 Arsenic pentoxide**  
**1304569 Beryllium oxide**  
**1307966 Cobalt [II] oxide**  
**1308061 Cobalt [III] oxide**  
1309644 Antimony trioxide  
1310732 Sodium hydroxide  
1313275 Molybdenum trioxide  
1313991 Nickel oxide  
1314132 Zinc oxide  
1314201 Thorium dioxide  
1314563 Phosphorus pentoxide  
1314621 Vanadium Pentoxide  
**1317426 Cobalt sulfide**  
1319773 Cresols (mixtures of) {Cresylic acid}  
**1326416 2,4-Dinitrotoluene, sulfurized**  
**1327533 Arsenic trioxide**  
1330207 Xylene  
1332214 Asbestos  
1333820 Chromium trioxide  
1335326 Lead subacetate  
1335871 Hexachloronaphthalene  
1336363 PCBs {Polychlorinated biphenyls}  
1344281 Aluminum oxide (fibrous)  
1405103 Neomycin sulfate  
1464535 Diepoxybutane  
1582098 Trifluralin  
1596845 Daminozide  
1615801 1,2-Diethylhydrazine  
1620219 Chlorethazine hydrochloride  
1634044 Methyl tert-butyl ether  
1689845 Bromoxynil  
1694093 Benzyl violet 4B  
1746016 2,3,7,8-Tetrachlorodibenzo-P-Dioxin  
1836755 Nitrofen (technical grade)  
1897456 Chlorothalonil

1937377 Direct Black 38  
2068782 Vincristine sulfate  
2092560 D and C Red No. 8  
2164172 Fluometuron  
2234131 Octachloronaphthalene  
2303164 Diallate  
2385855 Mirex  
2425061 Captafol  
2475458 Disperse Blue 1  
2551624 Sulfur Hexafluoride  
2602462 Direct Blue 6  
2646175 Oil Orange SS  
2784943 HC Blue 1  
2795393 Perfluorooctanoic acid {PFOA} (and its salts, esters, and sulfonates)  
2807309 Ethylene glycol monopropyl ether  
2832408 C. I. Disperse Yellow 3  
3068880 beta-Butyrolactone  
3268879 1,2,3,4,6,7,8,9-Octachlorodibenzo-P-dioxin  
3333673 Nickel carbonate  
3468631 D and C Orange No. 1  
3546109 Phenesterin  
3564098 Ponceau 3R  
3570750 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole  
3688537 AF-2  
3697243 5-Methylchrysene  
3761533 Ponceau MX  
3771195 Nafenopin  
3778732 Ifosfamide  
3810740 Streptomycin sulfate  
3963959 Methacycline hydrochloride  
4170303 Crotonaldehyde  
4342034 Dacarbazine  
4549400 N-Nitrosomethylvinylamine  
4680788 C. I. Acid Green 3  
4759482 Isotretinoin  
5160021 D and C Red No. 9  
5216251 p-alpha,alpha,alpha-Tetrachlorotoluene  
5411223 Benzphetamine hydrochloride  
5522430 1-Nitropyrene  
6109973 3-Amino-9-ethylcarbazole hydrochloride  
6112761 Mercaptopurine  
6164983 Chlordimeform  
6358538 Citrus Red No. 2  
6484522 Ammonium nitrate  
6533002 Norgestrel  
7429905 Aluminum  
7439921 Lead  
7439965 Manganese  
7439976 Mercury  
7440020 Nickel  
7440224 Silver  
7440280 Thallium  
7440360 Antimony  
7440382 Arsenic  
7440393 Barium  
7440417 Beryllium  
7440439 Cadmium  
7440473 Chromium  
7440484 Cobalt  
7440508 Copper  
7440622 Vanadium (fume or dust)  
7440666 Zinc  
7446095 Sulfur Dioxide  
7446277 Lead phosphate  
7446346 Selenium sulfide  
7446719 Sulfur Trioxide  
7487947 Mercuric chloride

7496028 6-Nitrochrysene  
7550450 Titanium tetrachloride  
7631869 **Silica, crystalline**  
7646799 **Cobalt chloride (hexahydrate)**  
7647010 Hydrochloric acid  
7664382 Phosphoric acid  
7664393 Hydrogen fluoride  
7664417 Ammonia  
7664939 Sulfuric acid  
7681494 **Sodium Fluoride**  
7697372 Nitric acid  
7718549 **Nickel Chloride**  
7719122 Phosphorus trichloride  
7723140 Phosphorus  
7726956 Bromine  
7758012 Potassium bromate  
7758976 Lead chromate  
7778394 **Arsenic acid**  
7778441 **Calcium arsenate**  
7782492 Selenium  
7782505 Chlorine  
7783064 Hydrogen sulfide  
7783075 Hydrogen Selenide  
7783202 Ammonium sulfate  
7783791 **Selenium hexafluoride**  
7784421 Arsine  
7786814 **Nickel sulfate**  
7787566 **Beryllium sulfate (tetrahydrate)**  
7789062 Strontium chromate  
7789302 Bromine Pentafluoride  
7803512 Phosphine  
8001352 Toxaphene  
8007452 Coal tars  
8014957 Oleum  
8018017 Mancozeb  
9002680 Menotropins  
9004664 Iron dextran complex  
9006422 Metiram  
10024972 Nitrous oxide  
10025873 Phosphorus oxychloride  
10026138 Phosphorus pentachloride  
10026241 **Cobalt sulfate (heptahydrate)**  
10028156 Ozone  
10034932 Hydrazine sulfate  
10035106 Hydrogen bromide  
10048132 Sterigmatocystin  
10049044 Chlorine dioxide  
10102440 Nitrogen Dioxide  
10108642 **Cadmium chloride**  
10124433 **Cobalt sulfate**  
10141056 **Cobalt nitrate (hexahydrate)**  
10210681 **Cobalt carbonyl**  
10294403 Barium chromate  
10588019 Sodium dichromate  
10595956 N-Nitrosomethylethylamine  
12001284 **Crocidolite**  
12001295 **Chrysotile**  
12035722 Nickel subsulfide  
12054487 Nickel hydroxide  
12079651 **Manganese cyclopentadienyl tricarbonyl**  
12108133 **2-Methylcyclopentadienyl manganese tricarbonyl**  
12122677 Zineb  
12172735 **Amosite**  
12427382 Maneb  
12510428 Erionite  
13010474 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea {CCNU}  
13121705 Cyhexatin

**13138459 Nickel nitrate {Nickel (II) nitrate}**  
13256229 N-Nitrososarcosine  
13311847 Flutamide  
13463393 Nickel carbonyl  
13463406 Iron pentacarbonyl  
**13510491 Beryllium sulfate**  
13647353 Trilostane  
13765190 Calcium chromate  
13909096 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea {Methyl CCNU}  
**14464461 Silica, crystalline (respirable), in the form of cristobalite**  
**14808607 Silica, crystalline (respirable), in the form of quartz**  
14901087 Cycasin  
**15096523 Sodium aluminum fluoride**  
15475566 Methotrexate sodium  
**15541454 Bromate**  
15663271 Cisplatin  
15972608 Alachlor  
**16065831 Chromium (III)**  
16071866 Direct Brown 95 (technical grade)  
16543558 N-Nitrosornicotine  
16568028 Gyromitrin  
**16842038 Cobalt hydrocarbonyl**  
17230885 Danazol  
18378897 Plicamycin  
18540299 Chromium, hexavalent  
18662538 Nitrilotriacetic acid, trisodium salt monohydrate  
18883664 Streptozotocin  
19408743 1,2,3,7,8,9-Hexachlorodibenzo-P-dioxin  
20325400 3,3'-Dimethoxybenzidine dihydrochloride  
20816120 Osmium tetroxide  
20830813 Daunomycin  
**21041930 Cobalt hydroxide**  
21725462 Cyanazine  
23092173 Halazepam  
23214928 Adriamycin  
**23501817 Uretidione (HDI) {Uretidone}**  
23541506 Daunorubicin hydrochloride  
24267569 Iodine-131  
25013165 Butylated hydroxyanisole {BHA}  
25154545 Dinitrobenzenes (mixtures of)  
25167833 Tetrachlorophenols  
25265718 Dipropylene glycol  
25321146 Dinitrotoluenes (mixed isomers)  
25321226 Dichlorobenzenes (mixed isomers)  
25551137 Trimehtylbenzenes  
26148685 A-alpha-C {2-Amino-9H-pyrido[2,3-b]indole}  
26471625 Toluene Diisocyanate  
26995915 Urofollitropin  
**28407376 C.I. Direct Blue 218 [PAH-Derivative/Related, POM]**  
28434868 3,3'-Dichloro-4,4'-diaminodiphenyl ether  
28911015 Triazolam  
28981977 Alprazolam  
30402154 Total Pentachlorodibenzofuran  
31508006 2,3',4,4',5-PENTACHLOROBIPHENYL (PCB 118)  
32598133 3,3',4,4'-TETRACHLOROBIPHENYL (PCB77)  
32598144 2,3,3',4,4'-Pentachlorobiphenyl {PCB 105}  
32774166 3,3',4,4',5,5'-HEXACHLOROBIPHENYL (PCB 169)  
33419420 Etoposide  
34256821 Acetochlor  
34465468 Total Hexachlorodibenzo-p-dioxin  
34590948 Dipropylene glycol monomethyl ether  
35822469 1,2,3,4,6,7,8-Heptachlorodibenzo-P-dioxin  
36088229 Total Pentachlorodibenzo-p-dioxin  
36791045 Ribavirin  
37871004 Total Heptachlorodibenzo-p-dioxin  
38380084 2,3,3',4,4',5-HEXACHLOROBIPHENYL (PCB 156)  
38998753 Total Heptachlorodibenzofuran



39001020 1,2,3,4,6,7,8,9-Octachlorodibenzofuran  
39156417 2,4-Diaminoanisole sulfate  
39227286 1,2,3,4,7,8-Hexachlorodibenzo-P-dioxin  
39300453 Dinocap  
39635319 2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (PCB 189)  
39831555 Amikacin sulfate  
40321764 1,2,3,7,8-Pentachlorodibenzo-P-dioxin  
41575944 Carboplatin  
41903575 Total Tetrachlorodibenzo-p-dioxin  
42397648 1,6-Dinitropyrene  
42397659 1,8-Dinitropyrene  
49842071 Tobramycin sulfate  
51207319 2,3,7,8-Tetrachlorodibenzofuran  
52663726 2,3',4,4',5,5'-HEXACHLOROBIPHENYL (PCB 167)  
53973981 Polygeenan  
54350480 Etretinate  
54965241 Tamoxifen citrate  
55673897 1,2,3,4,7,8,9-Heptachlorodibenzofuran  
55684941 Total Hexachlorodibenzofuran  
55722275 Total Tetrachlorodibenzofuran  
55738540 trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazol  
56391572 Netilmicin sulfate  
57117314 2,3,4,7,8-Pentachlorodibenzofuran  
57117416 1,2,3,7,8-Pentachlorodibenzofuran  
57117449 1,2,3,6,7,8-Hexachlorodibenzofuran  
57465288 3,3',4,4',5-PENTACHLOROBIPHENYL (PCB 126)  
57653857 1,2,3,6,7,8-Hexachlorodibenzo-P-dioxin  
57835924 4-Nitropyrene  
59467968 Midazolam hydrochloride  
60153493 3-(N-Nitrosomethylamino)propionitrile  
60568050 Furmecycloz  
60851345 2,3,4,6,7,8-Hexachlorodibenzofuran  
62015398 Misoprostol  
62450060 Trp-P-1 {3-Amino-1,4-dimethyl-5H-pyrido[4,3-b]indole}  
62450071 Trp-P-2 {3-Amino-1-methyl-5H-pyrido[4,3-b]indole}  
62476599 Acifluorfen  
64091914 4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone {NNK}  
65510443 2,3',4,4',5'-PENTACHLOROBIPHENYL (PCB 123)  
67562394 1,2,3,4,6,7,8-Heptachlorodibenzofuran  
67730103 Glu-P-2 {2-Aminodipyrido[1,2-a:3',2'-d]imidazole}  
67730114 Glu-P-1 {2-Amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole}  
68006837 2-Amino-3-methyl-9H-pyrido(2,3-b) indole {MeA-alpha-C}  
69782907 2,3,3',4,4',5'-HEXACHLOROBIPHENYL (PCB 157)  
70362504 3,4,4',5'-TETRACHLOROBIPHENYL (PCB 81)  
70476823 Mitoxantrone hydrochloride  
70648269 1,2,3,4,7,8-Hexachlorodibenzofuran  
72918219 1,2,3,7,8,9-Hexachlorodibenzofuran  
74472370 2,3,4,4',5-PENTACHLOROBIPHENYL (PCB114)  
76180966 IQ {2-Amino-3-methylimidazo[4,5-f]quinoline}  
77501634 Lactofen  
77536664 Actinolite  
77536675 Anthophyllite  
77536686 Tremolite  
86220420 Nafarelin acetate  
108171262 Chlorinated paraffin  
191234227 Hydrocyanic acid  
341972314 Hydrocyanic acid

Substance	CAS	Update
1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea {Methyl CCNU}	13909096	Update 221201
1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea {CCNU}	13010474	
1,1,1,2-Tetrafluoroethane {HFC-134a}	811972	
1,1,2,2-Tetrachloroethane	79345	
1,1,2-Trichloroethane	79005	
1,1-Dichloroethane	75343	
1,1-Difluoroethane {Freon 152a}	75376	
1,1-Dimethylhydrazine	57147	
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001020	
1,2,3,4,6,7,8,9-Octachlorodibenzo-P-dioxin	3268879	
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	
1,2,3,4,6,7,8-Heptachlorodibenzo-P-dioxin	35822469	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	
1,2,3,4,7,8-Hexachlorodibenzo-P-dioxin	39227286	
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	
1,2,3,6,7,8-Hexachlorodibenzo-P-dioxin	57653857	
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	
1,2,3,7,8,9-Hexachlorodibenzo-P-dioxin	19408743	
1,2,3,7,8-Pentachlorodibenzofuran	57117416	
1,2,3,7,8-Pentachlorodibenzo-P-dioxin	40321764	
1,2,3-Trichloropropane	96184	
1,2,4-Trichlorobenze	120821	
1,2,4-Trimethylbenze	95636	
1,2-Dibromo-3-chloropropane	96128	
1,2-Dichlorobenzene	95501	
1,2-Dichloroethylene	540590	
1,2-Dichloropropane	78875	
1,2-Diethylhydrazine	1615801	
1,2-Dimethylhydrazine	540738	
1,2-Diphenylhydrazine {Hydrazobenzene}	122667	
1,2-Epoxybutane	106887	
1,3-Butadiene	106990	
1,3-Dichlorobenzene	541731	
1,3-Dichloropropene	542756	
1,3-Propane sultone	1120714	
1,4-Butanediol dimethanesulfonate	55981	
1,4-Dichloro-2-butene	764410	
1,4-Dioxane	123911	
1,6-Dinitropyrene	42397648	
1,8-Dinitropyrene	42397659	
1-[(5-Nitrofurfurylidene)amino]-2-imidazolidinone	555840	
1-Amino-2-methylanthraquinone	82280	
1-Chloro-4-(trifluoromethyl)benzene [PCBTF]	98566	
1-Naphthylamine	134327	
1-Nitropyrene	5522430	
2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole	3570750	
2,2,4-Trimethylpentane	540841	
2,3,3',4,4',5,5'-HEPTACHLORBIPHENYL (PCB 189)	39635319	
2,3,3',4,4',5-HEXACHLOROBIPHENYL (PCB 156)	38380084	
2,3,3',4,4',5'-HEXACHLOROBIPHENYL (PCB 157)	69782907	
2,3,3',4,4'-Pentachlorobiphenyl {PCB 105}	32598144	
2,3',4,4',5,5'-HEXACHLOROBIPHENYL (PCB 167)	52663726	
2,3,4,4',5-PENTACHLOBIPHENYL (PCB114)	74472370	
2,3',4,4',5-PENTACHLOROBIPHENYL (PCB 118)	31508006	
2,3',4,4',5'-PENTACHOROBIPHENYL (PCB 123)	65510443	
2,3,4,6,7,8-Hexachlorodibenzofuran	60851345	
2,3,4,6-Tetrachlorophenol	58902	
2,3,4,7,8-Pentachlorodibenzofuran	57117314	
2,3,7,8-Tetrachlorodibenzofuran	51207319	
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	1746016	

2,3-Dibromo-1-propanol	96139
2,3-Dichloropropene	78886
2,4,5-Trichlorophenol	95954
2,4,6-Trichlorophenol	88062
2,4-Diaminoanisole	615054
2,4-Diaminoanisole sulfate	39156417
2,4-Diaminotoluene	95807
2,4-Dichlorophenol	120832
2,4-Dimethylphenol {2,4-Xylenol}	105679
2,4-Dinitrophenol	51285
2,4-Dinitrotoluene	121142
2,4-Dinitrotoluene, sulfurized	1326416
2,6-Dinitrotoluene	606202
2,6-Xylidene	87627
2-Acetylaminofluorene	53963
2-Amino-3-methyl-9H-pyrido(2,3-b) indole {MeA-alpha-C}	68006837
2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole	712685
2-Aminoanthraquinone	117793
2-Chloroacetophenone	532274
2-CHLOROPHENOL	95578
2-Methyl naphthalene	91576
2-Methyl-1-nitroanthraquinone (uncertain purity)	129157
2-Methylaziridine	75558
2-Methylcyclopentadienyl manganese tricarbonyl	12108133
2-Methylacetonitrile	75865
2-Methylpyridine	109068
2-Naphthylamine	91598
2-Nitrofluorene	607578
2-Nitrophenol	88755
2-Nitropropane	79469
2-Phenylphenol	90437
3-(N-Nitrosomethylamino)propionitrile	60153493
3,3',4,4',5,5'-HEXACHLOROBIPHENYL (PCB 169)	32774166
3,3',4,4',5-PENTACHLOROBIPHENYL (PCB 126)	57465288
3,3',4,4'-TETRACHLOROBIPHENYL (PCB77)	32598133
3,3'-Dichloro-4,4'-diaminodiphenyl ether	28434868
3,3'-Dichlorobenzidine	91941
3,3'-Dimethoxybenzidine	119904
3,3'-Dimethoxybenzidine dihydrochloride	20325400
3,3'-Dimethylbenzidine {o-Tolidine}	119937
3,3'-Dimethylbenzidine dihydrochloride	612828
3,4,4',5-TETRACHLOROBIPHENYL (PCB 81)	70362504
3-Amino-9-ethylcarbazole hydrochloride	6109973
3-Chloro-2-methylpropene	563473
3-Methylcholanthrene	56495
4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone {NNK}	64091914
4,4'-Diaminodiphenyl ether	101804
4,4'-Isopropylidenediphenol	80057
4,4'-Methylene bis (N,N-dimethyl) benzenamine	101611
4,4'-Methylene bis(2 Chloroaniline) (MOCA)	101144
4,4'-Methylene bis(2-methylaniline)	838880
4,4'-Methylenedianiline	101779
4,4'-Thiodianiline	139651
4,6-Dinitro-o-cresol	534521
4-Aminobiphenyl	92671
4-Chloro-o-phenylenediamine	95830
4-Dimethylaminoazobenzene	60117
4-Nitrobiphenyl	92933
4-Nitrophenol	100027
4-Nitropyrene	57835924
4-Vinyl-1-cyclohexene diepoxide	106876
4-Vinylcyclohexene	100403

5-(Morpholinomethyl)-3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone	139913
5-Methoxypsoralen	484208
5-Methylchrysene	3697243
5-Nitroacenaphthene	602879
5-Nitro-o-anisidine	99592
6-Nitrochrysene	7496028
7,12-Dimethylbenz[a]anthracene	57976
7H-Dibenzo[c,g]carbazole	194592
A-alpha-C {2-Amino-9H-pyrido[2,3-b]indole}	26148685
Acenaphthene	83329
Acenaphthylene	208968
Acetaldehyde	75070
Acetamide	60355
Acetochlor	34256821
Acetohydroxamic acid	546883
Acetonitrile	75058
Acetophenone	98862
Acifluorfen	62476599
Acrolein	107028
Acrylamide	79061
Acrylic acid	79107
Acrylonitrile	107131
<b>Actinolite</b>	<b>77536664</b>
Actinomycin D	50760
Adriamycin	23214928
AF-2	3688537
Aflatoxins	1000
Alachlor	15972608
Aldrin	309002
all-trans-Retinoic acid	302794
Allyl alcohol	107186
Allyl chloride	107051
alpha-chlorinated Toluenes	1205
alpha-Hexachlorocyclohexane	319846
Alprazolam	28981977
Aluminum	7429905
Aluminum oxide (fibrous)	1344281
Amikacin sulfate	39831555
Aminoglutethimide	125848
Aminopterin	54626
Amitrole	61825
Ammonia	7664417
Ammonium nitrate	6484522
Ammonium sulfate	7783202
<b>Amosite</b>	<b>12172735</b>
Analgesic mixtures containing phenacetin	1005
Androgenic (anabolic) steroids	1010
Aniline	62533
<b>Aniline hydrochloride</b>	<b>142041</b>
<b>Anthophyllite</b>	<b>77536675</b>
Anthracene	120127
Antimony	7440360
Antimony trioxide	1309644
Aramite	140578
Arsenic	7440382
<b>Arsenic acid</b>	<b>7778394</b>
Arsenic compounds (inorganic)	1016
Arsenic compounds (other than inorganic)	1017
<b>Arsenic pentoxide</b>	<b>1303282</b>
<b>Arsenic trioxide</b>	<b>1327533</b>
Arsine	7784421
Asbestos	1332214

Aspirin	50782
Auramine	492808
Azaserine	115026
Azathioprine	446866
Azobenzene	103333
Barium	7440393
Barium chromate	10294403
Benz[a]anthracene	56553
Benzal chloride	98873
Benzamide	55210
Benzene	71432
Benzidine (and its salts)	92875
Benzidine-based dyes	1020
Benzo[a]pyrene	50328
Benzo[b]fluoranthene	205992
Benzo[e]pyrene	192972
Benzo[g,h,i]perylene	191242
Benzo[j]fluoranthene	205823
Benzo[k]fluoranthene	207089
Benzofuran	271896
Benzoic trichloride	98077
Benzoyl chloride	98884
Benzoyl peroxide	94360
Benzphetamine hydrochloride	5411223
Benzyl chloride	100447
Benzyl violet 4B	1694093
Beryllium	7440417
Beryllium oxide	1304569
Beryllium sulfate	13510491
Beryllium sulfate (tetrahydrate)	7787566
beta-Butyrolactone	3068880
beta-Hexachlorocyclohexane	319857
beta-Propiolactone	57578
Betel quid with tobacco	1025
Biphenyl	92524
Bis(2-chloro-1-methylethyl) ether	108601
Bis(2-chloroethyl) ether {DCEE}	111444
Bis(2-ethylhexyl) adipate	103231
Bis(chloromethyl) ether	542881
Bischloroethyl nitrosourea	154938
Bitumens, extracts of steam-refined and air-refined bitumens	1030
Biuret	108190
Bleomycins	1035
Bromate	15541454
Bromine	7726956
Bromine Pentafluoride	7789302
Bromodichloromethane	75274
Bromoform	75252
Bromoxynil	1689845
Butyl acrylate	141322
Butyl benzyl phthalate	85687
Butylated hydroxyanisole {BHA}	25013165
Butyraldehyde	123728
C. I. Acid Green 3	4680788
C. I. Basic Green 4	569642
C. I. Basic Red 1	989388
C. I. Basic Red 9 monohydrochloride	569619
C. I. Disperse Yellow 3	2832408
C.I. Direct Blue 218 [PAH-Derivative/Related, POM]	28407376
Cadmium	7440439
Cadmium chloride	10108642
Cadmium succinate	141004

Calcium arsenate	7778441
Calcium chromate	13765190
Calcium cyanamide	156627
Calcium cyanide	592018
Caprolactam	105602
Captafol	2425061
Captan	133062
Carbaryl	63252
Carbon black extract	1050
Carbon disulfide	75150
Carbon monoxide	630080
Carbon Monoxide [Criteria Pollutant]	42101
Carbon tetrachloride	56235
Carbon tetrafluoride	75730
Carbonyl sulfide	463581
Carboplatin	41575944
Carrageenan (degraded)	1055
Catechol	120809
Ceramic fibers (man-made)	1056
Chenodiol	474259
Chloramben	133904
Chlorambucil	305033
Chloramphenicol	56757
Chlorethazine hydrochloride	1620219
Chlordane	57749
Chlordecone {Kepone}	143500
Chlordimeform	6164983
Chlorendic acid	115286
Chlorinated Fluorocarbon {CFC-113} {1,1,2-Trichloro-1,2,2-trifluoroethane}	76131
Chlorinated paraffin	108171262
Chlorine	7782505
Chlorine dioxide	10049044
Chloroacetic acid	79118
Chlorobenzene	108907
Chlorobenzenes	1058
Chlorobenzilate	510156
Chlorodibromomethane	124481
Chlorodifluoromethane {Freon 22}	75456
Chloroform	67663
Chloromethyl methyl ether (technical grade)	107302
Chlorophenols	1060
Chlorophenoxy herbicides	1065
Chloropicrin	76062
Chloroprene	126998
Chlorothalonil	1897456
Chromium	7440473
Chromium (III)	16065831
Chromium trioxide	1333820
Chromium, hexavalent	18540299
Chrysene	218019
Chrysotile	12001295
Cinnamyl anthranilate	87296
Cisplatin	15663271
Citrus Red No. 2	6358538
Clomiphene citrate	50419
Coal tars	8007452
Cobalt	7440484
Cobalt [II] oxide	1307966
Cobalt [III] oxide	1308061
Cobalt acetate (tetrahydrate)*	71487
Cobalt carbonate	513791
Cobalt carbonyl	10210681

Cobalt chloride (hexahydrate)	7646799
Cobalt compounds, insoluble	1216
Cobalt hydrocarbonyl	16842038
Cobalt hydroxide	21041930
Cobalt nitrate (hexahydrate)	10141056
Cobalt octoate	136527
Cobalt oxalate	814891
Cobalt sulfate	10124433
Cobalt sulfate (heptahydrate)	10026241
Cobalt sulfate and other soluble cobalt compounds	1217
Cobalt sulfide	1317426
Coke Oven Emissions	1066
Conjugated estrogens	1068
Copper	7440508
Creosotes	1070
Cresols (mixtures of) {Cresylic acid}	1319773
Crocidolite	12001284
Crotonaldehyde	4170303
Cumene	98828
Cumene hydroperoxide	80159
Cupferron	135206
Cyanazine	21725462
Cyanide compounds	1073
CYANIDE COMPOUNDS [Inorganic]	57125
Cycasin	14901087
Cyclohexane	110827
Cyclohexanol	108930
Cycloheximide	66819
Cyclophosphamide	50180
Cyhexatin	13121705
Cytarabine	147944
D and C Orange No. 1	3468631
D and C Red No. 19	81889
D and C Red No. 8	2092560
D and C Red No. 9	5160021
Dacarbazine	4342034
Daminozide	1596845
Danazol	17230885
Daunomycin	20830813
Daunorubicin hydrochloride	23541506
DDT {1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane}	50293
Decabromodiphenyl oxide	1163195
Di(2-ethylhexyl) phthalate	117817
Dialkylnitrosamines	1075
Diallate	2303164
Diaminotoluenes (mixed isomers)	1078
Diazomethane	334883
Dibenz[a,h]acridine	226368
Dibenz[a,h]anthracene	53703
Dibenz[a,j]acridine	224420
Dibenzo[a,e]pyrene	192654
Dibenzo[a,h]pyrene	189640
Dibenzo[a,i]pyrene	189559
Dibenzo[a,l]pyrene	191300
Dibenzofuran	132649
Dibenzofurans (chlorinated) {PCDFs} [Treated as 2378TCDD for HRA]	1080
Dibutyl phthalate	84742
Dichlorobenzenes (mixed isomers)	25321226
Dichlorodifluoromethene (Freon 12)	75718
Dichlorodiphenyldichloroethane {DDD}	72548
Dichlorodiphenyldichloroethylene {DDE}	72559
Dichlorofluoromethane {Freon 21}	75434

Dichlorophenoxyacetic acid, salts and esters {2,4-D}	94757
Dichlorovos {DDVP}	62737
Dicofol	115322
Dieldrin	60571
Dienestrol	84173
Diepoxybutane	1464535
Diesel engine exhaust, particulate matter (Diesel PM)	9901
Diesel engine exhaust, total organic gas	9902
Diethanolamine	111422
Diethyl phthalate	84662
Diethyl sulfate	64675
Diethylene glycol	111466
Diethylene glycol dimethyl ether	111966
Diethylene glycol monobutyl ether	112345
Diethylene glycol monoethyl ether	111900
Diethylene glycol monomethyl ether	111773
Diethylstilbestrol	56531
Diglycidyl resorcinol ether {DGRE}	101906
Dihydrosafrole	94586
<b>Diisocyanurate</b>	<b>1226</b>
Dimethyl carbamoyl chloride	79447
Dimethyl formamide	68122
Dimethyl phthalate	131113
Dimethyl sulfate	77781
Dimethylamine	124403
Dimethylvinylchloride {DMVC}	513371
Dinitrobenzenes (mixtures of)	25154545
Dinitrotoluenes (mixed isomers)	25321146
Dinocap	39300453
Dinoseb	88857
Dioxins, total, w/o individ. isomers reported {PCDDs} [Treat as 2378TCDD for HRA	1086
Dioxins, total, with individ. isomers also reported {PCDDs}	1085
Diphenylhydantoin	630933
Dipropylene glycol	25265718
Dipropylene glycol monomethyl ether	34590948
Direct Black 38	1937377
Direct Blue 6	2602462
Direct Brown 95 (technical grade)	16071866
Disperse Blue 1	2475458
Doxycycline	564250
Environmental Tobacco Smoke	1090
Epichlorohydrin	106898
Epoxy resins	1091
Ergotamine tartrate	379793
Erionite	12510428
Estradiol 17 beta	50282
Estrogens, non-steroidal	1095
Estrogens, steroidal	1100
Estrone	53167
Ethinyl estradiol	57636
Ethyl acrylate	140885
Ethyl benzene	100414
Ethyl chloride {Chlorethane}	75003
Ethyl chloroformate	541413
Ethyl methanesulfonate	62500
Ethylene	74851
Ethylene dibromide {EDB}	106934
Ethylene dichloride {EDC}	107062
Ethylene glycol	107211
Ethylene glycol diethyl ether	629141
Ethylene glycol dimethyl ether	110714
Ethylene glycol monobutyl ether	111762



Ethylene glycol monoethyl ether	110805
Ethylene glycol monoethyl ether acetate	111159
Ethylene glycol monomethyl ether	109864
Ethylene glycol monomethyl ether acetate	110496
Ethylene glycol monopropyl ether	2807309
Ethylene oxide	75218
Ethylene thiourea	96457
Ethyleneimine {Aziridine}	151564
Etoposide	33419420
Etretinate	54350480
Fluometuron	2164172
Fluoranthene	206440
Fluorene	86737
Fluorides	1101
Fluorocarbons (brominated)	1103
Fluorocarbons (chlorinated)	1104
Fluorouracil	51218
Fluoxymesterone	76437
Flutamide	13311847
Folpet	133073
Formaldehyde	50000
Furan	110009
Furazolidone	67458
Furmecyclox	60568050
<b>Gallium arsenide</b>	<b>1303000</b>
Gasoline engine exhaust, particulate matter	9910
Gasoline engine exhaust, total organic gas	9911
Gasoline vapors	1110
Glasswool (man-made fibers)	1111
Glu-P-1 {2-Amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole}	67730114
Glu-P-2 {2-Aminodipyrido[1,2-a:3',2'-d]imidazole}	67730103
Glutaraldehyde	111308
Glycidaldehyde	765344
Glycidol	556525
Glycol ethers (and their acetates)	1115
Griseofulvin	126078
Gyromitrin	16568028
Halazepam	23092173
HC Blue 1	2784943
<b>HDI Prepolymer</b>	<b>1227</b>
Heptachlor	76448
Heptachlor epoxide	1024573
Hexachlorobenzene	118741
Hexachlorobutadiene	87683
Hexachlorocyclohexanes (mixed or technical grade)	608731
Hexachlorocyclopentadiene	77474
Hexachloroethane	67721
Hexachloronaphthalene	1335871
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydrazine	302012
Hydrazine sulfate	10034932
Hydrochloric acid	7647010
Hydrogen Cyanide	74908
<b>Hydrocyanic acid</b>	<b>191234227</b>
<b>Hydrocyanic acid</b>	<b>341972314</b>
Hydrogen bromide	10035106
Hydrogen fluoride	7664393
Hydrogen Selenide	7783075
Hydrogen sulfide	7783064
Hydroquinone	123319

Ifosfamide	3778732
Indeno[1,2,3-cd]pyrene	193395
Iodine-131	24267569
IQ {2-Amino-3-methylimidazo[4,5-f]quinoline}	76180966
Iron dextran complex	9004664
Iron pentacarbonyl	13463406
Isobutyraldehyde	78842
Isocyanates	1125
<b>Isocyanurate</b>	<b>1228</b>
Isophorone	78591
Isoprene, except from vegetative emission sources	78795
Isopropyl alcohol	67630
Isosafrole	120581
Isotretinoin	4759482
Lactofen	77501634
Lasiocarpine	303344
Lead	7439921
Lead acetate	301042
Lead chromate	7758976
Lead compounds (inorganic)	1128
Lead compounds (other than inorganic)	1129
Lead phosphate	7446277
Lead subacetate	1335326
Lindane {gamma-Hexachlorocyclohexane}	58899
Lithium carbonate	554132
Lithium citrate	919164
Lorazepam	846491
Lubricant base oils	1131
Maleic anhydride	108316
Mancozeb	8018017
Maneb	12427382
Manganese	7439965
<b>Manganese cyclopentadienyl tricarbonyl</b>	<b>12079651</b>
m-Cresol	108394
m-Dinitrobenzene	99650
Medroxyprogesterone	71589
Megestrol acetate	595335
Melphalan	148823
Menotropins	9002680
Mercaptopurine	6112761
Mercuric chloride	7487947
Mercury	7439976
Merphalan	531760
Mestranol	72333
Methacycline hydrochloride	3963959
Methane	74828
Methanol	67561
Methimazole	60560
Methotrexate	59052
Methotrexate sodium	15475566
Methoxychlor	72435
Methyl acrylate	96333
Methyl bromide {Bromomethane}	74839
Methyl chloride {Chloromethane}	74873
Methyl chloroform {1,1,1-Trichloroethane}	71556
Methyl ethyl ketone	78933
Methyl hydrazine	60344
Methyl iodide {Iodomethane}	74884
Methyl isobutyl ketone {Hexone}	108101
Methyl isocyanate	624839
Methyl mercury	593748
Methyl methacrylate	80626

Methyl methanesulfon	66273
Methyl tert-butyl ether	1634044
Methylazoxymethanol	590965
Methylazoxymethanol acetate	592621
Methylene bromide	74953
Methylene chloride {Dichloromethane}	75092
Methylene diphenyl diisocyanate {MDI}	101688
Methyltestosterone	58184
Methylthiouracil	56042
Metiram	9006422
Metronidazole	443481
Michler's ketone	90948
Midazolam hydrochloride	59467968
Mineral fibers (fine: man-made)	1136
Mineral fibers (other than man-made)	1135
Mineral oils (untreated and mildly treated oils)	1140
Mirex	2385855
Misoprostol	62015398
Mitomycin C	50077
Mitoxantrone hydrochloride	70476823
Modified Hydrogen fluoride {MHF}	1141
Molybdenum trioxide	1313275
Monocrotaline	315220
Mustard gas	505602
m-Xylene	108383
N,N'-Diacetylbenzidine	613354
N,N-Dimethylaniline	121697
N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	531828
Nafarelin acetate	86220420
Nafenopin	3771195
Naphthalene	91203
n-Butyl alcohol	71363
n-Dioctyl phthalate	117840
Neomycin sulfate	1405103
Netilmicin sulfate	56391572
Nickel	7440020
Nickel acetate	373024
Nickel carbonate	3333673
Nickel carbonyl	13463393
Nickel Chloride	7718549
Nickel hydroxide	12054487
Nickel nitrate {Nickel (II) nitrate}	13138459
Nickel oxide	1313991
Nickel refinery dust	1146
Nickel subsulfide	12035722
Nickel sulfate	7786814
Nickelocene	1271289
Nicotine	54115
Niridazole	61574
Nitric acid	7697372
Nitrilotriacetic acid	139139
Nitrilotriacetic acid (salts)	1148
Nitrilotriacetic acid, trisodium salt monohydrate	18662538
Nitrobenzene	98953
Nitrofen (technical grade)	1836755
Nitrofurantoin	67209
Nitrofurazone	59870
Nitrogen Dioxide	10102440
Nitrogen mustard	51752
Nitrogen mustard hydrochloride	55867
Nitrogen mustard N-oxide	302705
Nitroglycerin	55630

Nitrous oxide	10024972
N-Methyl-N'-nitro-N-nitrosoguanidine	70257
N-Methyloacrylamide	924425
N-N-Bis(2-chloroethyl)-2-naphthylamine {Chlornaphazine}	494031
N-Nitrosodiethanolamine	1116547
N-Nitrosodiethylamine	55185
N-Nitrosodimethylamine	62759
N-Nitrosodi-n-butylamine	924163
N-Nitrosodi-n-propylamine	621647
N-Nitrosodiphenylamine	86306
N-Nitrosomethylethylamine	10595956
N-Nitrosomethylvinylamine	4549400
N-Nitrosomorpholine	59892
N-Nitroso-N-ethylurea	759739
N-Nitroso-N-methylurea	684935
N-Nitroso-N-methylurethane	615532
N-Nitrosornicotine	16543558
N-Nitrosopiperidine	100754
N-Nitrosopyrrolidine	930552
N-Nitrososarcosine	13256229
Norethisterone	68224
Norgestrel	6533002
o-Aminoazotoluene	97563
O-Anisidine	90040
o-Anisidine hydrochloride	134292
Ochratoxin A	303479
o-Cresol	95487
Octachloronaphthalene	2234131
o-Dinitrobenzene	528290
Oil Orange SS	2646175
OLEUM	8014957
Osmium tetroxide	20816120
o-Toluidine	95534
o-Toluidine hydrochloride	636215
Oxides of Nitrogen	42603
Oxides of sulfur	42401
o-Xylene	95476
Oxymetholone	434071
Oxytetracycline	79572
Ozone	10028156
PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	1151
PAHs, total, with individ. components also reported	1150
p-alpha,alpha,alpha-Tetrachlorotoluene	5216251
p-Aminoazobenzene	60093
Panfuran S	794934
p-Anisidine	104949
Paramethadione	115673
Parathion	56382
Particulate Matter	11101
Particulate Matter 1	85101
Particulate Matter 2.5 Microns or less	88101
PCBs {Polychlorinated biphenyls}	1336363
p-Chloroaniline	106478
p-Chloro-o-toluidine	1059
p-Chloro-o-toluidine	95692
p-Cresidine	120718
p-Cresol	106445
p-Dichlorobenzene	106467
p-Dinitrobenzene	100254
Penicillamine	52675
Pentachloronitrobenzene {Quintobenzene}	82688
Pentachlorophenol	87865

Pentobarbital sodium	57330
Peracetic acid	79210
Perchloroethylene {Tetrachloroethene}	127184
Perfluorooctanoic acid {PFOA} (and its salts, esters, and sulfonates)	2795393
Perylene	198550
Phenacemide	63989
Phenacetin	62442
Phenanthrene	85018
Phenazopyridine hydrochloride	94780
Phenesterin	3546109
Phenobarbital	50066
Phenol	108952
Phenoxybenzamine	59961
Phenoxybenzamide hydrochloride	63923
Phenyl glycidyl ether	122601
Phenytoin	57410
Phosgene	75445
Phosphine	7803512
Phosphoric acid	7664382
Phosphorus	7723140
Phosphorus oxychloride	10025873
Phosphorus pentachloride	10026138
Phosphorus pentoxide	1314563
Phosphorus trichloride	7719122
Phthalic anhydride	85449
Picric acid	88891
Pipobroman	54911
Plicamycin	18378897
p-Nitrosodiphenylamine	156105
Polybrominated biphenyls	1155
Polybrominated diphenyl ethers {PBDEs}	2222
Polygeenan	53973981
<b>Polymeric (Oligo) HDI</b>	<b>1221</b>
Ponceau 3R	3564098
Ponceau MX	3761533
Potassium bromate	7758012
<b>Potassium cyanide</b>	<b>151508</b>
p-Phenylenediamine	106503
Procarbazine hydrochloride	366701
Progesterone	57830
Progestins	1160
Propionaldehyde	123386
Propoxur	114261
Propylene	115071
Propylene glycol monomethyl ether	107982
Propylene glycol monomethyl ether acetate	108656
Propylene oxide	75569
Propylthiouracil	51525
p-Toluidine	106490
p-Xylene	106423
Pyrene	129000
Pyridine	110861
Quinoline	91225
Quinone	106514
Radionuclides	1165
Radon and its decay	1166
Reactive Organic Gas	16113
Reserpine	50555
Retinol/retinyl este	1167
Ribavirin	36791045
Rockwool (man-made fibers)	1168
Saccharin	81072

Safrole	94597
sec-Butyl alcohol	78922
Selenium	7782492
<b>Selenium hexafluoride</b>	<b>7783791</b>
Selenium sulfide	7446346
Shale oils	1180
Silica, crystalline	1175
<b>Silica, crystalline</b>	<b>7631869</b>
<b>Silica, crystalline (respirable), in the form of cristobalite</b>	<b>14464461</b>
<b>Silica, crystalline (respirable), in the form of quartz</b>	<b>14808607</b>
Silver	7440224
Slagwool (man-made fibers)	1181
<b>Sodium aluminum fluoride</b>	<b>15096523</b>
<b>Sodium cyanide</b>	<b>143339</b>
Sodium dichromate	10588019
<b>Sodium Fluoride</b>	<b>7681494</b>
Sodium hydroxide	1310732
Sodium o-phenylphenate	132274
Sodium saccharin	128449
Soots	1185
Sterigmatocystin	10048132
Streptomycin sulfate	3810740
Streptozotocin	18883664
Strontium chromate	7789062
Styrene	100425
Styrene oxide	96093
Sulfallate	95067
Sulfates	9960
Sulfur Dioxide	7446095
Sulfur Hexafluoride	2551624
Sulfur Trioxide	7446719
Sulfuric acid	7664939
Sulfuric Acid + Oleum	9961
Talc containing asbestiform fibers	1190
Tamoxifen citrate	54965241
t-Butyl acetate	540885
Temazepam	846504
Terephthalic acid	100210
tert-Butyl alcohol	75650
<b>tert-Butyl chromate(VI)</b>	<b>1189851</b>
Testosterone and its esters	58220
Testosterone enanthate	315377
Tetrachlorophenols	25167833
Tetrachlorvinphos	961115
Tetracycline hydrochloride	64755
Tetranitromethane	509148
Thalidomide	50351
Thallium	7440280
Thioacetamide	62555
Thioguanine	154427
Thiourea	62566
Thorium dioxide	1314201
Titanium tetrachloride	7550450
Tobacco products, smokeless	1200
Tobramycin sulfate	49842071
Toluene	108883
Toluene Diisocyanate	26471625
Toluene-2,4-diisocyanate	584849
Toluene-2,6-diisocyanate	91087
Total Heptachlorodibenzofuran	38998753
Total Heptachlorodibenzo-p-dioxin	37871004
Total Hexachlorodibenzofuran	55684941

Total Hexachlorodibenzo-p-dioxin	34465468
Total Organic Gases	43101
Total Pentachlorodibenzofuran	30402154
Total Pentachlorodibenzo-p-dioxin	36088229
Total Tetrachlorodibenzofuran	55722275
Total Tetrachlorodibenzo-p-dioxin	41903575
Toxaphene	8001352
trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl-1,3,4-oxadiazol	55738540
<b>Tremolite</b>	<b>77536686</b>
Treosulfan	299752
Triazolam	28911015
Tributyl phosphate	126738
Trichlorfon	52686
Trichloroethylene	79016
Trichlorofluoromethane {Freon 11}	75694
Triethyl phosphine	78400
Triethylamine	121448
Triethylene glycol dimethyl ether	112492
Trifluoromethane {Freon 23}	75467
Trifluralin	1582098
Trilostane	13647353
Trimethadione	127480
Trimethyl phosphate	512561
Trimehtylbenzenes	25551137
Triorthocresyl phosphate	78308
Triphenyl phosphate	115866
Triphenyl phosphite	101020
Tris(1-aziridinyl) phosphine sulfide	52244
Tris(2,3-dibromopropyl)phosphate	126727
Tris(aziridinyl)-p-benzoquinone	68768
Trp-P-1 {3-Amino-1,4-dimethyl-5H-pyrido[4,3-b]indole}	62450060
Trp-P-2 {3-Amino-1-methyl-5H-pyrido[4,3-b]indole}	62450071
Trypan blue	72571
Uracil mustard	66751
<b>Uretidione (HDI) {Uretidone}</b>	<b>23501817</b>
Urethane	51796
Urofollitropin	26995915
Valproate	99661
Vanadium (fume or dust)	7440622
Vanadium Pentoxide	1314621
Vinblastine sulfate	143679
Vincristine sulfate	2068782
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinyl fluoride	75025
Vinylidene chloride	75354
Volatile Organic Compounds (VOC)	43104
Warfarin	81812
Wood preservatives (containing arsenic and chromate)	1206
Xylene	1330207
Zinc	7440666
Zinc oxide	1314132
Zineb	12122677



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## **APPENDIX D**

# **BIOLOGICAL RESOURCES ASSESSMENT**

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September 13, 2021

Adam Ross, Vice President  
Ross and Sons  
7828 South Maple Avenue  
Fresno, California 93725

Subject: Biological Resources Assessment for the Proposed Pistachio Processing Facility  
98-acres west of West Panoche Road, Fresno County, California

Dear Mr. Ross:

The purpose of this Biological Resources Technical Memorandum is to describe and document potential impacts to biological resources—including special-status species—associated with a proposed pistachio processing facility (proposed project) on approximately 98 acres of vacant land on an approximately 316-acre parcel in western Fresno County, California (Assessors Parcel [APN] Number 019-150-64S). This technical information is provided for project review under Fresno County, California Environmental Policy Act (CEQA), and other pertinent environmental regulations. This document provides a biological resources impact analysis that reflects the current environmental setting, project design, and regulatory context.

## PROJECT DESCRIPTION

The proposed project includes construction of a pistachio processing facility that will be used by the owner to process pistachio harvest from approximately 7,500 acres of mature pistachio orchards. For the purposes of this assessment, the entire 98-acre “project site” would be disturbed/developed during proposed phased grading and construction activities. The majority of the approximately 316-acre parcel would not be modified. Phase 1 is proposed to begin construction in 2022, Phase 2 is proposed for construction between 2024 and 2027, Phase 3 is proposed for construction between 2026 and 2027, and Phase 4 is proposed for construction between 2028 and 2029. There are no project components proposed for construction outside of the project site.

## PROJECT SETTING

The approximately 98-acre project site is located north of the Annedale Avenue alignment, west of West Panoche Road and South Newcome Avenue alignment approximately 8 miles southwest of Mendota, Fresno County, California. Elevations on the project site range from approximately 290 to 300 feet above mean sea level. Primary land uses in the project vicinity are predominantly agriculture. The project site is bounded by fallow agricultural field to the south, almond orchard to the southwest, fallow field and garlic field to the west, vineyard to the northwest, melons to the north, and pomegranate orchard to the east. The project site is relatively flat; all parts of the project site had been manipulated by humans. A few agricultural ditches occur on property boundaries; no natural drainage features or wetlands are located within the project site or in the immediate vicinity.

## METHODS

### Literature Review and Records Search

LSA Senior Biologist Wendy Fisher conducted a literature review and records search on July 24, 2021, to identify the existence and potential for occurrence of sensitive or special-status plant and animal species<sup>1</sup> in the project vicinity. Federal and State lists of sensitive species were also examined. Current electronic database records reviewed included the following:

- **California Natural Diversity Data Base information (CNDDDB – RareFind 5)**, which is administered by the California Department of Fish and Wildlife (CDFW), formerly known as the California Department of Fish and Game. This database covers sensitive plant and animal species, as well as sensitive natural communities that occur in California. Records from nine 7.5' U.S. Geological Society (USGS) quadrangles surrounding the project site (*Chaney Ranch, Broadview Farms, Firebaugh, Coit Ranch, Levis, Monocline Ridge, Turney Hills, Chounet Ranch, and Hammonds Ranch*), along with a query of records within a 5-mile radius of the project site, were obtained from this database to inform the field survey.
- **California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants**, which utilizes four specific categories or “lists” of sensitive plant species to assist with the conservation of rare or endangered botanical resources. All of the plants constituting California Rare Plant Ranks (CRPR) 1A, 1B, 2A, and 2B are intended to meet the status definitions of “threatened” or “endangered” in California Endangered Species Act and the California Department of Fish and Game (CDFG) Code and are considered by CNPS to be eligible for State listing. At the discretion of the CEQA Lead Agency, impacts to these species may be analyzed as such, pursuant to the CEQA Guidelines Sections 15125(c) and 15380. Plants in Rank 3 (limited information; review list), Rank 4 (limited distribution; watch list), or that are considered Locally Unusual and Significant may be analyzed under CEQA if there is sufficient information to assess potential significant impacts. Records from the nine USGS quadrangles surrounding the project site were obtained from this database to inform the field survey.
- **United States Fish and Wildlife Service's (USFWS) Information for Planning and Conservation (IPaC) Online System**, which lists all proposed, candidate, threatened, and endangered species managed by the Endangered Species Program of the USFWS that have the potential to occur on or near a particular site. This database also lists all designated critical habitats, national wildlife refuges, and migratory birds that could potentially be impacted by activities from a proposed project. An IPaC Trust Resource Report (USFWS 2021)<sup>2</sup> was generated for the project site.

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<sup>1</sup> For the purposes of this report, the term “special-status species” refers to those species that are listed or proposed for listing under the CESA and/or FESA, California Fully Protected Species, plants with a CRPR of 1, 2, or 3, and California Species of Special Concern. It should be noted that “Species of Special Concern” is an administrative designation made by the CDFW and carries no formal legal protection status. However, Section 15380 of the CEQA Guidelines indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

<sup>2</sup> U.S. Fish and Wildlife Service. 2021. IPaC Resource List, Stamoules Site. [www.ecos.fws.gov/ipac/](http://www.ecos.fws.gov/ipac/)

- **eBird:** eBird is a real-time, online checklist program launched in 2002 by the Cornell Lab of Ornithology and National Audubon Society. It provides rich data sources for basic information on bird abundance and distribution at a variety of spatial and temporal scales. eBird occurrence records for burrowing owl (*Athene cunicularia*) from a 5-mile radius around the project site were reviewed in July 2021 (eBird 2021).<sup>3</sup>

In addition to the databases listed above, historic and current aerial imagery along with previously prepared environmental reports and land use policies related to biological resources were reviewed.

### Field Survey

LSA Senior Biologist Wendy Fisher conducted a general biological survey of the project site on July 26, 2021. The entirety of the project site was surveyed on foot or car, and all biological resources observed were noted. All plants observed during the field visit were noted, along with the habitats in which they were found. Binoculars were used to scan ruderal areas, agricultural fields, trees, and ditches, both on and adjacent to the project site in search of wildlife presence or use. Suitable habitat for any species of interest or concern was duly noted, and general site conditions were photographed (Attachment A).

## RESULTS

### Vegetation

The vast majority of the project site was being actively farmed in cantaloupe, and harvest was occurring the day of the field survey. A rectangular area encompassing a few acres located near the intersection of West Panoche Road and South Newcome Avenue along the western boundary of the project site, was ruderal (e.g., disturbed, mostly barren) and was fenced with chain link. This highly disturbed area was not apparent from review of Google Earth historic imagery. Ongoing soil disturbance (e.g., vegetation control, agricultural activities) and the resulting competitive exclusion by invasive nonnative plants limits the potential for native flora to occur within the project site.

A total of 16 vascular plant species were identified within the project site during the July 2021 field survey (Attachment B). About a dozen Mexican fan palms (*Washingtonia filifera*) were clustered on or immediately adjacent to the project site, and two solo mulberry trees line the southern boundary. The following describes the vegetation and land cover types occurring within the project site:

**Ruderal:** Areas classified as ruderal consisted mostly of barren to sparsely vegetated early successional nonnative forbs. Some of the weedy or pioneering species observed in ruderal areas of the project site included: horseweed (*Erigeron bonariensis*), five-hook bassia (*Bassia hyssopifolia*), prickly lettuce (*Lactuca serriola*), and common morning glory (*Convolvulus arvensis*). Ruderal areas of the project site were bounded by a temporary chain link fence. Included within the fence was a greenhouse and a borrow pit.

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<sup>3</sup> Ebird. 2021. [www.ebird.org/home](http://www.ebird.org/home)

**Cantaloupe Field:** More than  $\frac{3}{4}$  of the project site was being cultivated with cantaloupe at the time of the field survey. A few non-native annuals bordered the fields, and included prostrate amaranth (*Amaranthus blitoides*), and common purslane (*Portulaca oleracea*).

## Wildlife

The ruderal and agricultural vegetation occurring on the project site is considered low quality habitat for most native wildlife species. A total of three wildlife species were observed on or near the project site during the July 2021 field survey: house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), and western kingbird (*Tyrannus verticalis*). Each of these species commonly occur in and around developed areas throughout California. No small mammal burrows were observed within ruderal areas, the agricultural fields, or immediately adjacent to the project site.

Based on field observations and the location of the project site, which is surrounded by agricultural uses and roads, there are no indications that the project site functions as a wildlife movement corridor or an important stopover point for migratory species.

## Special-Status Species

Attachment C contains tables that identify special-status species known to occur, or that potentially occur in the vicinity of the project site and includes detailed information about each species' habitat and distribution, activity period, listing/status designations, and probability of occurrence within the project site boundaries. These species were compiled from the CNPS, CNDDDB, and IPaC records search from a 5-mile radius around the project site and from LSA's extensive knowledge and experience in the region.

Historic anthropogenic disturbances have greatly altered the natural hydrologic regimes and have either eliminated or greatly impacted the pre-settlement habitats needed to support the special-status plant species identified in the CNDDDB and CNPS queries. As such, the specific habitats, soil substrates or "micro-climates" necessary for special-status plant species to occur are absent within the boundaries of the project site. Based on site observations coupled with the habitat suitability analysis, no special-status plant species are expected to occur within the project site.

There are no known occurrences of any special-status animal species in the project site, and none were observed during the July 2021 field survey. Nonetheless, trees on or adjacent to the project site provide marginally suitable habitat for various tree nesting birds and bats. Foraging habitat is extremely limited since small mammals are virtually absent. Birds and raptors are protected while nesting under the CDFG Code and the federal Migratory Bird Treaty Act.

The evaluation of special-status species occurrence within the project site was based on a habitat suitability analysis. It did not include exhaustive surveys to determine their presence or absence but did include direct observation of on-site and off-site conditions and a review of the available recorded occurrence data from the area to conclude whether or not a particular species could be expected to occur. Based on this analysis, it is unlikely that any of the special-status plant or wildlife species listed in Attachment C occur within the project site. Significant adverse impacts to special-

status wildlife species are not anticipated with the implementation of the recommended impact avoidance measures described in further detail below.

### **Wetlands and Potential Jurisdictional Drainages**

There are no records of wetlands or natural drainage features within the project site. Man-made agricultural ditches on the boundaries of the project site would not be considered jurisdictional. No potentially jurisdictional drainage features, wetlands, or riparian areas were observed on the project site.

### **Regional Habitat Conservation Plans and Local Policies**

The PG&E San Joaquin Valley Operation and Maintenance (O&M) Habitat Conservation Plan (HCP) was approved in 2007 and covers portions of nine counties, including Fresno County and the City of Fresno. This HCP covers PG&E activities which occur as a result of ongoing O&M that would have an adverse impact on any of the 65 covered species and provides incidental take coverage from the USFWS and CDFW. The project site is not located within the covered area of any other HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Therefore, the project would not conflict with the provisions of the PG&E HCP and the proposed project and would have no impact.

## **IMPACT FINDINGS**

### **Sensitive Vegetation Communities and Critical Habitat**

There is no designated or proposed critical habitat for any federally listed species within the project site. The proposed project would not result in any adverse impacts to critical habitats or sensitive natural communities. No mitigation is required.

### **Wetlands and Jurisdictional Aquatic Resources**

The proposed project would not impact any jurisdictional wetlands, riparian areas, or drainage features. No mitigation is required.

### **Special-Status Species**

No special-status plant species are expected to occur within the project site or to be adversely affected by the proposed project.

While no special-status animal species (or signs of such species) were observed on-site during the July 2021 survey, over a dozen mature palm and mulberry trees occur on or immediately adjacent to the project site. These trees provide suitable nesting habitat for a variety of birds, including Loggerhead shrike (*Lanius ludovicianus*). Potentially significant direct and indirect impacts, including mortality, harassment, or other forms of incidental take, could occur if construction-related damage or removal of these trees occurs during phased construction disturbance results. Implementation of Mitigation Measure BIO-1 (see below) is recommended to address potential impacts on tree nesting birds.

No other special-status species were determined to have a moderate or high probability of occurrence on the project site (refer to Attachment C). The removal of the ruderal habitat documented on the project site is not anticipated to substantially impact the population sizes of any special-status animal species given the context and setting of the project site and additional habitats for such species in the project vicinity.

### *Nesting Birds*

The project site and immediate vicinity contain trees that provide suitable nesting habitat for a variety of native and migratory bird species, potentially including red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), or great horned owl (*Bubo virginianus*). Ground-nesting birds such as the killdeer (*Charadrius vociferus*) and western meadowlark (*Sturnella neglecta*) could possibly use the barren ruderal areas or agricultural road shoulders for nesting. Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of “take” by CDFW. To ensure compliance with the Federal Migratory Bird Treaty Act and CDFG Code Sections 3500–3516, pre-construction nesting bird surveys are recommended to occur prior to any ground disturbance or construction activities planned to occur during the nesting bird season (February 1 through September 30).

If unmitigated or not avoided, these potential direct and indirect impacts to nesting birds could be considered potentially significant. However, implementation of Mitigation Measure BIO-2, included below, would avoid, minimize, or mitigate any potential impacts to nesting birds to less-than-significant levels.

### *Roosting Bats*

Section 2000 and 4150 of the CDFG Code states that it is unlawful to take or possess a number of species, including bats, without a license or permit as required by Section 3007. Additionally, Title 14 of the California Code of Regulations states it is unlawful to harass, herd, or drive a number of species, including bats. To harass is defined as “an intentional act which disrupts an animal's normal behavior patterns, which includes, but is not limited to, breeding, feeding or sheltering”.

Should removal of mature trees be required, the proposed project could result in mortality of native bats that may be roosting within, possibly including the special-status pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinum townsendii*). If unmitigated or not avoided, these potential direct and indirect impacts to roosting bats could be considered potentially significant. However, implementation of Mitigation Measure BIO-2, included below, would avoid, minimize, or mitigate any potential impacts to bat species to less-than-significant levels.

### **Wildlife Movement**

The project is surrounded by agriculture, existing residential developments, roads, and other anthropogenic land uses. The wildlife species that occur in the project vicinity are adapted to the urban-wildland interface. The noise, vibration, light, dust, or human disturbance within construction areas would only temporarily deter wildlife from using areas in the immediate vicinity of construction activities. These indirect effects could temporarily alter migration behaviors, territories, or foraging habitats in select areas. However, because these are temporary effects, it is likely that



wildlife already living and moving in close proximity to urban development would alter their normal functions for the duration of the project construction and then re-establish these functions once all temporary construction effects have been removed. The proposed project would not place any permanent barriers within any known wildlife movement corridors or interfere with habitat connectivity. No adverse effects on wildlife movement are anticipated, and no mitigation is required.

## RECOMMENDED AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

The following measures are recommended to be implemented to avoid or minimize impacts to nesting birds.

**Mitigation Measure BIO-1**      **Nesting Bird Surveys and Active Nest Avoidance.** Any initial ground disturbance or tree pruning or removal should take place outside of the active nesting bird season (i.e., February 1–September 30), when feasible, to avoid impacts to nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Should phased construction require tree removal or initial ground disturbance to ruderal areas, a qualified biologist shall conduct a nesting bird survey no more than 15 days prior to each phase of clearing activities. If nesting birds are discovered during preconstruction surveys, the biologist shall identify an appropriate buffer where no clearing, grading, or construction activities with potential to have direct or indirect impacts on the nesting bird(s) are allowed to take place until after the nest is no longer active (e.g., the young birds have fledged), or as otherwise determined by the qualified biologist.

**Mitigation Measure BIO-2**      **Surveys for Roosting Bats and Avoidance of Bat Roosts.** Any tree pruning or removal could disturb roosting bats, should they be present in any of the trees located within or immediately adjacent to the project site. To avoid potential impact to maternity bat roosts, pruning or removal of mature trees should occur outside of the period between April 1 and September 30, if feasible. If pruning or removal of mature trees is to occur between April 1 and September 30, a preconstruction survey within 30 days of construction should be completed in search of day-roosting bats, dead carcasses, fecal matter, staining of guano. If no evidence is found, tree pruning or removal can commence without harm to bats. Should the preconstruction survey show evidence of non-breeding day-roosts for bats, the bats can be humanely evicted via two-stage removal of trees, under the direction of a qualified biologist to ensure that no harm or “take” of any bats occurs. If a maternity colony is detected, the biologist shall identify an appropriate buffer (50-100 feet) where no clearing, grading, or construction activities with potential to have direct or indirect

impacts on the roosting bat(s) are allowed to take place. Construction activities, including tree pruning or removal, can commence once the roost is deemed no longer active by the qualified biologist


## CONCLUSION

The project site is strictly upland in nature with highly manipulated agricultural fields or disturbed bare ground with minimal ruderal weedy vegetation. Based on field observations coupled with the habitat suitability analysis conducted for this assessment, the proposed project has low to moderate potential to impact one regionally occurring special-status wildlife species. The proposed project is not anticipated to impact any special-status plant species, natural communities, or other habitats of concern. With implementation of the recommended avoidance, minimization, and mitigation measures, no significant impacts on biological resources are anticipated.

If you have any questions regarding this letter report, please contact me at (559)490-1221.

Sincerely,

**LSA Associates, Inc.**



Wendy C. Fisher  
Senior Biologist

Attachment: Attachment A: Representative Site Photographs  
Attachment B: Vascular Plant Species Observed  
Attachment C: Summary of Special-Status Species

**ATTACHMENT A**

**REPRESENTATIVE SITE PHOTOGRAPHS**



Photograph #1 (above). Cantoupes were actively being harvested on the western three quarters of the site during the July 2021 field visit. Photograph #2 (below). The eastern third of the site was mostly barren with a single borrow pit located in the center of the ruderal area.







Photograph #3 (above). Irrigation ditches line the agricultural field and ruderal areas of the project site. Photograph #4 (below). Two solitary mulberry trees were identified along the sites southern boundary.





Photographs #5 (above) and #6 (below). Within agriculture and ruderal land uses, ag equipment storage and beekeeping were evident within the project site.



## ATTACHMENT B

## VASCULAR PLANT SPECIES OBSERVED

## Plant Species Observed at the Stamoules Pistachio Site, July 26, 2021\*

Family	Species Name	Common Name
<b>DICOTS</b>		
Amaranthaceae	<i>Amaranthus blitoides</i>	prostrate amaranth
Asteraceae	<i>Erigeron bonariensis</i>	hairy fleabane
	<i>Lactuca serriola</i>	prickly lettuce
	<i>Sonchus asper</i> ssp. <i>asper</i>	prickly sow thistle
Chenopodiaceae	<i>Bassia hyssopifolia</i>	five hook Bassia
	<i>Chenopodium album</i>	white goosefoot
	<i>Salsola tragus</i>	Russian thistle
Convolvulaceae	<i>Convolvulus arvensis</i>	common morning-glory
Cucurbitaceae	<i>Cucurmis melo</i>	Cultivated cantaloupe
Moraceae	<i>Morus alba</i>	white mulberry
Portulacaceae	<i>Portulaca oleracea</i>	common purslane
Solanaceae	<i>Solanum</i> sp.	nightshade
Tribulaceae	<i>Tribulus terrestris</i>	puncture vine
<b>MONOCOTS</b>		
Palmae	<i>Washingtonia filifera</i>	Mexican fan palm
Poaceae	<i>Echinochloa crus-galli</i>	barnyard grass
	<i>Leptochloa fascicularis</i>	wild oats

## **ATTACHMENT C**

### **SUMMARY OF SPECIAL-STATUS SPECIES**



**Table C-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity**

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence and Rationale
San Benito Onion	<i>Allium howellii</i> var. <i>sanbenitense</i>	US: – CA: – CNPS 1B.3	Occurs in openings in often on steep slopes of clay soils in chaparral, valley and foothill grassland between 1,280 -4,170 ft in elevation.	March - June	Not expected. Although clay soils are present, the highly disturbed site does not support suitable habitat for this species.
Heartscale	<i>Atriplex cordulata</i> var. <i>cordulata</i>	US: – CA: – CNPS: 1B.2	Annual herb occurring in chenopod scrub, meadows, seeps and valley/foothill grasslands (sandy) in saline or alkaline soil between 0 and 1,837 ft in elevation. Found in the Central Valley counties.	April- October	Not expected. Saline-alkaline soils are absent. The highly disturbed site does not support suitable habitat for this species.
Lost Hills crownscale	<i>Atriplex coronata</i> var. <i>vallicola</i>	US: – CA: –	Occurs in powdery, alkaline soils that are vernal moist in chenopod scrub, valley and foothill grassland, and vernal pools. Associated species are <i>Frankenia</i> , <i>Atriplex</i> ss; and <i>Distichlis</i> between 150 – 2,900 ft. in elevation.	April - August	Not expected. Suitable habitat is absent from the project site for this species. None of the associated species are present.
Lesser Saltscale	<i>Atriplex minuscula</i>	US: – CA: – CNPS 1B.1	Occurs in upland playas of shadscale scrub, alkali sink and valley grasslands in California’s Central valley between Kern County and Contra Costa County at less than 328 ft. in elevation.	April - October	Not expected. The highly disturbed site does not support suitable habitat for this species.
Subtle Orache	<i>Atriplex subtilis</i>	US: – CA: – CNPS 1B.2	Occurs in saline depressions between Kern County and Stanislaus Counties in California’s central valley less than 230 ft. in elevation.	June - October	Not expected. The highly disturbed site does not support suitable habitat for this species.
Hall’s Tarplant	<i>Deinandra halliana</i>	US: – CA: – CNPS: 1B.2	Occurs in open slopes and sink edges of shadscale scrub, foothill woodland, and valley grassland on the far west side of the Central Valley and in the inner coast range of San Luis Obispo Counties though Monterey Counties between 984 – 3280 ft. in elevation.	April - May	Not expected. The highly disturbed site does not support suitable habitat for this species.
Recurved Larkspur	<i>Delphinium recurvatum</i>	US: – CA: – CNPS: 1B.2	Occurs in shadscale scrub, foothill woodland, and valley grassland with wide range of elevations between Los Angeles to Butte Counties.	March – June	Not expected. The highly disturbed site does not support suitable habitat for this species.

**Table C-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity**

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence and Rationale
Spiny-sealed button-celery	<i>Eryngium spinosepalum</i>	US: – CA: – CNPS: 1B.2	Annual/perennial herb occurring in valley/foothill grasslands and vernal pools between 262 and 3,198 ft in elevation. Found in Central Coast and Central Valley counties.	April- June	Not expected. The highly disturbed site does not support suitable habitat for this species
Alkali-sink goldfields	<i>Lasthenia chrysantha</i>	US: – CA: – CNPS: 1B.1	Annual herb occurring in alkaline vernal pools between 0 and 656 ft in elevation. Found in Central Valley counties.	February- June	Not expected. The highly disturbed site does not support suitable habitat for this species.
Pale-yellow Layia	<i>Layia heterotricha</i>	US: – CA: – CNPS: 1B.1	Annual herb occurring in wetland-riparian, shadscale scrub and valley grassland between Ventura and Fresno Counties at elevation.	March - June	Not expected. The highly disturbed site does not support suitable habitat for this species
Munz’s Tidy-Tips	<i>Layia munzii</i>	US: – CA: – CNPS: 1B.2	Annual occurring in alkaline clay soils of the southern San Joaquin Valley between 540-2,625 ft. in elevation.	March - April	Not expected. The highly disturbed site does not support suitable habitat for this species.
Panoche Peppergrass	<i>Lepidium jaredii ssp. album</i>	US: – CA: – CNPS: 1B.2	Annual occurring in alkali bottoms, slopes, washes, dry hillsides, vertic clay, acidic and/or gypsoferous soils in the southwestern San Joaquin Valley and southeastern inner coast range between 1,640 – 2,300 ft. in elevation.	March - April	Not expected. The highly disturbed site does not support suitable habitat for this species.
Showy Golden Madia	<i>Madia radiata</i>	US: – CA: – CNPS: 1B.1	Annual occurring in grassy or open slopes of vertic clay and rarely serpentinite soils between 65 -3,900 ft. in elevation.	March - May	Not expected. The highly disturbed site does not support suitable habitat for this species
San Joaquin Woolly Threads	<i>Monolopia congdonii</i>	US: –E CA: – CNPS: 1B.2	Annual occurring in grassland and sandy soils in the southern San Joaquin Valley between 295-2,3000 ft. in elevation.	February - May	Not expected. The highly disturbed site does not support suitable habitat for this species. There are no known historical records of occurrence in the project vicinity and suitable habitat is absent within the project site.
Panoche navarretia	<i>Navarretia panochensis</i>	US: CA: – CNPS: 1B.3	Annual herb newly rediscovered from eastern Fresno and western San Benito Counties.	April - June	Not expected. The highly disturbed site does not support suitable habitat for this species.
Sanford's arrowhead	<i>Sagittaria sanfordii</i>	US: – CA: – CNPS: 1B.2	Perennial rhizomatous herb (emergent) occurring in marshes and swamps between 0 and 2,132 ft in elevation. Found throughout California counties.	May- October	Not expected. The highly disturbed site does not support suitable habitat for this species. The highly maintained onsite ditches were mostly barren of vegetation.

**Table C-1: Special-Status Plant Species Potentially Occurring in the Project Vicinity**

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence and Rationale
Chaparral Ragwort	<i>Senecio aphanactis</i>	US: – CA: – CNPS: 2B.2	Annual occurring in alkaline flats and dry open rocky areas in central and southern California coast ranges to Baja California, at elevations between 32 -1,800 ft. in elevation.	January - April	Not expected. The highly disturbed site does not support suitable habitat for this species.

<sup>1</sup>Project vicinity = Project site plus a 5-mile buffer

Status: Federal Endangered (FE), Federal Threatened (FT), Federal Candidate (FC), Federal Proposed (FP, FPE, FPT), Federal Delisted (FD), California Endangered (CE), California Threatened (CT), California Species of Special Concern (SSC), California Fully Protected Species (CFP), California Special Plant (CSP), California Special Animal (CSA)

California Native Plant Society Designations:

1B = Rare, threatened, or endangered in California and elsewhere  
 2B = Rare, threatened, or endangered in California, but not elsewhere  
 0.1 = seriously endangered  
 0.2 = fairly endangered

CA = California  
 CNPS = California Native Plant Society  
 ft = foot/feet  
 m = meter/meters  
 mi = mile/miles  
 US = United States

**Table C-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity**

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
<b>INVERTEBRATES</b>				
Crotch bumble bee	<i>Bombus crotchii</i>	US: -- CA: CE	Occurs primarily in California through most of southwestern California and uncommonly in Baja California and southwest Nevada. Inhabits open grassland and scrub habitat, nests underground.	Not expected. There are no known historical records of occurrence in the project vicinity. <sup>1</sup> The disturbed land uses on the project site offer no suitable habitat for this species.
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	US: FT CA: –	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not expected. There are no known historical records of occurrence in the project vicinity. <sup>1</sup> The disturbed land uses on the project site offer no suitable habitat for this species.
<b>AMPHIBIANS</b>				
Northern California legless lizard	<i>Anniella pulchra</i>	US: -- CA: SSC	Endemic from the west central California including parts of the central valley and coast range from sea level to around 5,900 ft. in elevation. Occurs in moist warm loose soil with vegetative cover and moisture.	Not expected. There are no known historical records of occurrence in the project vicinity. <sup>1</sup> The disturbed land uses on the project site offer no suitable habitat for this species
Foothill yellow-legged frog	<i>Rana boylei</i>	US: – CA: CE	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Not expected. There are no known historical records of occurrence in the project vicinity. <sup>1</sup> The disturbed land uses on the project site offer no suitable habitat for this species
California red-legged frog	<i>Rana draytonii</i>	US: FT CA: SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not expected. There are no known historical records of occurrence in the project vicinity. <sup>1</sup> The disturbed land uses on the project site offer no suitable habitat for this species
Western spadefoot	<i>Spea hammondi</i>	US: – CA: SSC	Occurs primarily in grassland and other relatively open habitats. Found in elevations ranging from sea level to 4,500 ft. Requires temporary pools for breeding.	Not expected. Suitable scrub habitats are absent from the project and vicinity.
<b>REPTILES</b>				
California glossy snake	<i>Arizona elegans occidentalis</i>	US: – CA: SSC	This nocturnal snake in habits arid scrub, rocky washes, grasslands and chaparral from the eastern part of the San Francisco Bay area south to the northwestern Baja California; absent along the central coast.	Not expected. There are no known historical records of occurrence in the project vicinity. <sup>1</sup> The disturbed land uses on the project site offer no suitable habitat for this species.
Western pond turtle	<i>Emys marmorata</i>	US: – CA: SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Not expected. There is one known record of occurrence in the project vicinity (CNDDDB 2001) and suitable habitat is absent from the project site.

**Table C-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity**

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
Blunt-nosed leopard lizard	<i>Gambelia sila</i>	US: FE CA: CE	Occurs in open sparsely vegetated areas along sandy washes in the San Joaquin Valley and adjacent foothills, as well as Carrizo Plain and Cuyama Valley. Use small rodent burrows for cover and breeding.	Not expected. There are no known historical records of occurrence in the project vicinity <sup>1</sup> . The disturbed land uses on the project site offer no suitable habitat for this species.
San Joaquin coachwhip	<i>Masticophis flagellum ruddocki</i>	US: – CA: SSC	Occurs in open, dry, treeless areas with little or no cover, including valley grassland and saltbush scrub habitat. Takes refuge in rodent burrows, shaded vegetation and surface objects. Endemic to California, ranges from the Sacramento Valley south to the grapevine in Kern County into the inner south coast ranges.	Not expected. There is one known record of occurrence in the project vicinity (CNDDDB 2001) and suitable habitat is absent from the project site.
Coast horned lizard	<i>Phrynosoma blainvillii</i>	US: – CA: SSC	Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Fragmented distribution from Baja California west to the deserts and the Sierra Nevada, north to the Bay Area, and inland as far north as Shasta Reservoir.	Not expected. There are no known historical records of occurrence in the project vicinity <sup>1</sup> . The disturbed land uses on the project site offer no suitable habitat for this species.
Giant Garter Snake	<i>Thamnophis gigas</i>	US: FT CA: CT	Aquatic snake found in marshes, shoughs, drainage canals, and irrigation ditches from Glenn County to the southern edge of the San Francisco Bay Delta, and from Merced County to northern Fresno County. Absent from 98% of its former range in San Joaquin Valley.	Not expected. There are no known historical records of occurrence in the project vicinity <sup>1</sup> . The disturbed land uses on the project site offer no suitable habitat for this species
<b>BIRDS</b>				
Tricolored blackbird	<i>Agelalus tricolor</i>	US: – CA: CT	Occurs in open country or marshes in large colonies mainly in CA Central Valley. Breeds in freshwater marshes with tall emergent vegetation, feeds on insects.	Not expected. Suitable colonial nesting habitat and foraging habitat are absent from the project site.
Short-eared owl	<i>Asio flammeus</i>	US: – CA: SSC	Occurs in large open areas with low vegetation, and nest in dry areas on the ground surface amid grasses and low plants. The site in in the southern portion of its breeding range. The range, extends across North America.	Not expected. Suitable nesting habitat is extremely marginal on the project site. Foraging habitat is absent since no small mammal burrows were found.
Burrowing owl	<i>Athene cunicularia</i>	US: – CA: SSC	Burrows in open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	Not expected. Suitable nesting habitat is absent since no small mammal burrows were found on or immediately adjacent to the site.
Golden eagle	<i>Aquila chrysaetos</i>	US: – CA: FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not expected. Suitable nesting habitat is extremely marginal on the project site. Foraging habitat is absent since no small mammal burrows were found.

**Table C-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity**

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
Swainson’s hawk	<i>Buteo swainsoni</i>	US: – CA: CT	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, and agricultural/ranch lands. Requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations.	Not expected. Suitable nesting and foraging habitat is absent from the project site. Foraging habitat is limited to absent; Small mammal burrows were absent.
California condor	<i>Gymnogyps californianus</i>	US: FE CA: --	Nest in caves on cliff faces in mountains up to 6,000 feet in elevation in Central California, northern Baja, and great basin area.	Not expected. Suitable nesting and foraging habitat is absent from the project site. Foraging habitat is limited to absent. Small mammal burrows were absent.
<b>MAMMALS</b>				
Nelson’s antelope squirrel	<i>Ammospermophilus nelsoni</i>	US:-- CA: CT	This ground-dwelling squirrel occurs on the floor of the San Joaquin Valley to around 3,600 feet in elevation of the Temblor Mountains, centered around Lokern and Elk Hills in western Kern County and in the Carrizo and Elkhorn Plains in eastern San Luis Obispo County.	Not expected. Suitable breeding and foraging habitat are absent from the project site and adjacent lands. An historical occurrence from 1920 was from 4 miles north to northwest of the project site. .
Pallid bat	<i>Antrozous pallidus</i>	US: – CA: SSC	Found in arid and semi-arid regions across much of the American west, the pallid bat can be found in rocky outcroppings to open sparsely vegetated grassland and roost in small colonies in buildings, caves and cracks in rocks.	Not expected. Suitable colonial roosting habitat and foraging habitat are absent from the project site.
Fresno kangaroo rat	<i>Dipodomys nitratoides exilis</i>	US: –FE CA: --SE	Adapted to survival in an arid environment, Fresno kangaroo rats breed in relatively light sandy soils of in alkali sink communities. Currently there are no known populations within its historical range in Merced, Madera, and Fresno Counties. Critical habitat for this species occurs approximately 14 miles west of the site.	Not expected. Suitable breeding and foraging habitat are absent from the project site and adjacent lands.
Giant Kangaroo rat	<i>Dipodomys ingens</i>	US: –FE CA: SE	Inhabits most arid, southeastern edge of central California San Joaquin Valley and adjacent valley and plateaus of the Inner Coast Range at elevations ranging between 90-885 meters.	Not expected. There are no known historical records of occurrence in the project vicinity <sup>1</sup> . The disturbed land uses on the project site offer no suitable habitat for this species.
Western Mastiff bat	<i>Eumops perotic californicus</i>	US: – CA: SSC	This large free-tailed cliff-dwelling bat occur most frequently in broad open areas in a variety of habitats, from dry desert washes, flood plains, chaparral, oak woodland, forest, grassland meadows and agricultural areas.	Not expected. Suitable roosting habitat is absent. Foraging habitat is extremely limited due to the disturbed nature of the site.
Western red bat	<i>Lasiurus blossevillii</i>	US: – CA: SSC	Roosts in riparian trees below 6,500 ft. in elevation throughout much of western north American and South America.	Moderate probability of occurrence. Onsite trees would be marginally suitable for western red bat. Foraging habitat is extremely limited due to the highly disturbed nature of the project site.

**Table C-2: Special-Status Animal Species Potentially Occurring or Known to Occur in the Project Vicinity**

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
Hoary bat	<i>Lasiurus cinereus</i>	US: – CA: CSA	Lives in forests of the eastern U.S. and in arid deserts of the southwest, but is most abundant in forests and croplands of the Plains states and the forests of the Pacific Northwest. Hoary bats thrive in diverse forest habitat with a mixture of forest and small open areas provide edges.	Not expected. Suitable roosting habitat is absent. Foraging habitat is extremely limited due to the disturbed nature of the site. A historical occurrence from 1946 is from a 1.5 mile east of the site.
San Joaquin pocket mouse	<i>Perognathus inornatus</i>	US: – CA: CSA	Grassland, oak savanna and arid scrubland in the southern Sacramento Valley, Salinas Valley, San Joaquin Valley and adjacent foothills, south to the Mojave Desert. Associated with fine-textured, sandy, friable soils.	Not expected. There are no known historical records of occurrence in the project vicinity. <sup>1</sup> The disturbed land uses on the project site offer no suitable habitat for this species
American badger	<i>Taxidea taxus</i>	US: – CA: SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected. Suitable breeding and foraging habitats are absent from the project and adjacent lands. Small mammal burrows are absent from the project site.
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	US: FE CA: CT	Prefers open, level areas with loose-textured soils supporting scattered, shrubby vegetation with little human disturbance. Some agricultural areas may support these foxes.	Not expected. Suitable breeding and foraging habitats are absent from the project and adjacent lands. Small mammal burrows are absent from the project site.

<sup>1</sup>Project vicinity = Project area plus a 5-mile buffer

Status: Federal Endangered (FE), Federal Threatened (FT), Federal Candidate (FC), Federal Proposed (FP, FPE, FPT), Federal Delisted (FD), California Endangered (CE), California Threatened (CT), California Species of Special Concern (SSC), California Fully Protected Species (CFP), California Special Animal (CSA)

CA = California

ft = foot/feet

m = meter/meters

mi = mile/miles

US = United States

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# **APPENDIX E**

## **CULTURAL RESOURCES STUDY**

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CARLSBAD  
CLOVIS  
IRVINE  
LOS ANGELES  
PALM SPRINGS  
POINT RICHMOND  
RIVERSIDE  
ROSEVILLE  
SAN LUIS OBISPO

November 4, 2021

Adam Ross, Vice President  
Ross and Sons  
7828 South Maple Avenue  
Fresno, CA 93725

Subject: Cultural Resources Survey and Study for the Stamoules Pistachio Processing Facility Project in Fresno County, California (LSA Project No. OPA2101)

Dear Mr. Ross:

LSA conducted a cultural resources survey and study (study) for the proposed Stamoules Pistachio Processing Facility Project (project) in western Fresno County, California. The proposed project includes the construction of a pistachio hulling, processing, and packing facility that can process pistachio crops from surrounding pistachio orchards. All cultural resources study work was completed per the requirements of the California Environmental Quality Act of 1970 (CEQA).

This study has the following purposes: (1) identify archaeological deposits that may meet the CEQA definition of a historical resource (California Public Resources Code [PRC] §21084.1) or a unique archaeological resource (PRC §21083.2) and that may be impacted by the proposed project, (2) assess the potential for human remains, and (3) recommend procedures for avoiding or mitigating impacts to such deposits, if warranted. The study consisted of background research and a field survey. This report was prepared by LSA Associate/Senior Cultural Resources Manager Kerrie Collison, M.A., Registered Professional Archaeologist (RPA) No. 28731436.

## PROJECT LOCATION AND CHARACTERISTICS

The project site, which is also the study site, is within one parcel (Assessor's Parcel No. 019-150-64S) and is approximately 98 acres in size. The project site is currently open farm ground and is not developed. It is depicted on the United States Geological Survey (USGS) *Chaney Ranch, California* 7.5-minute topographic quadrangle map in Section 26 of Township 14 South, Range 13 East, Mount Diablo Baseline and Meridian (USGS 1971) (Attachment B, Figure 1). The project site is bounded by farm fields and Panoche Road to the south, Panoche Road and farm fields to the east, and farm fields to the north and to the west (Attachment B, Figure 2).

The project site is relatively flat and is at an elevation of 290 feet. The nearest natural water source (Panoche Creek) is approximately 3 miles northwest of the project site. Subsurface sediments of the project site consist of Quaternary marine and nonmarine alluvium, lake, playa, and terrace deposits that date to the Pleistocene and Holocene (ranging from 2.58 million years ago to the present) (California Geological Survey 2015).

## BACKGROUND RESEARCH

### Southern San Joaquin Valley Information Center

A records search of the project site and a 0.5-mile search radius was conducted on September 7, 2021, by staff members at the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System at California State University, Bakersfield (SSJVIC Records Search File No. 21-315). The SSJVIC, an affiliate of the California Office of Historic Preservation (OHP), is the official repository of cultural resource records and reports for Fresno County. Background research also included a review of the following State and federal inventories:

- Built Environment Resources Directory (BERD) (OHP n.d.)
- California Historical Landmarks (OHP 1996)
- California Points of Historical Interest (OHP 1992)
- California Inventory of Historic Resources (OHP 1976)

The records search results (Attachment C) indicate that no previous cultural resource studies have included the project site and one previously study (an archaeological survey) has included a portion of the area within 0.5-mile radius of the project site. No cultural resources have been previously recorded in the project site, and one cultural resource (P-10-005888, Panoche Road) has been recorded within 0.5 mile of the project site. No resources listed in the BERD are within the project site.

### Native American Heritage Commission

LSA submitted a request to the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File (SLF) for the presence of Native American cultural resources that the project may impact. The NAHC maintains the SLF database and is the official State repository of Native American sacred-site location records in California.

Andrew Green, NAHC Cultural Resources Analyst, responded to the SLF search request on September 24, 2021, stating that the results were negative and that no Native American cultural resources were known in the area (Attachment D). The NAHC also provided a suggested list of Native American individuals to contact for information regarding the project site.

### Aerial Photographs and Historic Maps

Additional background research included a review of aerial photographs and historic-period maps that include the project site (National Environmental Title Research, n.d.). The purpose of this review was to assess the potential for historic-period archaeological deposits in the project site. The oldest available aerial photograph that includes the project site dates to 1971, at which time the project site was undeveloped. A photograph dating to 1981 shows that the project site was used for agricultural purposes. The earliest available topographic quadrangle reviewed by LSA dates to 1922 and depicts no buildings on the project site itself but does depict Panoche Road to the south and unnamed roads within the project site. The unnamed roads do not appear on the 1956 map or any more recent maps. No maps depict any buildings within the project site.

## FIELD SURVEY

On September 28, 2021, LSA Archaeologist Lennon Fanning conducted a pedestrian field survey of the project site. Approximately 25 percent of the project site was not active agricultural land; the remaining 75 percent is actively used for cultivating crops. As such, he fully surveyed the fallow agricultural land and the active agricultural land was spot-checked where possible without damaging crops. The fully surveyed portion of the project site was sparsely vegetated and had greater than 90 percent ground visibility. The site is void of crops and is about 1 to 2 feet lower in elevation than the surrounding lands. Mr. Fanning spaced the survey transects approximately 10 meters (32.8 feet) apart and walked them in an east-west pattern.

He observed numerous types of sediments throughout the project site. Observed sediments included fine grain dirt with a mix of round and jagged stones, gravel with jagged gray stones, hard-packed brown silt with mixed stones, and fine silt. Modern trash was scattered throughout the project site. The survey identified no archaeological resources or human remains.

## SUMMARY AND RECOMMENDATIONS

This study, consisting of background research and a field survey, did not identify surficial archaeological deposits or human remains in the project site. The project site and 0.5-mile radius of the project site have not been previously studied for cultural resources; however, the nearest natural water source (Panoche Creek, which would have been a food and water source for precontact and historic-period occupants of the area) is approximately 3 miles northwest of the project site. The project site has a history of surficial disturbance as a result of decades of agricultural use and no archaeological resources were identified during the field survey.

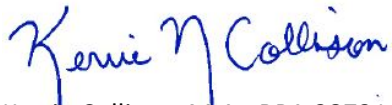
For the above reasons, it is unlikely that ground-disturbing work associated with project implementation would impact subsurface intact cultural resource deposits, and no additional cultural resource studies are recommended for this proposed project. However, there is always the potential that construction activities could uncover unanticipated subsurface cultural resources. A qualified professional archaeologist should be contacted in the event that construction personnel encounter any archaeological deposits and/or human remains during construction activities. If any such resources are discovered, contractors should stop work in the immediate area of the find and contact the archaeologist to assess the nature of the find. Upon completion of any monitoring activities, the archaeologist should prepare a report to document the methods and results of monitoring activities. This report should be submitted to the SSJVIC.

If human remains are encountered during project work, the regulatory process outlined in Health and Safety Code Section 7050.5 must be followed, which involves coordination with the NAHC and a Native American Most Likely Descendant.

Please contact me at [kerrie.collison@lsa.net](mailto:kerrie.collison@lsa.net) if you have any questions regarding this study. Thank you for using the services of LSA.

Sincerely,

**LSA Associates, Inc.**



Kerrie Collison, M.A., RPA 28731436  
Associate/Senior Cultural Resources Manager

Attachments: A—References  
B—Figures 1 and 2  
C—Records Search Results  
D—Sacred Lands File Search Results

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## ATTACHMENT A

### REFERENCES

#### California Geological Survey

- 2015 Geologic Map of California. Website: <https://maps.conservation.ca.gov/cgs/gmc/> (accessed October 22, 2021).

#### California Office of Historic Preservation (OHP)

- 1976 California Inventory of Historic Resources. California Department of Parks and Recreation, Sacramento.
- 1992 California Points of Historical Interest. California Department of Parks and Recreation, Sacramento.
- 1996 California Historical Landmarks. California Department of Parks and Recreation, Sacramento.
- n.d. Built Environment Resources Directory (BERD). Website: [https://ohp.parks.ca.gov/?page\\_id=30338](https://ohp.parks.ca.gov/?page_id=30338) (accessed October 22, 2021).

#### National Environmental Title Research

- n.d. Historic Aerials. Website: <http://www.historicaerials.com> (accessed October 22, 2021).

#### United States Geological Survey (USGS)

- 1981 *Chaney Ranch, California* 7.5-minute topographic quadrangle. Published 1955, photorevised 1971. USGS, Denver, Colorado.

## ATTACHMENT B

### FIGURES 1 AND 2

Figure 1: Project Location and Vicinity

Figure 2: Project Site



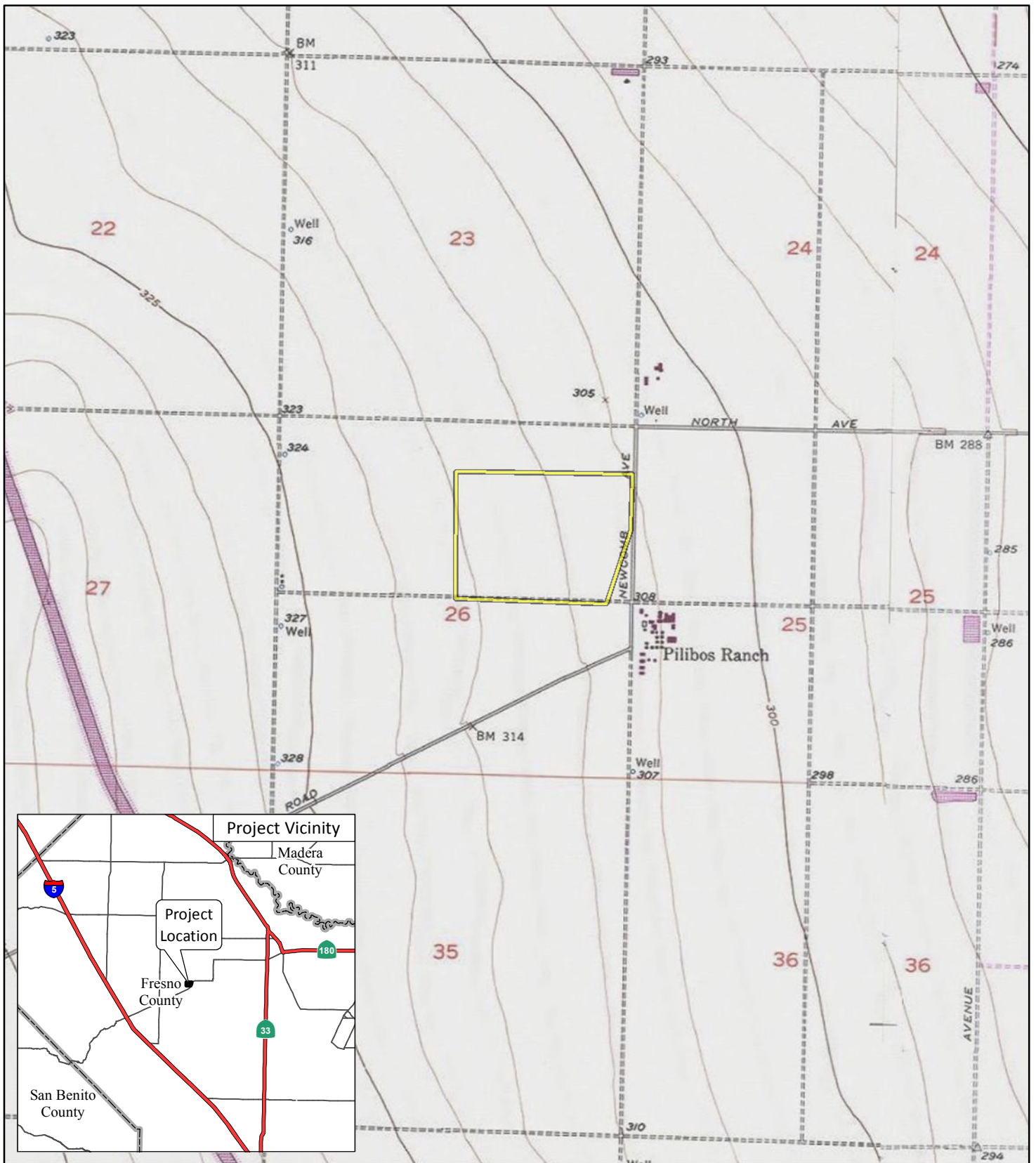
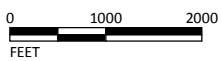


FIGURE 1

LSA

LEGEND

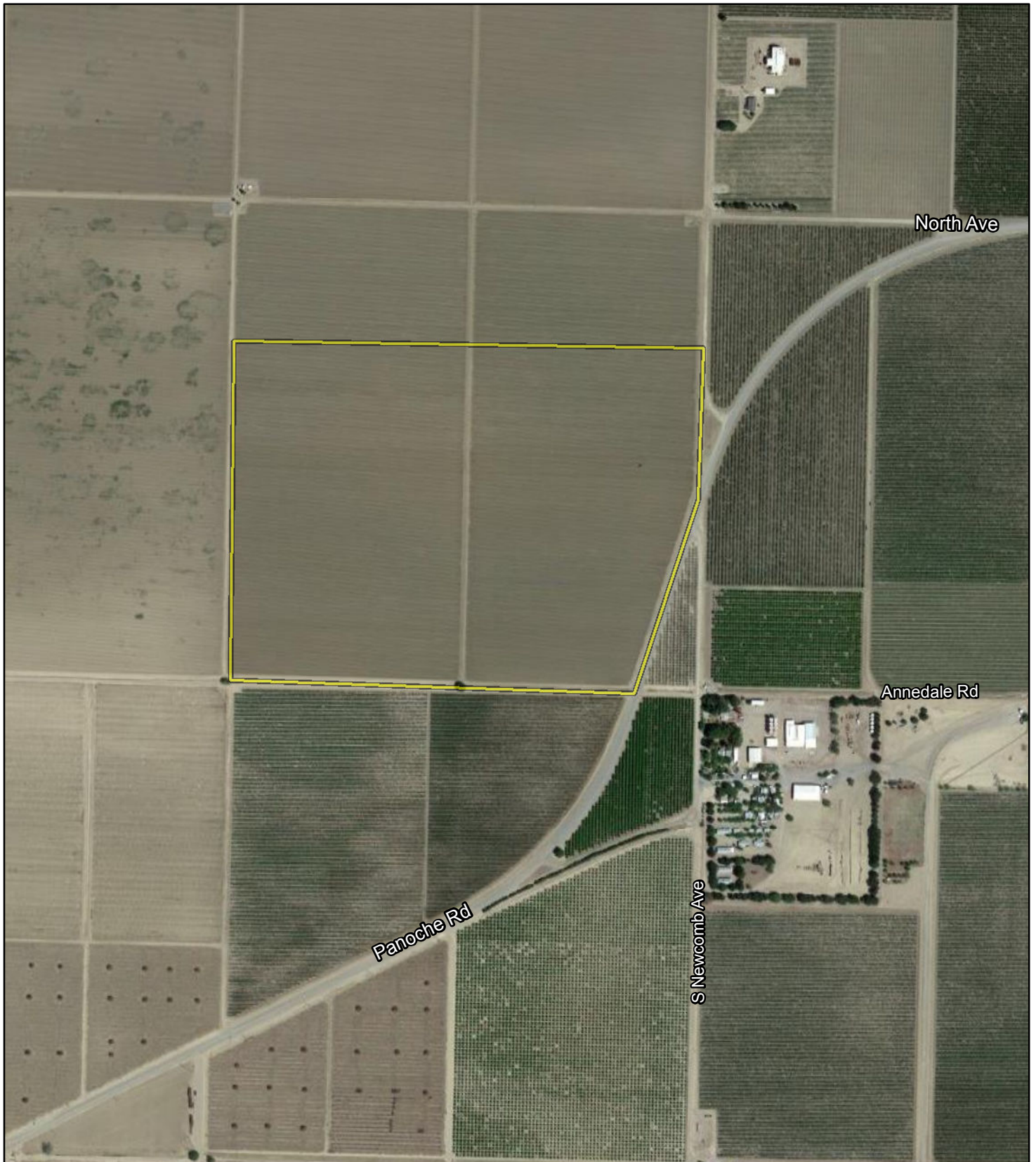
Project Location



Stamoules Pistachio Processing Facility  
Project Location and Vicinity

SOURCE: USGS 7.5' Quad - Chaney Ranch (1971) and Coit Ranch (1984), CA

I:\OPA2101\GIS\MXD\ProjectLocation\_USGS.mxd (8/20/2021)



North Ave

Annedale Rd

Panoche Rd

S Newcomb Ave

LSA

LEGEND

 Project Site

FIGURE 2



0 375 750  
FEET

SOURCE: Google (2020)

I:\OPA2101\GIS\MXD\ProjectSite.mxd (8/20/2021)

Stamoules Pistachio Processing Facility  
Project Site

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## ATTACHMENT C

### RECORDS SEARCH RESULTS



9/7/2021

Kerrie Collison  
LSA  
285 South Street, Suite P  
San Luis Obispo, CA 93401

Re: Stamoules Pistachio (OPA2101)  
Records Search File No.: 21-315

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Chaney Ranch USGS 7.5' quads. The following reflects the results of the records search for the project area and the 0.5 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format:  custom GIS maps  GIS data

Resources within project area:	None
Resources within 0.5 mile radius:	P-10-005888
Reports within project area:	None
Reports within 0.5 mile radius:	FR-02404

- Resource Database Printout (list):**  enclosed  not requested  nothing listed
- Resource Database Printout (details):**  enclosed  not requested  nothing listed
- Resource Digital Database Records:**  enclosed  not requested  nothing listed
- Report Database Printout (list):**  enclosed  not requested  nothing listed
- Report Database Printout (details):**  enclosed  not requested  nothing listed
- Report Digital Database Records:**  enclosed  not requested  nothing listed
- Resource Record Copies:**  enclosed  not requested  nothing listed
- Report Copies:**  enclosed  not requested  nothing listed
- OHP Built Environment Resources Directory:**  enclosed  not requested  nothing listed
- Archaeological Determinations of Eligibility:**  enclosed  not requested  nothing listed
- CA Inventory of Historic Resources (1976):**  enclosed  not requested  nothing listed



**Caltrans Bridge Survey:** Not available at SSJVIC; please see  
<https://dot.ca.gov/programs/environmental-analysis/cultural-studies/california-historical-bridges-tunnels>

**Ethnographic Information:** Not available at SSJVIC

**Historical Literature:** Not available at SSJVIC

**Historical Maps:** Not available at SSJVIC; please see  
<http://historicalmaps.arcgis.com/usgs/>

**Local Inventories:** Not available at SSJVIC

**GLO and/or Rancho Plat Maps:** Not available at SSJVIC; please see  
<http://www.glorerecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1> and/or  
<http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items>

**Shipwreck Inventory:** Not available at SSJVIC; please see  
<https://www.slc.ca.gov/shipwrecks/>

**Soil Survey Maps:** Not available at SSJVIC; please see  
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Celeste M. Thomson  
Coordinator

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## ATTACHMENT D

### SACRED LANDS FILE SEARCH RESULTS

## NATIVE AMERICAN HERITAGE COMMISSION

September 24, 2021

Kerrie Collison  
LSA

Via Email to: [kerrie.collison@lsa.net](mailto:kerrie.collison@lsa.net)

**Re: Stamoules Pistachio (OPA2101) Project, Fresno County**

Dear Ms. Collison:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: [Andrew.Green@nahc.ca.gov](mailto:Andrew.Green@nahc.ca.gov).

Sincerely,

Andrew Green  
Cultural Resources Analyst

Attachment



CHAIRPERSON  
**Laura Miranda**  
Luiseño

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

SECRETARY  
**Merri Lopez-Keifer**  
Luiseño

PARLIAMENTARIAN  
**Russell Attebery**  
Karuk

COMMISSIONER  
**William Mungary**  
Paiute/White Mountain  
Apache

COMMISSIONER  
**Julie Tumamait-Stenslie**  
Chumash

COMMISSIONER  
[Vacant]

COMMISSIONER  
[Vacant]

COMMISSIONER  
[Vacant]

EXECUTIVE SECRETARY  
**Christina Snider**  
Pomo

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
NAHC.ca.gov

**Native American Heritage Commission  
Native American Contact List  
Fresno County  
9/24/2021**

**Big Sandy Rancheria of Western Mono Indians**  
Elizabeth Kipp, Chairperson  
P.O. Box 337  
Auberry, CA, 93602  
Phone: (559) 374 - 0066  
Fax: (559) 374-0055  
lkipp@bsrnation.com

Western Mono

**North Valley Yokuts Tribe**  
Timothy Perez,  
P.O. Box 717  
Linden, CA, 95236  
Phone: (209) 662 - 2788  
huskanam@gmail.com

Costanoan  
Northern Valley  
Yokut

**Cold Springs Rancheria of Mono Indians**  
Carol Bill, Chairperson  
P.O. Box 209  
Tollhouse, CA, 93667  
Phone: (559) 855 - 5043  
Fax: (559) 855-4445  
coldsprgtribe@netptc.net

Mono

**Santa Rosa Rancheria Tachi Yokut Tribe**  
Leo Sisco, Chairperson  
P.O. Box 8  
Lemoore, CA, 93245  
Phone: (559) 924 - 1278  
Fax: (559) 924-3583

Southern Valley  
Yokut

**Cold Springs Rancheria of Mono Indians**  
Jared Aldern,  
P. O. Box 209  
Tollhouse, CA, 93667  
Phone: (559) 855 - 5043  
Fax: (559) 855-4445  
csrepa@netptc.net

Mono

**Table Mountain Rancheria**  
Brenda Lavell, Chairperson  
P.O. Box 410  
Friant, CA, 93626  
Phone: (559) 822 - 2587  
Fax: (559) 822-2693  
rpennell@tmr.org

Yokut

**Dumna Wo-Wah Tribal Government**  
Robert Ledger, Chairperson  
2191 West Pico Ave.  
Fresno, CA, 93705  
Phone: (559) 540 - 6346  
ledgerrobert@ymail.com

Foothill Yokut  
Mono

**Table Mountain Rancheria**  
Bob Pennell, Cultural Resource  
Director  
P.O. Box 410  
Friant, CA, 93626  
Phone: (559) 325 - 0351  
Fax: (559) 325-0394  
rpennell@tmr.org

Yokut

**Kings River Choinumni Farm Tribe**  
Stan Alec,  
3515 East Fedora Avenue  
Fresno, CA, 93726  
Phone: (559) 647 - 3227

Foothill Yokut

**Traditional Choinumni Tribe**  
David Alvarez, Chairperson  
2415 E. Houston Avenue  
Fresno, CA, 93720  
Phone: (559) 217 - 0396  
Fax: (559) 292-5057  
davealvarez@sbcglobal.net

Foothill Yokut

**North Valley Yokuts Tribe**  
Katherine Perez, Chairperson  
P.O. Box 717  
Linden, CA, 95236  
Phone: (209) 887 - 3415  
canutes@verizon.net

Costanoan  
Northern Valley  
Yokut

**Tule River Indian Tribe**  
Joey Garfield, Tribal Archaeologist  
P. O. Box 589  
Porterville, CA, 93258  
Phone: (559) 783 - 8892  
Fax: (559) 783-8932  
joey.garfield@tulerivertribe-  
nsn.gov

Yokut

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Stamoules Pistachio (OPA2101) Project, Fresno County.





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## **APPENDIX F**

### **AB 52 CONSULTATION INVITATION AND RESPONSE LETTERS**

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# County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING  
STEVEN E. WHITE, DIRECTOR

September 17, 2021

CERTIFIED MAIL

Santa Rosa Rancheria Tachi Yokut Tribe  
Attn: Ruben Barrios, Tribal Chairman  
c/o Cultural Department  
PO Box 8  
Lemoore, CA 93245

Dear Mr. Barrios:

Subject: Tribal Cultural 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 § 21080.3.1 (hereafter PRC).

The County of Fresno has determined that a project application is complete for Environmental Impact Report No. 8077, Conditional Use Permit (CUP) Application No. 3709, and Variance Application No. 4112.

The proposed use requires approval of a Conditional Use Permit (CUP) and a Variance Application No. 4112. Under California state law, the project is subject to the California Environmental Quality Act (CEQA), and the County may have to prepare an environmental document consisting of an Environmental Impact Report.

A copy of the agency routing package prepared for the subject proposal is enclosed with this letter which includes the project description and a map showing the project location. The point of contact for this project is given below.

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the County of Fresno.

You may contact me at [eahmad@co.fresno.ca.us](mailto:eahmad@co.fresno.ca.us) or (559) 600-4204 should you have any questions regarding this letter.

Sincerely,

Ejaz Ahmad, Planner  
Development Services and Capital Projects Division

EA:

G:\4360 Devs & Plan PROJ\SEC PROJ\DOCS\Environmental\EIR-EIS\8077 Stamoules Pistachio CUP 3709\AB52-Tribal Consultation\CUP 3709 Ltr SRRT.doc

Enclosures

7020 3160 0000 6655 3439

**U.S. Postal Service™**  
**CERTIFIED MAIL® RECEIPT**  
*Domestic Mail Only*

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®

**OFFICIAL USE**

Certified Mail Fee \$ \_\_\_\_\_

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hard copy) \$ \_\_\_\_\_

Return Receipt (electronic) \$ \_\_\_\_\_

Certified Mail Restricted Delivery \$ \_\_\_\_\_

Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage \$ \_\_\_\_\_

Total \$ \_\_\_\_\_

Sent **Robert Pennell**

Table Mountain Rancheria

PO Box 410

Friant CA 93626

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Postmark Here

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ruben Barrios, Tribal Chairman  
 Santa Rosa Rancheria Tachi Yokut Tribe  
 Cultural Department  
 PO Box 8  
 Lemoore CA 93245



9590 9402 3768 8032 8460 81

2. Article Number (Transfer from service label)

7020 3160 0000 6655 3439

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

*XMT*

Agent

Addressee

B. Received by (Printed Name)

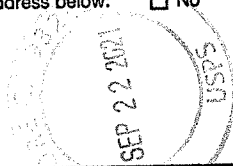
*Moriant*

C. Date of Delivery

*9.22.21*

D. Is delivery address different from item 1?  Yes

If YES, enter delivery address below:  No



3. Service Type

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PS Form 3811, July 2015 PSN 7530-02-000-9053

CMP EIR 8077 VA 4112

Domestic Return Receipt



# County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING  
STEVEN E. WHITE, DIRECTOR

September 17, 2021

CERTIFIED MAIL

Picayune Rancheria of the Chukchansi Indians  
Heather Airey - Cultural Resources Director  
PO Box 2226  
Oakhurst, CA 93644

Dear Ms. Airey:

Subject: Tribal Cultural 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 § 21080.3.1 (hereafter PRC).

The County of Fresno has determined that a project application is complete for Environmental Impact Report No. 8077, Conditional Use Permit (CUP) Application No. 3709 and Variance Application No. 4112.

The proposed use requires approval of a Conditional Use Permit (CUP) and a Variance Application No. 4112. Under California state law, the project is subject to the California Environmental Quality Act (CEQA), and the County may have to prepare an environmental document consisting of an Environmental Impact Report.

A copy of the agency routing package prepared for the subject proposal is enclosed with this letter, which includes the project description and a map showing the project location. The point of contact for this project is given below.

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the County of Fresno.

You may contact me at [eahmad@co.fresno.ca.us](mailto:eahmad@co.fresno.ca.us) or (559) 600-4204 should you have any questions regarding this letter.

Sincerely,

Ejaz Ahmad, Planner  
Development Services and Capital Projects Division

EA:  
G:\4360Devs&Pln\PROJSEC\PROJDOCS\Environmental\EIR-EIS\8077 Stamoules Pistachio CUP 3709\AB52-Tribal Consultation\CUP 3709 Ltr-PRCI.doc

Enclosures

7020 3160 0000 6655 3453

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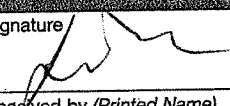
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<input type="checkbox"/> Return Receipt (hardcopy) \$	
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<input type="checkbox"/> Certified Mail Restricted Delivery \$	
<input type="checkbox"/> Adult Signature Required \$	
<input type="checkbox"/> Adult Signature Restricted Delivery \$	
Postage \$	
Total \$	
Sent to: Street City, State	Heather Airey Cultural Resources Director Picayune Rancheria of the Chukchansi Indians PO Box 2226 Oakhurst CA 93644

Postmark Here

PS Form 3800, April 2015 PSN 7530-02-000-6047 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION	*COMPLETE THIS SECTION ON DELIVERY																
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature  <input type="checkbox"/> Agent  <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <u>Jared M.</u> C. Date of Delivery <u>9/22/21</u></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes                  If YES, enter delivery address below: <input type="checkbox"/> No</p>																
<p>1. Article Addressed to:                  Heather Airey                  Cultural Resources Director                  Picayune Rancheria of the                  Chukchansi Indians                  PO Box 2226                  Oakhurst CA 93644</p>	<p>3. Service Type</p> <table border="0"> <tr> <td><input type="checkbox"/> Adult Signature</td> <td><input type="checkbox"/> Priority Mail Express®</td> </tr> <tr> <td><input type="checkbox"/> Adult Signature Restricted Delivery</td> <td><input type="checkbox"/> Registered Mail™</td> </tr> <tr> <td><input checked="" type="checkbox"/> Certified Mail®</td> <td><input type="checkbox"/> Registered Mail Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Certified Mail Restricted Delivery</td> <td><input checked="" type="checkbox"/> Return Receipt for Merchandise</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery</td> <td><input type="checkbox"/> Signature Confirmation™</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery Restricted Delivery</td> <td><input type="checkbox"/> Signature Confirmation Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Insured Mail</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</td> <td></td> </tr> </table>	<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®	<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™	<input checked="" type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery	<input type="checkbox"/> Certified Mail Restricted Delivery	<input checked="" type="checkbox"/> Return Receipt for Merchandise	<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation™	<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery	<input type="checkbox"/> Insured Mail		<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
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# County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING  
STEVEN E. WHITE, DIRECTOR

September 17, 2021

CERTIFIED MAIL

Table Mountain Rancheria  
Attn: Robert Pennell, Tribal Cultural Resources Director  
PO Box 410  
Friant, CA 93626

Dear Mr. Pennell:

Subject: Tribal Cultural 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 § 21080.3.1 (hereafter PRC).

The County of Fresno has determined that a project application is complete for Environmental Impact Report No. 8077, Conditional Use Permit (CUP) Application No. 3709 and variance Application No. 4112.

The proposed use requires approval of a Conditional Use Permit (CUP) and a Variance Application No. 4112. Under California state law, the project is subject to the California Environmental Quality Act (CEQA), and the County may have to prepare an environmental document consisting of an Environmental Impact Report.

A copy of the agency routing package prepared for the subject proposal is enclosed with this letter which includes the project description and a map showing the project location. The point of contact for this project is given below.

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the County of Fresno.

You may contact me at [eahmad@co.fresno.ca.us](mailto:eahmad@co.fresno.ca.us) or (559) 600-4204 should you have any questions regarding this letter.

Sincerely,

Ejaz Ahmad, Planner  
Development Services and Capital Projects Division

EA:

G:\4360Devs&Pln\PROJSEC\PROJDOCS\Environmental\EIR-EIS\8077 Stamoules Pistachio CUP 3709\AB52-Tribal Consultation\CUP 3709 Ltr TMR.doc

Enclosures

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Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage \$ \_\_\_\_\_

Total \$ \_\_\_\_\_

Sent \$ \_\_\_\_\_

Street \_\_\_\_\_

City, State \_\_\_\_\_

Postmark Here

Ruben Barrios, Tribal Chairman  
 Santa Rosa Rancheria Tachi Yokut Tribe  
 Cultural Department  
 PO Box 8  
 Lemoore CA 93245

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

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1. Article Addressed to:

Robert Pennell  
 Tribal Cultural Resources Director  
 Table Mountain Rancheria  
 PO Box 410  
 Friant CA 93626



2. Article Number (Transfer from service label)

7020 3160 0000 6655 3460

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  Addressee

B. Received by (Printed Name) Ruben Barrios C. Date of Delivery \_\_\_\_\_

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below: \_\_\_\_\_

3. Service Type

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Adult Signature Restricted Delivery  Registered Mail™

Certified Mail®  Registered Mail Restricted Delivery

Certified Mail Restricted Delivery  Return Receipt for Merchandise

Collect on Delivery  Signature Confirmation™

Collect on Delivery Restricted Delivery  Signature Confirmation Restricted Delivery

Insured Mail  Insured Mail Restricted Delivery (over \$500)



# County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING  
STEVEN E. WHITE, DIRECTOR

September 17, 2021

CERTIFIED MAIL

Dumna Wo Wah Government  
Attn: Robert Ledger, Tribal Chairman  
2191 W. Pico  
Fresno, CA 93705

Dear Mr. Ledger:

Subject: Tribal Cultural 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 § 21080.3.1 (hereafter PRC).

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Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the County of Fresno.

You may contact me at [eahmad@co.fresno.ca.us](mailto:eahmad@co.fresno.ca.us) or (559) 600-4204 should you have any questions regarding this letter.

Sincerely,

Ejaz Ahmad, Planner  
Development Services and Capital Projects Division

EA:

G:\4360Devs&Pln\PROJSEC\PROJDOCS\Environmental\NEIR-EIS\8077 Stamoules Pistachio CUP 3709\AB52-Tribal Consultation\CUP 3709 Ltr DWW.doc

Enclosures

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Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postmark  
Here

Postage \$ \_\_\_\_\_

Total \$ \_\_\_\_\_

Service \$ \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_

Robert Ledger  
 Tribal Chairman  
 Dumna Wo Wah Tribal Government  
 2191 W. Pico Avenue  
 Fresno CA 93705

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1 Article Addressed to:  
 Robert Ledger  
 Tribal Chairman  
 Dumna Wo Wah Tribal Government  
 2191 W. Pico Avenue  
 Fresno CA 93705



9590 9402 3768 8032 8460 98

2. Article Number (Transfer from service label)  
 7020 3160 0000 6655 3446

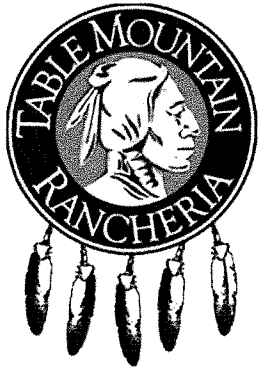
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A. Signature  
 X COLG  Agent  Addressee

B. Received by (Printed Name) SE C. Date of Delivery 9/22

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

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  - Certified Mail Restricted Delivery
  - Collect on Delivery
  - Collect on Delivery Restricted Delivery
  - Insured Mail
  - Insured Mail Restricted Delivery (over \$500)
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  - Registered Mail™
  - Registered Mail Restricted Delivery
  - Return Receipt for Merchandise
  - Signature Confirmation™
  - Signature Confirmation Restricted Delivery



# TABLE MOUNTAIN RANCHERIA

## CULTURAL RESOURCES DEPARTMENT

CERTIFIED 9916 3476

October 5, 2021

**Brenda D. Lavell**  
Tribal Chairperson

**Beverly J. Hunter**  
Tribal Vice-Chairperson

**Jenna Gosselaar**  
Tribal Secretary/Treasurer

**Richard L. Jones**  
Tribal Council Member-At-Large

**Michelle Heredia-Cordova**  
Tribal Council Member-At-Large

Ejaz Ahmad, Planner  
County of Fresno, Development Services  
And Capital Projects Division  
Fresno, Ca. 93721

RE: Environmental Impact Report No. 8077, Conditional Use Permit  
Application No. 3709 and Variance Application No. 4112

Dear: Ejaz Ahmad

Table Mountain Rancheria is responding to your letter dated, September 17, 2021, regarding, Environmental Impact Report No. 8077, Conditional Use Permit Application No. 3709 and Variance Application No. 4112. Thank you for notifying Table Mountain Rancheria of the potential development and request for consultation. The Rancheria is very interested in this project as it lies within our cultural area of interest.

If you have already conducted a record search, please provide Table Mountain Rancheria with copies of any cultural resource report you may have.

At this time, please contact our office at (559) 325-0351 or [rpennell@tmr.org](mailto:rpennell@tmr.org) to coordinate a discussion and meeting date regarding your project.

Sincerely,

Robert Pennell  
Tribal Cultural Resources Director

---

*“Preserving our past,  
Protecting our future”*

---

**Robert Pennell**  
**Cultural Resources**  
**Department**  
**Director**

**Office (559) 325-0351**  
**Fax (559) 325-0394**

---

23736 Sky Harbour Road

P.O. Box 410

Friant, California 93626

Office (559) 316-6330

Fax (559) 822-6340

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