FINAL
Environmental Impact Report
Shirk and Riggin Industrial Project
City of Visalia, Tulare County, California

State Clearinghouse Number 2022080658

Prepared for:
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Report Date: January 17, 2025

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SECTION 1: INTRODUCTION

The City of Visalia (City) is the Lead Agency for the Environmental Impact Report (EIR) (State Clearinghouse No. 2022080658) for the Shirk and Riggin Industrial Project (proposed project). In accordance with California Environmental Quality Act (CEQA) Guidelines Sections 15084 and 15087, the City prepared the Shirk and Riggin Industrial Project Draft Environmental Impact Report and appendices attached thereto (collectively, Draft EIR) and circulated the Draft EIR for public review in full compliance with CEQA Guidelines. The Draft EIR identifies significant effects on the environment which may occur as a result of implementation of the proposed project. After circulating the Draft EIR for the required 45-day public review and comment period, and pursuant to CEQA Guidelines Section 15088, the City has evaluated the comments received on the Draft EIR and prepared this Final Environmental Impact Report (Final EIR).

Pursuant to CEQA Guidelines Section 15132, this Final EIR includes: a list of persons, organizations, and agencies that provided comments on the Draft EIR during the public review and comment period that ran from April 11, 2024, to May 28, 2024; the Responses to Comments containing the responses to the comments received regarding the Draft EIR; an Errata containing revisions to the Draft EIR; and a Mitigation Monitoring and Reporting Program (MMRP) for the purpose of ensuring the enforceability of the identified mitigation measures to be utilized by the City of Visalia in connection therewith. This document is organized into three sections:

- **Section 1—Introduction.** Provides an introduction to the Final EIR.
- **Section 2—Responses to Written Comments.** Provides a list of the agencies, organizations, and individuals who commented on the Draft EIR. Copies of all of the letters received regarding the Draft EIR, annotated with numbered comments, and responses thereto are included in this section.
- **Section 3—Errata.** Includes an addendum listing refinements and clarifications on the Draft EIR which have been incorporated.

The Final EIR consists of, collectively, the following contents:

- Draft EIR (provided under separate cover)
- Draft EIR Appendices (provided under separate cover)
- Introduction and Responses to Written Comments on the Draft EIR (Sections 1 and 2 of this document)
- Errata (Section 3 of this document)
- Mitigation Monitoring and Reporting Program (provided under separate cover)

The EIR consists, collectively, of the Draft EIR and the Final EIR.

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SECTION 2: RESPONSES TO WRITTEN COMMENTS

2.1 - List of Commenters

A list of public agencies, organizations, and individuals that provided comments during the public review period, which ran from April 11, 2024, to May 28, 2024, on the Shirk and Riggin Industrial Project Draft EIR (Draft EIR) is presented below. Each comment has been assigned a code. Individual comments within each communication have been numbered so comments can be cross-referenced with responses. Following this list, the text of the communication is reprinted and followed by the corresponding response.

After the close of the public comment period, two additional comment letters were received. A letter from the California Department of Fish and Wildlife (CDFW) was received by the City of Visalia (City) on June 4, 2024, and a letter from the San Joaquin Valley Air Pollution Control District (SJVAPCD) was received on June 6, 2024. Although not required to do so under California Environmental Quality Act (CEQA) Guidelines, the City chose to respond to these late comment letters as though they had been submitted during the regular public comment period. Accordingly, although the City is not required to provide a written response to late comment letter(s), the City has elected to respond, but without waiving its position that written responses to late comment letters are not required by law.

Commenter **Commenter Code**

State Agencies

California Department of Conservation .... CDOC

Organizations

Advocates for the Environment .... AFTE
Golden State Environmental Justice Alliance .... GSEJA
Laborers International Union of North America, Local 294 .... LIUNA
Carpenters Union Local 1109 .... LOCAL1109

Comments Received after the May 29, 2024 Close of Public Comment Period

California Department of Fish and Wildlife .... CDFW
San Joaquin Valley Air Pollution Control District .... SJVAPCD

2.2 - Response to Comments

2.2.1 - Introduction

In accordance with CEQA Guidelines Section 15088, the City of Visalia, as the Lead Agency, evaluated the comments received on the Draft EIR (State Clearinghouse [SCH] No. 2022080658) for the Shirk and Riggin Industrial Project (proposed project) and has prepared the following responses to the comments received. This Response to Comments document becomes part of the Final EIR for the proposed project in accordance with CEQA Guidelines Section 15132.

2.2.2 - Comment Letters and Responses

The comment letters reproduced in the following pages follow the same organization as used in the List of Commenters.

CEQA requires recirculation of a Draft EIR when the Lead Agency adds "significant new information" to an EIR after public notice is given of the availability of a Draft EIR for public review, but before EIR certification (CEQA Guidelines § 15088.5). Recirculation is not required unless the EIR is changed in a way that would deprive the public of the opportunity to comment on significant new information, including a new significant impact for which no feasible mitigation is available to fully mitigate the impact (thus resulting in a significant and unavoidable impact), a substantial increase in the severity of a disclosed environmental impact, or development of a new feasible alternative or mitigation measures that would clearly lessen environmental impacts but which the project proponent declines to adopt (CEQA Guidelines § 15088.5(a)). Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR (CEQA Guidelines § 15088.5(b)).

These responses to comments include discussion providing clarification, amplification and/or minor modifications to specific environmental analyses. Neither the clarifications, amplifications, nor modifications constitute "significant new information" requiring recirculation of the Draft EIR pursuant to CEQA Guidelines Section 15088.5.

California
Department of Conservation
Division of Land Resource Protection

Gavin Newsom, Governor
David Shabazian, Director

MAY 16, 2024

VIA EMAIL: BRANDON.SMITH@VISALIA.CITY
CITY OF VISALIA
ATTN: BRANDON SMITH, PRINCIPAL PLANNER
315 E. ACEQUIA AVENUE
VISALIA, CA 93291

Dear Mr. Smith:

ENVIRONMENTAL IMPACT REPORT FOR THE SHIRK AND RIGGIN INDUSTRIAL PROJECT, SCH# 2022080658

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Environmental Impact Report for the Shirk and Riggin Industrial Project (Project).

The Division monitors and maps farmland conversion on a statewide basis, provides technical assistance regarding the Williamson Act, and administers various agricultural land conservation programs. Public Resources Code, section 614, subdivision (b) authorizes the Department to provide soil conservation advisory services to local governments, including review of CEQA documents.

Protection of the state's agricultural land resources is part of the Department's mission and central to many of its programs. The CEQA process gives the Department an opportunity to acknowledge the value of the resource, identify areas of Department interest, and offer information on how to assess potential impacts or mitigation opportunities. 1

The Department respects local decision-making by informing the CEQA process, and is not taking a position or providing legal or policy interpretation.

We offer the following comments for consideration with respect to the project's potential impacts on agricultural land and resources within the Department's purview.

PROJECT ATTRIBUTES

The project applicant proposes to convert existing agricultural lands and develop the approximately 284-acre project site into an industrial park, consisting of eight industrial buildings used for warehouse, distribution, and light manufacturing; six flex industrial buildings; two drive-through restaurants; a convenience store; a recreational vehicle and self-storage facility; gas station; and a car wash.

The project site would include sufficient amounts of trailer stalls and car parking stalls to serve the proposed uses in accordance with applicable City requirements. The proposed project would also involve necessary infrastructure and improvements sufficient to serve the proposed uses. These would include detention basins on the east, 1 CONT west, and central portions of the project site and other necessary stormwater facilities to be sized and installed in accordance with all applicable requirements and standards. The project site contains Prime Farmland as designated by DOC's Farmland Mapping and Monitoring Program.

PROJECT CONSIDERATIONS

The conversion of agricultural land represents a permanent reduction and impact to California's agricultural land resources. The Department generally advises discussion of the following in any environmental review for the loss or conversion of agricultural land:

- Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project.
- Impacts on any current and future agricultural operations in the vicinity; e.g., 2 land-use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc.
- Incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects.
- Proposed mitigation measures for impacted agricultural lands within the proposed project area.

MITIGATING AGRICULTURAL LAND LOSS OR CONVERSION

Consistent with CEQA Guidelines, the Department advises that the environmental review address mitigation for the loss or conversion of agricultural land. An agricultural conservation easement is one potential method for mitigating loss or conversion of agricultural land. (*See* Cal. Code Regs., tit. 14, § 15370 [mitigation includes "compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements."]; *see also King and Gardiner Farms, LLC v. County of Kern* 3 (2020) 45 Cal.App.5th 814.)

Mitigation through agricultural conservation easements can take at least two forms: the outright purchase of easements or the donation of mitigation fees to a local, regional, or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural easements. The conversion of agricultural land may be viewed as an impact of at least regional significance. Hence, the search for replacement lands may not need to be limited strictly to lands within the project's surrounding area. A helpful source for regional and statewide agricultural mitigation banks is the California Council of Land Trusts. They provide helpful insight into farmland mitigation policies and implementation strategies, including a guidebook with model policies and a model local ordinance. The guidebook can be found at:

California Council of Land Trusts

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Of course, the use of conservation easements is only one form of mitigation, and the Department urges consideration of any other feasible measures necessary to mitigate project impacts.

Thank you for giving us the opportunity to comment on the Environmental Impact Report for the Shirk and Riggin Industrial Project. Please provide the Department with notices of any future hearing dates as well as any staff reports pertaining to this project. 4
If you have any questions regarding our comments, please contact Farl Grundy, Associate Environmental Planner via email at Farl.Grundy@conservation.ca.gov.

Sincerely,

Monique Wilber

Monique Wilber

Conservation Program Support Supervisor

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State Agencies

California Department of Conservation (CDOC)

Comment CDOC-1

The CDOC notes their role as a Trustee Agency for agricultural resources and a Responsible Agency under CEQA. The commenter also summarizes the project's proposed entitlements and project description. It does not raise any specific project-related environmental issues under CEQA and therefore no response is required.

Response to CDOC-1

The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment CDOC-2

The comment states that the conversion of agricultural land represents a permanent reduction and impact to California's agricultural land resources and sets forth CDOC's general recommendations for four discussion items in environmental review when there is loss or conversion of agricultural land.

Response to CDOC-2

The Draft EIR addresses all discussion items recommended for consideration by CDOC. As discussed further below and in the Draft EIR, there is a description of existing agricultural resources on the project site and its surrounding area and potential environmental effects resulting from the proposed project. Descriptions and analyses in Section 3.2, Agricultural Resources and Forestry Resources, were based, in part, on information contained in the City of Visalia General Plan (General Plan), the Land Evaluation and Site Assessment for the project site (Draft EIR Appendix G), and CDOC Farmland Mapping and Monitoring Program (FMMP) maps.

Specifically, the Draft EIR addresses the four discussion items listed in the comment as described below.

- *Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project*.
  - The Draft EIR, Section 3.2, Agricultural Resources and Forestry Resources, Impact AG-1, discloses the amount of Prime Farmland that would be converted with the development of the proposed project (both directly and indirectly) and specifically discussed the type, amount and location of farmland conversion from the proposed project. For example, the Draft EIR explains that the project site is in current agricultural use, and that almost the entire 284-acre project site (except for approximately 0.31 acre that is designated "Other Land" under the FMMP) is considered Prime Farmland. The Draft EIR also described at length the amount of agricultural land within the City and its Planning Area that would be converted to nonagricultural uses at full buildout of the General Plan vision. Furthermore, it noted areas within the County that are north, east and south of the project site that are designated for agricultural uses that could conceivably be converted in the future for urban uses.

    In addition, the Draft EIR explained the City's approach to growth, which focuses on ensuring that growth occurs in a compact and concentric fashion through the implementation of the General Plan's phased growth strategy. The General Plan Land Use

Diagram establishes three growth rings to accommodate estimated City population for the years 2020 and 2030. The Urban Development Boundary (UDB) Tier I shares its boundaries with the 2012 city limits. Within Tier I, annexation and development of residential, commercial, and industrial land is allowed to occur at any time, consistent with the City's Land Use Diagram. The project site is located within Tier 1 of the UDB and is designated as Light Industrial and Industrial under the General Plan.

The comment has been noted for the record and revisions to the Draft EIR are not necessary.

- *Impacts on any current and future agricultural operations in the vicinity; e.g., land use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities,* etc.
  - Section 3.2, Agricultural Resources and Forestry Resources, addresses whether the proposed project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural uses, and confirms there would be less than significant impacts in this regard. The conversion of the project site from agricultural land to urban uses would be localized to the project site and would not significantly and adversely affect other agricultural operations in the area by, for example, causing land use conflicts, eliminating agricultural support infrastructure, etc. In part, this is due to the City's phased approach to growth, which is focused on directing growth to appropriate locations, thereby balancing various land uses with well-planned supporting infrastructure within compact, concentric rings.

    Moreover, as discussed in detail in the Draft EIR, the County Board of Supervisors confirmed the above conclusions in its findings when it voted to allow for the cancellation of the project site's Williamson Act Contract.[1] Specifically, the Board found, among other things, that cancellation:
    - is not likely to result in the removal of adjacent lands from agricultural use;
    - is for an alternate use that is consistent with the adopted General Plan; and
    - will not result in discontinuous patterns of urban development.

The comment has been noted for the record and revisions to the Draft EIR are not necessary.

- *Incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects*.
  - The Draft EIR, Section 3.2 Agricultural Resources and Forestry Resources, includes a discussion of cumulative impacts as required under CEQA. As a preliminary matter, the Draft EIR discusses the analysis contained in the General Plan EIR, which recognized that implementation of the General Plan vision, including the development of lands designated for Industrial and Light Industrial uses such as the project site, would result in significant and

[1] The project site is encumbered by a Williamson Act Contract. The landowner moved forward with cancellation proceedings under State law. To that end, the landowner obtained approval, subject to compliance with certain conditions, from the Board of Supervisors of Tulare County to remove the project site from the subject County Agricultural Preserve No. 0293 and to tentatively cancel the contract (WAC No. 2880) pursuant to Government Code Sections 51281 and 51282 on November 29, 2022 (see Tulare County Board of Supervisors Resolution No. 2022-1005, attached as Appendix G2 to the Draft EIR).

unavoidable impacts related to the conversion of agricultural resources to urban uses for which there was no feasible mitigation. Accordingly, this impact has already been fully disclosed as set forth in the certified General Plan EIR. Nevertheless, for purposes of a conservative analysis, the Draft EIR addressed the proposed project's individual and cumulative impacts with respect to the agricultural resources. In terms of cumulative impacts, this discussion acknowledged that the conversion of agricultural land associated with the project, combined with other past, present and reasonably foreseeable future projects within the identified geographic scope (i.e., City's Planning Area), would constitute a significant cumulative impact. The Draft EIR then concluded that the proposed project would result in a cumulatively considerable contribution to this significant cumulative impact related to conversion of Prime Farmland to urban uses. Finally, the Draft EIR, consistent with the General Plan EIR, determined there was no feasible mitigation to reduce this cumulative impact to less than significant (as discussed further below).

The comment has been noted for the record and revisions to the Draft EIR are not necessary.

- *Proposed mitigation measures for impacted agricultural lands within the proposed project area*.
  - The Draft EIR considers and evaluates potential mitigation strategies to feasibly avoid or reduce the identified significant impact. Ultimately, for the reasons set forth below and in the Draft EIR, it concludes that no feasible mitigation measure(s) are available and thus determines that the proposed project would result in significant unavoidable impacts related to the loss of agricultural land and conversion of Prime Farmland to urban uses. The foregoing is consistent with the impact conclusions set forth in the General Plan EIR as a result of the long- envisioned buildout under the General Plan.

    The comment has been noted for the record the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required.

Comment CDOC-3
The commenter states that the Draft EIR should address mitigation for the loss or conversion of agricultural land and explains that an agricultural conservation easement is one potential mitigation option, which can take at least two forms: either as purchase of easement or donation of mitigation fees to an appropriate entity. The commenter further states that conversion of agricultural land may be viewed as an impact of at least regional significance, and thus the search for replacement lands may not need to be limited strictly to lands within the project's surrounding area and then references resources for regional or Statewide mitigation banking strategies. The comment also notes that the use of conservation easements is only one form of mitigation and urges consideration of any other feasible measures necessary to mitigate project impacts.

Response to CDOC-3
As disclosed in the Draft EIR and in Response to CDOC-2 above, the proposed project would result in the conversion of Prime Farmland to urban uses, which would constitute a significant impact. As the Draft EIR explains, the project site is located within Tier 1 of the UDB, which is contiguous with the

City's municipal boundaries and is designated as Light Industrial and Industrial under the General Plan. Within Tier I, "annexation and development of residential, commercial, and industrial land is allowed to occur at any time, consistent with the City's Land Use Diagram" (General Plan Policy LU-P-20). Development of the proposed project would help to implement the long-planned vision for the City; the General Plan recognizes the need to convert Important Farmland (such as the project site) to urban uses to accomplish a balance of land uses, which would be achieved by providing for ". . . an orderly and efficient transition from rural to urban land uses" consistent with General Plan Policy LU-0-12.

Given the competing interests of (1) the City's goal to implement full buildout of its General Plan land use vision with a balance of uses, while (2) taking into appropriate consideration the importance of agricultural resources, General Plan Policy LU-P-34 requires the City to create and adopt a mitigation program via adoption of an Agricultural Preservation Ordinance to address the conversion of Prime Farmland and Farmland of Statewide Importance in Tiers II and III of the UDB. While this policy identifies specific requirements for properties located in Tiers II and III, it specifically exempts lands located in Tier I from these mitigation requirements. This makes sense because of the City's concentric growth pattern strategy, which prioritizes conversion of agricultural lands that are closest to the City's municipal boundaries. Development in this fashion will help to maintain the maximum amount of contiguous Important Farmland, avoiding "patchwork" easements and dispersed development in a manner that cannot be guaranteed through the requirement of purchasing agricultural easements.

The City adopted the above-referenced Agricultural Preservation Ordinance (Title 18 of Municipal Code) in May 2023. Pursuant to General Plan Policy LU-P-34, it would contain a specific exemption for lands within Tier 1, such as the project site. Accordingly, as disclosed in the Draft EIR, there is no available legally feasible mechanism for the City to impose mitigation requiring the acquisition of an off-site conservation easement, payment of in lieu funding for same, or some other unspecified mitigation. Therefore, the Draft EIR properly determined this impact would be significant and unavoidable.

Several factors must be considered in determining the feasibility of potential mitigation for the conversion of agricultural lands. First, an off-site conservation easement (or funding for same) does not create new farmland to replace the agricultural lands being converted and thus does not offset the loss of farmland resulting from the subject project (e.g., *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 875). While a 2018 amendment to CEQA Guidelines Section 15370(e) added language indicating permanent protection of resources "in the form of conservation easements" can provide compensatory mitigation, the amendment does not explain how and to what extent such a measure might be viewed as offsetting or reducing the loss of farmland that results when it is converted to another use. Thus, the legal propriety of a lead agency finding that requiring an off-site conservation easement (or funding in lieu thereof) as mitigation is sufficient to "avoid," "minimize," or "substantially lessen" the impact to farmland that results when it is developed remains potentially unclear, particularly to the extent such reliance is intended to reduce the impact to less than significant (PRC §§ 21002, 21100(b)(3), and 21081(a)(1); CEQA Guidelines §§ 15091(a)(1) and 15092(b)(2)).

As stated in the Draft EIR Section 3.2 Agricultural Resources and Forestry Resources page 3.2-10, the City adopted its Agricultural Preservation Ordinance (APO) on May 15, 2023, in order to implement an Agricultural Mitigation Program (as outlined in General Plan Policy LU-P-34). As stated in the Draft EIR pages 3.2-10–3.2-12, Policy LU-P-34 [and the subsequently adopted APO] explicitly exempts conversions of agricultural lands located in UDB Tier I, such as the project site, from the mitigation program. Therefore, the mitigation program required in LU-P-34, and included in the APO, is not applicable to the proposed project. Although implementation of policies in the General Plan would reduce some agricultural impacts for General Plan buildout, over 14,000 acres of the existing Important Farmland would be lost. Therefore, the General Plan EIR determined that conversion of farmland from General Plan buildout would be significant and unavoidable.

Although previously addressed in the certified General Plan EIR, for purposes of a comprehensive and conservative analysis, the Draft EIR acknowledged that the proposed project would result in the loss of Prime Farmland as a result of the construction of the proposed urban uses. Furthermore, despite the fact this conversion was already evaluated and disclosed as part of the General Plan EIR, this Draft EIR conservatively concludes that the proposed project would result in significant and unavoidable impacts related to the conversion of Farmland. Because Policy LU-P-34 [and the adopted APO] does not apply to Tier 1 lands and further because there is no adopted APO, there is no feasible method to mitigate the loss of this Important Farmland. However, as noted in the Draft EIR, the project site has long been identified for conversion to urban uses.

Public agencies may use their discretionary powers granted by laws other than CEQA to mitigate environmental impacts. CEQA does not, however, expand the powers granted by other laws or otherwise confer an independent grant of authority to impose mitigation measures on a project. When imposing mitigation for a project's significant environmental effects, a public agency may only exercise those powers provided by legal authority independent of CEQA (PRC § 21004). The CEQA Guidelines specify that CEQA does not grant new or independent powers to public agencies (CEQA Guidelines § 15040). Accordingly, an agency's exercise of discretionary powers must be within the scope of the power granted by laws and be consistent with express or implied limitations (CEQA Guidelines § 15040(d),(e)). Mitigation measures that are beyond the powers conferred by law on lead agencies are legally infeasible. Accordingly, here, because the City has not yet adhered to the specific procedural requirements necessary under the law to authorize imposition of such mitigation (i.e., lawfully adopting an APO that applied to the project site), it has no separate and independent authority to require conservation easements or mitigation fees in lieu thereof (e.g., *Pinewood Investors v. City of Oxnard* (1982) 133 Cal.App.3d 1030, 1040; court help that a requirement to pay an increased sewer fee was not authorized by CEQA, noting that a city's general police power did not override specific procedural limitations on sewer fees.)

In summary, although previously addressed in the certified General Plan EIR, for purposes of a comprehensive and conservative analysis, this Draft EIR evaluated the proposed project's impact on agricultural resources and disclosed that it would result in the loss of Prime Farmland as a result of the construction of the proposed urban uses. Furthermore, despite the fact this conversion was already evaluated and disclosed as part of the General Plan EIR, this Draft EIR conservatively concluded that the proposed project would result in significant and unavoidable impacts related to the conversion of Farmland. Because, however, Policy LU-P-34 does not apply to Tier 1 lands; and further, because there is no adopted APO, there is no legally feasible method to mitigate the loss of this Prime Farmland. However, as noted above, the project site has long been identified for conversion to urban uses. This reflects the City's overall land use strategy that ensures the areas identified for growth are contiguous to existing development and to each other, and policies clearly require sequencing of growth so that minimal fragmentation of agricultural land will occur. The General Plan's three-tier growth management system reinforces the City's compact form, minimizing the interface between farming and urban uses. The General Plan establishes greenbelt buffers along the urban edge in some places, while providing requirements for buffering and screening of private development elsewhere. Furthermore, the City's urbanized land use vision for the project site vicinity is evident in that the adjacent surrounding uses consist of industrial uses such as nearby existing distribution center/hub. However, as discussed above, impacts would be significant and unavoidable and no feasible mitigation is available.

The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment CDOC-4
The concluding paragraph includes a request to be notified of future hearings and staff reports for this project.

Response to CDOC-4
The comment has been noted for the record and revisions to the Draft EIR are not necessary.

May 10, 2024

Advocates for the Environment

A non-profit public-interest law firm
and environmental advocacy organization

Brandon Smith
Principal Planner
City of Visalia
315 E. Acequia Avenue,
Visalia, CA 93291

Via U.S. Mail and email to brandon.smith@visalia.city

Re: Comments on the Draft Environmental Impact Report for Shirk & Riggin Industrial Park Project, SCH No. 2022080658

Dear Mr. Smith:

Advocates for the Environment submits the comments in this letter regarding the proposed Shirk & Riggin Industrial Park Project (**Project**), located near the intersection of North Shirk Street and West Riggin Avenue in the City of Visalia (**City**). This Project proposes to convert agricultural land to an industrial park with eight warehouse buildings, six flex industrial buildings, two drive-through restaurants, a convenience store, a recreational vehicle, self-storage facility, and a car wash, for a total of 3,820,000 square feet. 1

We are a non-profit public-interest law firm that uses environmental law to fight to improve the environment in California. We have reviewed the Environmental Impact Report (**EIR**) released in April 2024 and submit comments regarding the sufficiency of the EIR's Greenhouse-Gas (**GHG**) analysis under the California Environmental Quality Act (**CEQA**).

The City Should Require the Project to be Net-Zero

Given the current regulatory context and technological advancements, a net-zero significance threshold is feasible and extensively supportable. GHG emissions from buildings, including indirect emissions from offsite generation of electricity, direct emissions produced onsite, and from construction with cement and steel, amounted to 21% of global GHG
emissions in 2019. (IPCC Sixth Assessment Report, Climate Change 2022, WGIII, Mitigation 2
of Climate Change, p. 9-4.) This is a considerable portion of global GHG emissions.

It is much more affordable to construct new building projects to be net-zero than to obtain the same level of GHG reductions by expensively retrofitting older buildings to comply with climate change regulations. Climate damages will keep increasing until we reach net zero GHG emissions, and there is a California state policy requiring the state to be net-zero by 2045. It therefore is economically unsound to construct new buildings that are not net-zero.

10211 Sunland Blvd., Shadow Hills, CA 91040 (818) 650-0030 X101 dw@aenv.org

Environmental groups have achieved tremendous outcomes by litigation under CEQA. Two of the largest mixed-use development projects in the history of California, Newhall Ranch (now FivePoint Valencia), and Centennial (part of Tejon Ranch) decided to move forward as net-zero communities after losing CEQA lawsuits to environmental groups. The ability for these large projects to become net-zero indicates that it is achievable, even for large-scale developments. The Applicant for this Project should do the same. 2 CONT

We urge the City to adopt net-zero as the GHG significance threshold for this project. This threshold is well-supported by plans for the reduction of GHG emissions in California, and particularly the CARB Climate Change Scoping Plans. The CARB 2017 Scoping Plan states that "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development." (CARB 2017 Scoping Plan, p. 101.) Additionally, the CARB 2022 Scoping Plan reaffirms the necessity of a net zero target by expressing: "it is clear that California must transition away from fossil fuels to zero-emission technologies with all possible speed … in order to meet our GHG and air quality targets." (CARB 2022 Scoping Plan, p. 184.) CARB further encourages a net-zero threshold in its strategies for local actions in Appendix D to the 2022 Scoping Plan. (CARB 2022 Scoping Plan, Appendix D p. 24-26.) 3

Moving this Project forward as a net-zero project would not only be the right thing for the City to do, but also would also help protect the City and the Applicant from CEQA GHG litigation.

CEQA GHG Significance Analysis

The EIR derived its GHG significance thresholds from the CEQA Appendix G Guidelines and concluded that the Project would have a potentially significant impact because the Project could conflict with applicable plans, policies, and regulations for the reduction of GHG emissions. (EIR, p. 3.8-50.) The EIR used CalEEMod to quantify the Project's operational emissions at 63,290 metric tons carbon dioxide equivalent (**MTCO2e**) per year. (EIR, p. 3.8-35.) The EIR erroneously claimed that the Project's GHG impact would be reduced to a less than significant level after mitigation. The Project would have a remaining significant impact even after the proposed mitigation, and therefore the City should have adopted more measures to mitigate the full extent of the Project's cumulative GHG impact as required by CEQA. 4

Consistency with Identified Applicable Plans

To support the City's conclusion that the Project would not conflict with an applicable plan, policy, or regulation for GHG emissions reductions, the EIR included a discussion of the 2022 Scoping Plan, 2017 Scoping Plan, Visalia Climate Action Plan (**CAP**), and the Visalia 5

General Plan. This significance analysis violates CEQA by overlooking the Project's conflict with the 2022 Scoping Plan and the 2017 Scoping Plan, as well as failing to acknowledge and analyze all applicable plans for the reduction of GHGs. 5 CONT

The 2022 Scoping Plan sets a goal for 50% of all industrial energy demand to be electrified by 2045 (2022 CARB Scoping Plan, p. 77).[1] The EIR includes a table to demonstrate consistency but does not make an adequate showing that the Project is consistent with this goal. The 2022 CARB Scoping Plan incorporates more aspects than the chosen areas of analysis, placing particular emphasis on decarbonizing industrial facilities by "displacing fossil fuel use with a mix of electrification, solar thermal heat, biomethane, low- or zero-carbon hydrogen, and other low-carbon fuels to provide energy for heat and reduce combustion emissions" (2022 CARB Scoping Plan, p. 208). The Project does not appear to be consistent with this goal, according to the analysis provided in the EIR which demonstrates that the Project would use renewable natural gas blend for its heating, the Project would not fully displace its fossil fuel use with low-carbon alternatives. Thus, the Project creates a conflict with the 2022 Scoping Plan by its considerable reliance on diesel fuel and other non-renewable energy sources in its operations. 6

The 2017 Scoping Plan was developed to facilitate California's compliance with SB 32, which requires statewide GHG emissions to be reduced to 40% below 1990 levels by 2030. (Health & Safety Code § 38566.) In the chart analyzing consistency with the 2017 Scoping Plan, the EIR did not discuss how the Project is consistent with any of the goals, including the 2050 goal of 80% below 1990 levels. (DEIR, p. 3.8-44 – 3.8-46.) The 2017 Scoping Plan also sets out statewide goals for total GHG emissions targets of 6 MTCO2e/capita by 2030, and 2 MTCO2e/capita by 2050 (CARB Scoping Plan, p. 99). The Project's per-service population GHG emissions would be over 15 MTCO2e/capita, greatly exceeding the 2050 target. This target would need to be achieved within the Project's 30-year lifespan, making the Project inconsistent with the goals set out by the CARB 2017 Scoping Plan.[2] 7

Without mitigation, the Project would have a significant GHG impact, as the City acknowledges by concluding a "potentially significant" impact before implementation of mitigation. (DEIR, p. 3.8-50.) 8

The EIR Should Have Analyzed All Applicable Plans

The City chose, as its second GHG threshold, whether the Project would "conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases." (EIR, p.3.8-36.) This language requires that the EIR analyze the Project's consistency with all other applicable plans, not just the plans that the City prefers 9

[1] 2022 Scoping Plan located at: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf
[2] $63{,}290\ MTCO2e\ per\ year\ \div 4{,}177\ employees = 15.15\ MTCO2e\ per\ capita$

to analyze. In particular, the EIR must also demonstrate consistency with Executive Order B-55-18 (**EO B- 55-18**).

EO B-55-18 requires the State of California to achieve carbon neutrality—net zero GHG emissions—by 2045. The Project is inconsistent with EO B-55-18 because it does not prohibit the use of gasoline, diesel, and natural gas. In fact, the Project would use heavy-duty vehicle fleets powered by non-renewable energy such as diesel fuel. Burning such non-renewable fuels results in substantial GHG emissions, preventing the Project from ever achieving carbon neutrality, unless it enters into agreements with the applicant or future tenant to ensure that fossil fuel use is on track to be eliminated by 2045. Thus, the Project would conflict with EO B-55-18. As stated by the City's chosen threshold, conflict with *any* applicable policy would be a significant GHG impact. 9 CONT

Consequently, because the Project is inconsistent with applicable plans for the reduction of GHGs, it is significant under the City's chosen threshold.

The GHG Mitigation Measures are Insufficient to Mitigate the Project's Potentially Significant Impact

Once a lead agency determines that the Project could have a significant impact, CEQA requires that impact to be mitigated to the appropriate extent. The proposed mitigation measures would not mitigate the Project's GHG impact to the level CEQA requires. The City claimed that the Project's GHG impact would be less than significant with implementation of Mitigation Measure (**MM**) AIR-2d, MM GHG-2a, and MM GHG-2b. However, these mitigation measures would not be sufficient to reduce the Project's impact to a less-than-significant level. 10

Further, these mitigation measures are insufficient because CEQA requires that the Project include fair-share mitigation for all significant cumulative impacts. (*Napa Citizens for Honest Gov't v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 364.) Here, this means mitigation of the full extent of the Project's GHG impacts. The three mitigation measures that would be incorporated do not constitute the Project's fair share of emissions, and therefore the City should have adopted more mitigation measures to mitigate the Project's significant impact.

MM GHG-2a would incorporate rooftop solar, but without specifically mentioning the number of solar panels that would be installed. As such, it is vague and ambiguous and, consequently, violates CEQA. Even with this mitigation measure, the Project would have a significant impact because it would conflict with the Visalia CAP that emphasizes solar panels be installed, whereas MM GHG-2a at minimum would only implement "solar-ready" rooftop design. (DEIR, p. 3.8-36.) Therefore, even after mitigation, the Project would still pose a 11 conflict with the Visalia CAP, one of the City's chosen plans for demonstrating a less than significant impact. 11 CONT

MM GHG-2b would limit warehouse usage to dry storage, but is unenforceable because it does not commit the City to the dry storage usage, because it contains provisions that must be complied with if the warehouse is used for cold storage. 12

MM Air-2d would incorporate electric vehicle charging infrastructure for 20% of the Project's parking spaces, representing the minimum requirement of California's building code. This would not be sufficient to mitigate the Project's potentially significant impact from vehicle GHG emissions. 13

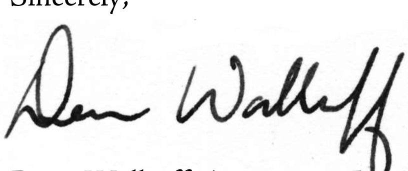
There is no evidence that these mitigation measures would mitigate the Project's impact to a less-than-significant extent, let alone the fair share of the Project's significant GHG impact. Even with these mitigation measures incorporated, the Project would still conflict with applicable plans, policies, and regulations for the reduction of GHGs and would therefore be a significant impact that would require further mitigation to the extent CEQA requires. 14

Conclusion

In conclusion, the determination of less-than-significant GHG impact after mitigation violates CEQA because the lead agency is required to mitigate significant cumulative impacts to the fair share extent when it finds a potentially significant impact, not just to the point of "less than significant." Nonetheless, the proposed mitigation measures would not be capable of reducing the Project's GHG impact to a less-than-significant level because it would still conflict with the Scoping Plans and the Visalia CAP. 15

Please put Advocates for the Environment on the list of interested parties to receive updates about the progress of this potential project approval. We make this request under Public Resources Code, section 21092.2.

Sincerely,



Dean Wallraff, Attorney at Law
Executive Director, Advocates for the Environment

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Organizations

Advocates for the Environment (AFTE)

Comment AFTE-1

The comment provides a brief summary of the project description, introduces Advocates for the Environment as a non-profit public interest law firm, and states the commenter's mission. The commenter has reviewed the Draft EIR for the proposed project and hereby provides comments on the sufficiency of the Draft EIR's greenhouse gases (GHG) analysis under CEQA.

Response to AFTE-1

This comment does not directly pertain to the EIR analysis, does not directly apply to the CEQA process, and does not change the conclusions in the EIR; therefore, no changes to the document have been made or are required.

Comment AFTE-2

The commenter asserts that given the current regulatory context and technological advancements, a net-zero significance threshold is feasible and "extensively supportable." The commenter provides general information regarding the source of GHG emissions, and notes that it is more affordable to construct new projects as net-zero than seek to obtain the same level of GHG reductions through retrofitting of existing buildings. The commenter goes on to note how climate damage will continue until net-zero emissions is required, references State law mandates addressing net-zero emissions in 2045 and concludes summarily that it is "economically unsound to construct new buildings that are not net-zero." The commenter purports to provide examples of several large-scale projects that have moved forward as net-zero communities after losing CEQA lawsuits to environmental groups and notes that the project should do the same (i.e., move forward as a net-zero community).

Response to AFTE-2

The comment is noted for the record. To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further changes to the document have been made or are required.

With respect to the commenter's conclusion that the project should "move forward as a net-zero community," the following response is provided.

As a preliminary matter, the commenter does not specifically question the GHG impact analysis or less than significant determination made in the Draft EIR. As previously noted, the City is not legally authorized under CEQA to impose mitigation measures or require applicants to incorporate project design features for impacts that have been determined to be less than significant. Therefore, imposing an obligation on the project to be "net-zero" would not be permitted under the law.

Furthermore, regarding the commenter's conclusory statements as to the economic feasibility of constructing new projects as net-zero, this is not supported by substantial evidence in the record and is not relevant to the City's exercise of its discretion as to the appropriate threshold to utilize in evaluating GHG impacts. The economic feasibility of requiring industrial buildings, specifically, and industrial operations more generally to be "net-zero" is highly questionable given that most of the operational GHG emissions are the result of heavy-duty truck traffic. Except in very limited circumstances not relevant here, most industrial users do not own or control their own truck fleets, and do not have any ability to control in perpetuity the truck fleets utilized by tenants. Moreover, given the volume of trucks anticipated to access the project site, the current high cost and relatively limited availability of electric trucks, and the current limitations related to electric vehicle (EV) infrastructure to serve heavy and medium-duty electric trucks, the commenter's assertion that it is economically feasible for the project to be net-zero is not accurate or supported by substantial evidence in the record. The comment has been noted for the record. The commenter does not otherwise raise a substantive issue on the content of the EIR. The Lead Agency is of the opinion that potential project impacts related to air quality and GHG have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis.

Comment AFTE-3
The commenter builds on what was presented in Comment AFTE-2. It specifically requests that the City utilize a net-zero significance threshold, which it claims is "well-supported" by GHG reduction plans such as ARB's Scoping Plans. The commenter concludes by proclaiming that doing so would not only "be the right thing" but also "protect[ing] the City and applicant from CEQA litigation."

Response to AFTE-3
Contrary to the commenter's assertion, neither the 2017 Scoping Plan, the 2022 Scoping Plan Update, nor any requirements under CEQA require lead agencies such as the City, to utilize a net-zero significance threshold. As described in the ARB 2017 Scoping Plan, "achieving net-zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project. . . and the inability of a project to mitigate its GHG emissions to net-zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA" (page 102).

In addition, the commenter erroneously cites language from the 2022 Scoping Plan that is not applicable to the proposed project. The net-zero threshold recommendation as stated in Appendix D of the 2022 Scoping Plan, was intended for residential and mixed-use development that is not applicable to the proposed mixed-use industrial project. As discussed in Draft EIR Section 3.8, Greenhouse Gas Emissions, consistent with Section 15064.4(b) of the CEQA Guidelines, the City, as Lead Agency, can take into account the following three considerations, among others, in assessing the significance of impacts from GHG emissions.

- **Consideration No. 1**: The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- **Consideration No. 2**: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration No. 3**: The extent to which the project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the

> project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

Section 3.8, Greenhouse Gas Emissions, of the Draft EIR robustly evaluates the proposed project's GHG impacts, both from a quantitative and qualitative perspective. Section 3.8.4 describes the significance criteria, assumptions and methodologies used by the City, in its discretion, to conduct this impact analysis.

With respect to the quantitative analysis, as detailed in the Draft EIR, it sets forth the reduction from Business As Usual (BAU) in the 2030 target year to show the progress anticipated prior to applying reductions from new strategies contained in the 2017 Scoping Plan Update. To determine significance, the analysis first quantifies project-related GHG emissions under a BAU scenario, and then compares these emissions with emissions that would occur when all project-related design features are accounted for, and when compliance with applicable regulatory measures is assumed. The standard and methodology are explained in further detail in the Draft EIR.

The analysis also included qualitative assessments of compliance with the 2017 Scoping Plan Update and the 2022 Scoping Plan Update to support GHG significance findings under Impact GHG-2.

For the reasons described above, CEQA does not require the City to utilize a quantitative net-zero GHG emissions as a significance threshold to evaluate the proposed project. Achieving net-zero GHG emissions to evaluate the proposed project is not necessary to provide a legally defensible GHG threshold and, as acknowledged by the State of California, may not be feasible or appropriate for every project. Contrary to the commenter's statements, ARB's Scoping Plans support the Draft EIR's threshold and methodologies. For example, as described in the ARB 2017 Scoping Plan:

> *"achieving net-zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net-zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA.* Lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with this Scoping Plan, the State's long-term GHG goals, and climate change science." (emphasis added)

The fact that the commenter reports that two very large developments (i.e., Newhall and Tejon Ranch projects) eventually decided to move forward as net-zero communities as a means of resolving ongoing litigation, does not mean that the City is required to adopt a quantitative net-zero emissions threshold under CEQA, nor does it constitute substantial evidence that achieving net-zero emissions would be feasible for the project.

Additionally, for informational purposes, it is noted that the proposed project would develop a mixed-use industrial park without residential uses, whereas the examples in this comment refer to mixed-use residential projects. Unlike Newhall Ranch and Tejon Ranch, each of which contemplated about 20,000 dwelling units as well as other nonresidential uses, mixed-use industrial developments, such as the proposed project involve different uses and thus different considerations. For instance, the vast majority of operational GHG emissions from the project, similar to other industrial developments, would result from mobile-source emissions associated with trucks. For the reasons noted above, imposing a net-zero emissions requirement on the project, including the truck fleets used during operations, is not feasible and not required under the law.

Therefore, the Draft EIR's quantitative and qualitative thresholds utilized to evaluate the proposed project's GHG impacts are appropriate under CEQA and within the City's discretion. The commenter does not otherwise raise a substantive issue on the content of the EIR, and the comment does not contain any information requiring changes to the Draft EIR. The Draft EIR further explained its analytical approach for purposes of evaluating GHG impacts. Under applicable provisions of CEQA and as held in the California Supreme Court's decision in *Center for Biological Diversity v. California Department of Fish and Wildlife*, GHG impacts would be considered significant if the proposed project would:

- Conflict with a compliant GHG Reduction Plan if adopted by the lead agency;
- Exceed threshold of significance that the lead agency determines applies to the project; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs.

The foregoing considerations utilized in applying the selected thresholds are consistent with the Appendix G Environmental Checklist questions of the CEQA Guidelines. The first impact criterion, "conflict with a compliant GHG Reduction Plan if adopted by the lead agency," cannot be applied to the proposed project since the City's Climate Action Plan (CAP) is not considered a qualified GHG Reduction Plan as discussed in the Draft EIR Section 3.8.4 Greenhouse Gas Emissions -Thresholds of Significance. Moreover, the other two impact criteria presented closely align with the two Appendix G Environmental Checklist questions for GHG emissions. Therefore, the City, in its discretion, properly utilized the above considerations in selecting the thresholds and conducting the GHG impact analysis.

The analysis contained in the Draft EIR included both (1) a quantitative determination of the GHG emissions that would be generated by the proposed project, and (2) a qualitative assessment that addresses consistency with the robust regulatory framework, including SB 32 targets, the 2017 Scoping Plan and 2022 Scoping Plan Update.

With respect to the quantitative threshold, as discussed in detail in the Draft EIR, the SJVAPCD *Guidance for Valley Land Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* includes thresholds based on whether the project would reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels. This level of GHG reduction is based on the target established by ARB's AB 32 Scoping Plan, approved in 2008. The ARB recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [greenhouse gas emission reduction] measures also put the State on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels."

Consistent with the *Newhall Ranch* court decision and as further detailed in the robust analysis set forth in Draft EIR Section 3.8, Greenhouse Gas Emissions, a project BAU analysis based on substantial evidence in the record was prepared for the project, which assessed "consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities." Therefore, the Draft EIR evaluated project GHG emissions against an appropriate threshold that also evaluates consistency with Statewide GHG emissions reduction goals. In addition, the City of Visalia identifies the following thresholds in its CAP: 15 percent reduction from BAU levels in the year 2020 and a 30 percent reduction from BAU levels in the year 2030.

As explained in more detail in Section 3.8, Greenhouse Gas Emissions, of the Draft EIR, the proposed project is expected to become operational in phases beginning in 2025 and assumes full buildout in 2028, which is beyond the AB 32 target year. As a result, until a new threshold is identified for projects constructed after 2020, the only threshold to address significance is based on making continued progress toward the SB 32 2030 goal. As noted in the Draft EIR, this approach compares estimates of project emissions in the 2030 milestone year with the existing threshold to show the extent of progress achieved with existing regulations and the incorporation of specific project design features to address Considerations 1 and 2.

The Draft EIR also employed a qualitative evaluation by analyzing the project's consistency with the 2017 and 2022 Scoping Plans as well as relevant provisions from the City's CAP and General Plan. See Response to AFTE-4, below.

Therefore, the Draft EIR used the appropriate thresholds to evaluate GHG impacts. The comment has been noted for the record. The commenter does not otherwise raise a substantive issue on the content of the EIR the Lead Agency is of the opinion that potential project impacts related to air quality and GHG have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis is required.

Comment AFTE-4
The comment notes that the Draft EIR derived the significance threshold by relying on Appendix G of the CEQA Guidelines, and then summarizes the Draft EIR's conclusion that the project could have a potentially significant GHG impact because the project could conflict with applicable plans, policies, and regulations for the reduction of GHG emissions. The comment also notes that the Draft EIR presented the project's estimated annual GHG emissions, which were quantified using CalEEMod, and then asserts that the Draft EIR erroneously concluded these potentially significant impacts could be reduced to less than significant with implementation of the identified mitigation. The commenter alleges that the project would still have a significant impact even after implementation of mitigation, and therefore the City should have adopted more measures to fully mitigate "the full extent" of the project's GHG impacts.

Response to AFTE-4
The comment is noted for the record. To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

To the extent the commenter raises specific issues with respect to the nature of the GHG threshold utilized in the Draft EIR, CEQA does not require the City to utilize a quantitative net-zero significance threshold to evaluate the proposed project's GHG impacts. To the contrary, lead agencies, such as the City, have discretion to formulate their own significance thresholds (State CEQA Guidelines § 15064.7). The determination by a lead agency of whether a project may have a significant effect on the environment calls for careful judgment, based to the extent possible, on scientific and factual data (State CEQA Guidelines §§ 15064(b)(1) and 15064.4(a)).

Thus, establishing a single threshold of significance, while perhaps desirable in certain instances, may not be feasible for every environmental impact, because the significance of an impact may vary with the setting. CEQA Guidelines Section 15064.4, explains as follows:

> "(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency shall make a good faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project.
>
> A lead agency shall have discretion to determine, in the context of a particular project, whether to:
>
> (1) Quantify greenhouse gas emissions resulting from a project; and/or
> (2) Rely on a qualitative analysis or performance based standards."

CEQA Guidelines Appendix G includes sample questions for determining whether impacts related to GHG emissions and energy consumption are significant. These questions reflect the significant input of planning and environmental professionals at the California Governor's Office of Planning and Research (OPR) and the California Natural Resources Agency, based on robust input from stakeholder groups and experts in various other governmental agencies, nonprofits, and leading environmental consulting firms. They also reflect the requirements of laws other than CEQA, such as Assembly Bill (AB) 32 and Senate Bill (SB) 32. As a result, most lead agencies derive their significance criteria from the questions posed in Appendix G. The City has chosen, in its discretion, to do so for this project. The final determination of whether a project is significant is within the purview of the City, as Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines

The basis for the commenter's opinion that the Draft EIR's impact conclusions are flawed is not clear. However, this response provides a summary of the methodology used by the Draft EIR in making the GHG impact conclusions in a good faith attempt to respond to the concerns raised.

See Responses to AFTE-2 and AFTE-3, above, regarding the basis for the City's selection of significance thresholds and a summary of the quantitative and qualitative evaluations that were conducted.

With respect to the qualitative consistency analysis referenced in the comment, an evaluation of the project's consistency with the 2017 and 2022 Scoping Plans (as well as the City's CAP and General Plan) serves as a roadmap for evaluating a project's current design, and to determine whether it complies with current policies and planned reduction measures for GHG emissions. The comparison of a project design to Scoping Plan proposals is not by itself a metric for determining project-level significance, but a step in showing how the project supports current regulations and is aligned with future GHG reduction strategies in development stages.

As discussed in detail in the Draft EIR, the 2022 Scoping Plan was recently adopted in December 2022. The 2022 Scoping Plan identifies strategies to meet the State's SB 32 GHG reduction goals as well as feasible methods to achieve carbon neutrality by 2045. Appendix D of the 2022 Scoping Plan identifies the importance of local jurisdiction actions, such as cities and counties, because these entities have direct control over land use decisions in much of the State. While local jurisdictions influence land use development and building GHG reduction measures, the State largely influences transportation GHG reduction measures. As such, the 2022 Scoping Plan provides a strategy that is capable of reaching the SB 32 target if the measures included in the plan are implemented and achieve reductions within the ranges expected. Nevertheless, to date, neither a new quantitative threshold nor Best Performance Standards (BPS) have been identified for projects constructed after 2020. Therefore, significance is based on making continued progress toward the SB 32 2030 goal.

The State's regulatory program is able to target both new and existing development because the two most important strategies—motor vehicle fuel efficiency and emissions from electricity generation—obtain reductions equally from existing and new sources. This is because all vehicle operators use cleaner low carbon fuels and buy vehicles subject to the fuel efficiency regulations, and all building owners or operators purchase cleaner energy from the grid that is produced by increasing percentages of renewable fuels. As the Draft EIR sets forth in detail, this includes regulations on mobile sources such as: the Pavley standards that apply to all vehicles purchased in California, the Low Carbon Fuel Standard (LCFS) that applies to all fuel used in California, and the Renewables Portfolio Standard (RPS) and Renewable Energy Standard that apply to utilities providing electricity to all California homes and businesses.

The reduction strategy where new development is required to do more than existing development is building energy efficiency and energy use related to water conservation regulations. For example, new projects are subject to Title 24 Energy Efficiency Standards, CALGreen Code Standards, and Model Water Efficient Landscape Ordinance (MWELO) water conservation requirements. New buildings and landscapes are much more energy-efficient and water efficient than the development that has been built over the past decades and will require much less energy. Title 24 is updated about every 3 years with the goal of reaching zero-net-energy from new residential buildings by 2020 and new commercial buildings by 2030. The proposed project's commercial and industrial buildings would be constructed in and after 2025 and would be required to comply with the regulations in effect at the time building permits are issued.

Taking the foregoing into appropriate account, the Draft EIR provides a robust analysis that discloses potential impacts and identifies feasible mitigation, and therefore the commenter incorrectly asserts that the project would have a remaining significant impact even after the proposed mitigation. The substantial evidence in the record in this regard includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts to support the Draft EIR's impact conclusions

(CEQA Guidelines § 15064(f)(5)). This comment has been noted for the record and revisions to the Draft EIR are not necessary.

As noted in the Executive Summary of the Draft EIR on pages ES-30 through ES-31, and described in detail in Section 3.8, Greenhouse Gas Emissions, the proposed project was found to be less than significant under Impact GHG-1 and less than significant with mitigation incorporated under Impact GHG-2. As noted in Responses to AFTE-2 and AFTE-3 above, the Draft EIR used appropriate thresholds to evaluate GHG impacts and CEQA does not require a quantitative net-zero threshold to properly evaluate GHG impacts under CEQA. The Draft EIR identified several mitigation measures to address GHG impacts; in addition, the Draft EIR identified numerous measures that would not only mitigation air quality impacts but would further support the State's efforts at reducing GHG emissions.

For example, as described in Section 3.3 Air Quality, the Draft EIR included MM AIR-2c, which would require (1) that all on-site off-road and on-road service equipment be zero-emission or all-electric, and (2) that all project buildings would be designed to support the use of zero-emission or all-electric service equipment. MM AIR-2d would require each project applicant, in connection with an individual specific development proposal, to include infrastructure for EV charging stations into a minimum of 20 percent of all vehicle parking spaces (including parking for trucks) for the subject proposal, consistent with the applicable CALGreen Tier 1 Nonresidential Mandatory Measure (Section A5.106.5.3). Furthermore, MM AIR-2d would require the design of the buildings' electrical room to hold additional panels that may be needed to supply power for the future installation of EV truck charging stations on-site. MM AIR-2e would require the relevant project applicant to include signage and pavement markings along project site driveways and internal roadways to clearly identify on-site circulation patterns, minimize unnecessary on-site vehicle travel, and reduce vehicle idling.

The commenter provides no evidence for these assertions other than their unsubstantiated assertion to the same effect. The Draft EIR's impact conclusions are supported by substantial evidence in the record. The Draft EIR includes full disclosure of potential impacts and identified mitigation under Impact GHG-2 reduced any potentially significant impacts to less than significant levels. The Lead Agency is of the opinion that potential project impacts related to air quality impacts and GHG have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required.

Comment AFTE-5
The commenter notes that the Draft EIR included a discussion of the 2022 Scoping Plan, 2017 Scoping Plan, Visalia CAP, and the Visalia General Plan to support the City's conclusion that the proposed project would not conflict with any applicable plan, policy, or regulation for GHG emissions reductions. The commenter asserts that the significance analysis violated CEQA by "overlooking the project's conflict" with the 2022 Scoping Plan and the 2017 Scoping Plan, as well as failing to acknowledge and analyze all applicable plans for the reduction of GHGs.

Response to *AFTE-5*
To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

While that comment makes the general assertion that the Draft EIR failed to acknowledge and analyze all applicable plans for the reduction of GHGs, the commenter does not explicitly indicate any additional plans that should have been included in this portion of the comment. Response to AFTE-9 clarifies what the commenter purports should have been analyzed.

To the extent the comment is framing the concern as one that relates to the appropriate significance threshold, see Responses to AFTE-2 and AFTE-3 above (CEQA does not require an evaluation of impacts against a threshold that requires net-zero GHG emissions).

Moreover, the robust regulatory framework in place on a State, regional and local level, including, without limitation, EO B-55-18, does not contain provisions that "prohibit the use of gasoline, diesel and natural gas." Thus, the commenter's assertion that the use of these fuels creates a conflict for purposes of CEQA review is inaccurate under the law.

The Draft EIR contains a thoughtful consistency analysis addressing all relevant plans and policies designed to reduce GHG emissions, including taking into appropriate account EO B-55-18. For example, in evaluating Impact GHG-2, the Draft EIR explains that its "analysis is accomplished via an assessment of the proposed project's compliance with the Visalia CAP, Scoping Plan measures contained in the 2017 Scoping Plan and 2022 Scoping Plan Update, and the Visalia General Plan."

Moreover, as detailed in Section 3.8, Greenhouse Gas Emissions, each of the project phases would achieve reductions beyond the ARB 2020 21.7 percent target and the SJVAPCD 29 percent reduction from BAU requirements from adopted regulations in their respective operational years. As shown in the emission estimates discussed in the Draft EIR and detailed in the Air Quality Report (Appendix B), in 2025, the proposed project would be expected to generate a total of approximately 63,290 metric tons carbon dioxide equivalent (MT CO_2e) per year, which would be an approximately 37.05 percent reduction in GHG emissions from BAU (100,540 MT CO_2e per year). This is above the 29 percent reduction required by the SJVAPCD threshold and well exceeds the 21.7 percent average reduction from all sources of GHG emissions now required to achieve AB 32 targets. Thus, the 37.05 percent reduction from BAU is 15.35 percent beyond the average reduction required by the State from all sources to achieve the AB 32 2020 target. Since the project buildout would occur after 2020, additional analysis was conducted to demonstrate consistency with the SB 32 2030 target. As shown in the Air Quality Report, the proposed project would achieve a reduction of 40.9 percent from BAU by the year 2030 with compliance with applicable regulations and identified project design features incorporated.

As described more fully in the Draft EIR, the 2022 Scoping Plan addresses AB 1279, which codified EO B-55-18's target for California to achieve and maintain carbon net neutrality by 2045 (equivalent to a reduction in Statewide anthropogenic GHG emissions of 85 percent below 1990 levels). The 2022 Scoping Plan establishes a scenario by which the State may achieve this goal by 2045 or earlier. The Draft EIR includes an evaluation of the project's consistency with the 2022 Scoping Plan and found that the proposed project would be consistent, based on its design features, compliance with the robust regulatory framework, and with incorporation of MM AIR-2c, MM AIR-2d, MM AIR-2e, MM AIR-2f, MM GHG-2a (revised), and MM GHG-2b. Based on the foregoing, the Draft EIR disclosed in Impact GHG-2, on page 3.8-50 of the Draft EIR, "the proposed project would be consistent with State

GHG Plans and would further the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030, 80 percent below 1990 levels by 2050, 85 percent below 1990 levels by 2045, and does not obstruct their attainment after incorporation of mitigation." As detailed in the Draft EIR, the proposed project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

Regarding the use of diesel-powered heavy-duty vehicles, see Responses to AFTE-2 through 8 above, which explain how the Draft EIR properly evaluated and disclosed the GHG emissions that would result from the project's commercial and industrial components, including the use of diesel-powered heavy-duty vehicles during operations. See also Responses to AFTE-2 and AFTE-3 above, which confirms that CEQA does not require each individual project to demonstrate carbon neutrality and thus the assertion that the Draft EIR is required to use a quantitative net-zero-emission threshold is inaccurate under the law.

Moreover, the commenter's assertion that a determination that a subject development would be "inconsistent" with "any applicable policy" would constitute a significant impact is also incorrect under the law. The Draft EIR contains a thoughtful analysis that considers the project's consistency with all applicable plans and policies and takes a holistic approach as to the determination whether the project would help or hinder the State's achievement of its GHG emission reduction goals.

With respect to the assertion that the project "conflicts" with the 2022 Scoping Plan and 2017 Scoping Plan, the City, in its discretion, disagrees with the commenter in this regard. The Draft EIR considered this issue at length and included evaluations of the project's consistency with the 2022 Scoping Plan and the 2017 Scoping Plan (as well as the City's CAP and General Plan). As detailed more fully therein, the project was determined to be consistent with both plans. The basis for this consistency includes the following.

The Draft EIR and Final EIR (1) properly assume compliance with a robust regulatory framework (including, without limitation, citing relevant General Plan policies as well as guidance from the ARB and the Air District and set forth a thoughtful consistency analysis related thereto; (2) fully disclose all significant impacts; (3) identify all feasible mitigation measures to mitigate, avoid or reduce the identified significant impacts; and (4) include a summary of all such measures that will be incorporated into the Mitigation Monitoring and Reporting Program (MMRP) that will be considered for adoption by the City Council in connection with its certification of the EIR and thereafter imposed as enforceable conditions of approval.

The proposed project is consistent with its existing General Plan land use designation of Industrial and Light Industrial; this reflects the long-planned urban development vision for the project site, which contemplates a variety of commercial, industrial and light industrial uses including, among others, warehousing and distribution. The proposed project has been designed to incorporate applicable development standards and design guidelines to help ensure it would be consistent with the urbanizing, industrial character of this portion of the City of Visalia. The proposed project would incorporate a number of design features and be required to comply with a robust regulatory framework, all of which would enhance its sustainability and help to reduce GHG emissions. For example, see Table 3.8-4 of the Draft EIR (Summary of Applicable Greenhouse Gas Regulations).

Furthermore, as discussed in detail in Section 3.14, Transportation, the proposed project would implement the Transportation Demand Management (TDM) measures including installation of up to 60 secure bicycle storage lockers (MM TRANS-10a) and installation of a bike path along Modoc Ditch, which would connect to other planned trail improvements (MM TRANS-10b). The foregoing would reduce GHG impacts associated with VMT.

Moreover, the proposed project would be required to comply with the following mitigation measures: MM AIR-2c, MM AIR-2d, MM GHG-2a, MM GHG-2a, and MM GHG-2b.

Moreover, from a construction-related standpoint, MM AIR-2a requires the use of Tier IV or Tier IV Equivalent Construction Off-Road Equipment. In addition, there are extensive existing regulations to which the proposed project would be required to comply that would other further net-zero-emission objectives. For example and among others, ARB has adopted its 2013 Optional Low-NO_X Standard of 0.02 gram of oxides of nitrogen (NO_X) per brake horsepower-hour for all heavy-duty trucks; there are also regulations that govern idling restrictions for heavy-duty vehicles (see, e.g., ARB On-Road Heavy-Duty Vehicle Program would require heavy-duty truck owners to limit idling to 5 minutes). In addition, the new ARB Advanced Clean Cars II Regulations Resolution 22-12 would require new gasoline powered cars purchased in the State to be zero-emission, which would lead to future tenants' vehicle fleets containing some Zero-Emission Vehicles (ZEVs).

MM AIR-2c requires that all on-site off-road and on-road service equipment utilize zero-emission technology, subject to the same being commercially practicable. MM AIR-2d requires infrastructure for EV charging stations into a minimum of 20 percent of all vehicle parking spaces (including parking for trucks), consistent with the applicable CALGreen Tier 1 Nonresidential Mandatory Measure (Section A5.106.5.3).

Originally, MM GHG-2a required that the proposed project install one of the following: (i) rooftop PV solar panels, (ii) solar-ready rooftop design that shall support the installation of rooftop PV panel, as feasible, or (iii) roofing material contains light coloring with a solar reflective index greater than 78. A Notice of Preparation (NOP) for the proposed project was issued on August 30, 2022. These options were suggested by the SJVAPCD in their NOP comment letter dated September 2, 2022 (see Appendix A, of the Draft EIR). The latest 2022 California Building Standards Code (CBC) went into effect on January 1, 2023. The latest California Building Energy Efficiency Standards Section 140.10 now requires solar PV systems for the land uses such as warehouses, retail, and restaurants. The proposed project, which includes warehouse, self storage facility, drive-through restaurants, and convenience store would be subject to the solar PV requirements, unless otherwise exempt per Section 140.10. The required solar PV size is calculated based on the proposed project's climate zone, amount of conditioned space, and space usage. The required solar PV system is intended to offset the annual electrical consumption of a mixed-fuel building such that it would self-utilize about 80 percent of the annual solar PV generation without battery storage, and about 90 percent with battery storage, over a year.[2] In response to comments, the City agreed to modify MM GHG-2a to reflect the obligation under State law that the proposed project would be required to adhere to. This is an inadvertent omission of solar panel requirements, The subsequent modification of mitigation

[2] California Energy Commission. 2022. Nonresidential Solar PV General Information. Website: https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/online-resource-center/2022-0. Accessed June 20, 2024.

measure adds clarity to the EIR, it does not reflect a new or substantially increase significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5 MM GHG-2b includes requirements that would limit GHG emissions from Transport Refrigeration Units (TRUs) in the event that any portion of the warehouse land use is used for cold storage uses. If any project warehouse(s) are used for cold storage, then prior to the issuance of occupancy permits for those building(s), the City of Visalia shall confirm that tenant lease agreements include contractual language that requires all TRUs entering the project site be plug-in capable.

As such, given the nature of the project combined with the requirement to adhere to all applicable laws and regulations as part of a robust regulatory framework, along with incorporation of identified mitigation, there is substantial evidence in the record to support the City's determination that the project would not conflict with either the 2022 Scoping Plan or the 2017 Scoping Plan. Therefore, no revisions to the Draft EIR are warranted. In fact, contrary to the commenter's assertions, given the foregoing, the project would contribute to the State's overall climate goal of decarbonization that is a central theme of the 2017 and 2022 Scoping Plans.

Consistent with the comment, as discussed in the Draft EIR (see Chapter 3.6, Energy, and Chapter 3.8, Greenhouse Gas Emissions), the proposed project would be required to be designed in compliance with the applicable CBC, which reflect some of the most stringent requirements in the nation.

MM GHG-2a has been revised as follows:

MM GHG-2a ~~Rooftop Solar~~ Solar Photovoltaic System

~~Prior to issuance of the first building permit in connection with an individual specific development proposal, the relevant project applicant shall provide the City of Visalia Planning Department reasonable documentation demonstrating that each of the buildings that are covered by the subject individual specific development proposal would be designed with one of the following: (i) rooftop photovoltaic solar panels, (ii) solar-ready rooftop design that shall support the installation of rooftop photovoltaic panel, as feasible, or (iii) roofing material contains light coloring with a solar reflective index greater than 78.~~

Prior to issuance of the first building permit in connection with an individual specific development proposal, the City of Visalia shall confirm that the subject proposal has been designed to include the following: a solar photovoltaic (PV) system in accordance with 2022 Building Energy Efficiency Standards (Energy Code) Section 140.10. The required solar PV system shall be sized based on calculations provided in Section 140.10(a) of the Energy Code, which includes a number of factors such as the amount of conditioned space. Unconditioned buildings, except unoccupied or unused first-time tenant improvement spaces, do not need to be part of the solar sizing calculations. All buildings required to have a solar PV system pursuant to this MM GHG-2a must also have a battery storage system.

See also solar photovoltaic (PV) system to be included in accordance with 2022 Energy Code Section 140.10. The required solar module size would be calculated based on the proposed project's climate zone, amount of conditioned space, and space usage. The Draft EIR determined that the proposed project would result in a less than significant impact after implementation of MM AIR-2d, MM GHG-2a, and MM GHG-2b; this determination remains accurate with the updated MM GHG-2a, which would further increase opportunities for the use of on-site renewable solar power generation. An obligation to supply 100 percent of the power needed to operate all non-refrigerated portions of the project is not required under CEQA. Therefore, no further mitigation is required and no change to the conclusions in the Draft EIR are warranted.

Under *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1993) 6 C4th 1112 (Laurel Heights II) and the CEQA Guidelines (14 California Code of Regulations [CCR] § 15088.5(a)(3)), when information added to the Final EIR includes a new mitigation measure, recirculation is required only if the new mitigation measure meets all of the following criteria:

- It is feasible;
- It is considerably different from the alternatives or mitigation measures already evaluated in the Draft EIR;
- It would clearly lessen the project's significant environmental impacts; and
- It is not adopted.

Recirculation is required only if each of the above is established. *South County Citizens for Smart Growth v. County of Nevada* (2013) 221 CA4th 316, 330. These modifications to MM GHG-2 add clarity to the EIR and do not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

See also Response to AFTE-4. These comments have been noted for the record. Based on the information presented above, the Lead Agency is of the opinion that project impacts related to air quality have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarification as noted above.

Comment AFTE-6
The commenter notes that the 2022 Scoping Plan sets goals for 50 percent of all industrial energy demand to be electrified by 2045, and "displacing fossil fuel mix" with various low carbon alternatives. The commenter goes on to assert that the proposed project does not appear to be consistent with these goals because the proposed project would use renewable natural gas blends for heating and would not fully displace its fossil fuel use with low carbon alternatives. Thus, the commenter asserts that the proposed project is in conflict with the 2022 Scoping Plan due to its "considerable reliance on diesel fuel and other nonrenewable energy sources in its operations."

Response to *AFTE-6*
As a preliminary matter, the City disagrees with the commenter's interpretation of the nature of consistency review under CEQA. The law does not require a finding of inconsistency if a project is not

able to fully accomplish every aspect of an applicable plan designed to reduce GHG emissions. Rather, the consistency analysis is focused on whether the subject development would impede achievement of the goals and policies set forth in such plans.

Contrary to the commenter's assertions, the Draft EIR contains a detailed discussion of the robust regulatory framework that would apply to the project as well as a thoughtful consistency analysis. For example, as described in Section 3.6, Energy, on pages 3.6-12 through 3.6-13 of the Draft EIR, the proposed project would be subject to then-current Title 24 Energy Efficiency and CALGreen Standards, which are some of the most stringent in the nation and which include, among other things, minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. In addition, Southern California Edison (SCE), which supplies electricity to the project site and vicinity, would be required by SB 100 to incrementally increase the proportion of renewable electricity generation supplying its in-state retail sales until it reaches 100 percent carbon-free electricity generation by 2045. Furthermore, the proposed project would provide solar photovoltaic systems in compliance with 2022 California Building Energy Efficiency Standards Section 140.10. As such, there is substantial evidence in the record to support the Draft EIR's conclusion that the project is consistent with the 2022 Scoping Plan and would not impede the State from achieving the goals for 50 percent of all industrial energy demand to be electrified by 2045 and displacing fossil fuels with various low carbon alternatives.

See also Responses to AFTE-4 and AFTE -5 regarding the Draft EIR's consistency analysis with the 2022 Scoping Plan. The comments have been noted for the record. The commenter does not raise an issue related to the adequacy of the Draft EIR, no and revisions to the Draft EIR are not necessary.

Therefore, no revisions are required in response to this comment.

Comment AFTE-7
The commenter notes that the 2017 Scoping Plan was adopted to facilitate compliance with SB 32, which requires Statewide GHG emissions to be reduced by 40 percent below 1990 levels by 2030. The commenter then asserts that the consistency analysis in the Draft EIR does not explain how the project is consistent with "any of the goals" including GHG reductions by 2050 of 80 percent below 1990 levels. Rather, the comment states that the project's per service population GHG emissions would "greatly exceed" the 2050 target and instead the Draft EIR should have been compared to the targets of 6 MT CO_2e/capita by 2030 and 2 MT CO_2e/capita by 2050. The commenter concludes by asserting that the proposed project would have a significant impact without the required mitigation.

Response to AFTE-7
With respect to the proper significance thresholds to be utilized here, those that the commenter suggested are intended for Plan-level Greenhouse Gas Emissions reduction goals, such as a CAP, not project-specific thresholds. The targets of 6 MT CO_2e/capita by 2030 and 2 MT CO_2e/capita by 2050 set forth in the 2017 Scoping Plan, page 99 of the 2017 Scoping Plan clearly states that these goals are appropriate for the plan level (city, county, subregional, or regional level, as appropriate), but not for specific individual projects because they include all emissions sectors in the State. Therefore, these targets are not appropriate targets to be analyzed in the proposed project's Draft EIR. As such, this threshold would not apply to the proposed project. Moreover, the commenter presents no

evidence to substantiate the assertion that the project is inconsistent with "any of the goals" including GHG reductions or that the proposed mitigation is ineffective to reduce impacts.

As explained further herein, the Draft EIR evaluated GHG impacts against the appropriate thresholds as required by CEQA. Lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with this Scoping Plan, the State's long-term GHG goals, and climate change science. As noted in Responses to AFTE-2 and AFTE-3, the analysis contained in the Draft EIR included both (1) a quantitative determination of the GHG emissions that would be generated by the proposed project, and (2) a qualitative assessment that addressed consistency with the SB 32 targets, the 2017 Scoping Plan and 2022 Scoping Plan Update (as well as the City's CAP and General Plan), which includes measures beyond the 2017 Scoping Plan to meet SB 32 targets. As disclosed in detail in the Draft EIR, this approach compares estimates of project emissions in the 2030 milestone year with the existing target to show the extent of progress that would be achieved by the project based on compliance with existing laws and regulations and the incorporation of specific project design features to address Considerations 1 and 2. The Draft EIR contained a thoughtful consistency analysis, and documents how the project—based on its design features, compliance with a robust regulatory framework and implementation of identified mitigation—would assist the State to make progress toward the emission reduction goals set forth in the 2017 and 2022 Scoping Plans and SB 32. Therefore, the Draft EIR used the appropriate thresholds to evaluate GHG impacts and no revisions are required. See also Responses to AFTE-2 and AFTE -3 for additional discussion as to the thresholds and methodologies used in the GHG impact analysis. This comment does not otherwise raise a substantive issue on the content of the EIR and does not raise an issue related to the adequacy of the analysis therein. Based on the information presented above, the Lead Agency is of the opinion that project impacts related to air quality and greenhouse gases have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarification as noted above and no changes to the EIR are warranted.

Comment AFTE-8
The commenter makes a general assertion that the Draft EIR found that the proposed project would result in a potentially significant impact prior to the incorporation of mitigation.

Response to AFTE-8
The Draft EIR properly identified a potentially significant GHG impact in connection with Impact GHG-2 and identified feasible mitigation. As discussed in Responses to AFTE-2 through AFTE-7 herein, the Draft EIR appropriately analyzed the project's GHG impacts and concluded GHG impacts would be less than significant with mitigation incorporated.

To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment AFTE-9
The commenter provides a summary of Executive Order B-55-18 (EO B-55-18) and notes that the EIR must evaluate consistency with "all other applicable plans" including demonstrating consistency with

EO B-55-18. It then asserts that the project is inconsistent with EO B-55-18 because it does not prohibit the use of gasoline, diesel, and natural gas.

Response to AFTE-9
As explained in Responses to AFTE-2 and AFTE-5 above, it is not feasible to prohibit the use of gasoline, diesel and natural gas for this type of large, mixed-use industrial development or for it to be required to control in perpetuity the types of vehicles used by tenants during project operations. Neither the future tenants nor the City would have control over the vehicles accessing the project site and thus neither would have the ability to enforce any obligation requiring that trucks utilize alternative low carbon fuels during the life of the proposed project. Given the volume of medium-duty vehicles that would be involved as part of the tenants' business operations, practical limitations on the owner's ability to control and enforce such an obligation, along with the current substantial cost and concerns regarding widespread availability of EVs, the suggested mitigation is not feasible. Moreover, the project applicants would be required to provide EV charging infrastructure throughout all parking areas as part of MM AIR-2d, which would improve charging infrastructure in the City and help facilitate the transition to electric vehicles.

Rather, the emissions resulting from the vehicles accessing the project site would largely be influenced by laws and regulations (current and future) that would apply to vehicle manufacturers based on determinations made by the ARB, which is the expert public agency charged to address these issues via a comprehensive regulatory framework applied Statewide based on robust data and evaluation with consideration of multiple complicated factors.

For example, among others, the Advanced Clean Fleet Regulation (CCR, Title 13, §§ 2013, 2013.1, 2013.2, 2013.3, 2013.4, 2014,2014.1, 2014.2, 2014.3, 2015, 2015.1, 2015.2, 2015.3, 2015.4, 2015.5, 2015.6, and 2016) is the latest development in the ARB's decades-long history of setting increasingly stringent emission standards for mobile sources. The Advanced Clean Fleet Regulation will help advance the introduction of zero-emission technologies into California's truck and bus fleets requiring fleets that are well suited for electrification to reduce emissions through requirements to both phase-in the use of ZEVs for targeted fleets. In addition, the Advanced Clean Trucks regulation requires that manufacturers only manufacture ZEV trucks starting in the 2036 model year. Truck fleets that serve the proposed project would be required to meet these ZEV requirements which would further reduce GHG emissions and phase out fossil fuel use.

Therefore, the Draft EIR properly determined that the proposed project is consistent with all applicable plans and policies seeking to reduce GHG emissions and would not prohibit, prevent or impede the State of California from achieving the goals set therein, including, without limitation, EO B-55-18 (i.e., the proposed project would not result in barriers to the State achieving net-zero emissions). As such, all applicable plans and policies, including EO B- 55-18, were addressed in the Draft EIR. The comment has been noted for the record. The comment does not raise an issue related to the adequacy of the Draft EIR, no and revisions to the Draft EIR are warranted.

Comment AFTE-10
The commenter provides a general summary of CEQA requirements with respect to the identification of impacts and mitigation, and purports that the mitigation measures identified to reduce GHG impacts are insufficient because CEQA requires that the project include fair share

mitigation for all significant cumulative impacts, consistent with the findings of *Napa Citizens for Honest Gov't v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 364. The commenter claims that, for this project, this means mitigation of the full extent of the project's GHG impacts and therefore more mitigation is necessary.

Response to *AFTE-10*
To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA or provides sustantiation of the claims asserted.

As detailed more fully in the Draft EIR and described in Responses to AFTE-4 and AFTE-5, numerous feasible mitigation measures were identified under Impact GHG-2 that would fully mitigate for the project's potential GHG impacts. Moreover, GHG-2a has been further refined, which would further ensure that GHG impacts are reduced to a less than significant level. The commenter does not raise an issue related to the adequacy of the Draft EIR. The comments have been noted for the record and revisions to the Draft EIR are not necessary.

Comment AFTE-11
The commenter notes that MM GHG-2a allows the project to implement "solar-ready" rooftop design rather than specifying a specific number of solar panels to be installed. The commenter also purports that, as written in the Draft EIR, MM GHG-2a poses a conflict with the Visalia CAP because the CAP emphasizes solar panels be installed. Therefore, the commenter concludes that the project would have a significant, unmitigated impact.

Response to *AFTE-11*
As noted in Responses to AFTE-5 and AFTE-6, the Draft EIR provides a thoughtful and thorough analysis of the project's potential GHG impacts and identifies feasible mitigation to reduce those impacts to less than significant. The Draft EIR sets forth the detailed regulatory framework that would govern the project and explains that the proposed project would be required to comply with the requirement of these laws and regulations, which are some of the most stringent in the nation. For example, the project would be required to adhere to applicable California Building Energy Efficiency and CALGreen Standards, including, among others, those set forth Section 140.10, which requires solar PV system for the land uses such as warehouses, retail, and restaurants. The proposed project, which includes warehouse, self storage facility, drive-through restaurants, and convenience store would be subject to the solar PV requirements, unless otherwise exempt per Section 140.10. The required solar PV size is calculated based on the project's climate zone, amount of conditioned space, and space usage. The required solar PV system is intended to offset the annual electrical consumption of a mixed-fuel building such that it will self-utilize about 80 percent of the annual solar PV generation without battery storage, and about 90 percent with battery storage, over a year.[3] The foregoing, which is reflected in modified MM GHG-2a, further ensures the project's GHG impacts would be less than significant through compliance with the foregoing, which incorporates a quantitative performance standard. This requirement has replaced the original language in MM GHG-2a. (See also AFTE-5 and Section 3, Errata, of the Final EIR).

[3] California Energy Commission. 2022. Nonresidential Solar PV General Information. Website: https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/online-resource-center/2022-0. Accessed June 20, 2024.

Therefore, consistent with the analysis set forth in the Draft EIR, the proposed project would be consistent with the CAP policy which encourages the installation of solar PV systems. The Draft EIR properly determined that the proposed project would result in a less than significant impact after implementation of identified measures, including MM AIR-2d, MM GHG-2a, and MM GHG-2b. The commenter offers no evidnece or substantation of this assertion, which has been noted for the record and revisions to the Draft EIR are not necessary.

Comment AFTE-12
The commenter notes that MM GHG-2b would limit warehouse usage to dry storage but is unenforceable because it does not commit the City to the dry storage usage because it contains provisions that must be complied with if the warehouse is used for cold storage.

Response to AFTE-12
The commenter does not accurately reflect the contents of MM GHG-2b. The Draft EIR's GHG analysis considered the impacts associated with emissions that would result if TRUs were involved as a result of any portion of the warehouses being used for cold storage. To reduce impacts in this regard, as noted in both the comment and the Draft EIR, MM GHG-2b contains provisions that must be complied with if any portion of warehouse(s) are used for cold storage. Specifically, MM GHG-2b would ensure that in the event there would be cold storage uses such that TRUs would be entering the project site, then all such TRUs would need to be plug-in capable. The intent of the mitigation measure is to limit the GHG emissions that would be produced if any portion of the project is used for cold storage. By requiring that the foregoing mandatory be incorporated in every lease, thereby making it contractually binding, this measure's enforceability can be appropriately assured. This comment has been noted for the record. and no revisions to mitigation measures are warranted.

Comment AFTE-13
The commenter notes that MM AIR-2d would incorporate electric vehicle charging infrastructure for 20 percent of the project's parking spaces. The commenter also notes that this represents the minimum requirement of the CBC, and then makes a general assertion that this amount would not be sufficient to mitigate the project's potentially significant impact from vehicle GHG emissions.

Response to *AFTE-13*
To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA. The commenter is not clear nor offers evidence as to the basis for the assertion that compliance with applicable mandates under State law, which are some of the most stringent in the nation, would not be sufficient to mitigate the project's potential impacts associated with vehicle GHG emissions. The Draft EIR contains a detailed analysis that quantifies construction- and operational-related GHG emissions, including those resulting from mobile sources. As noted in the Draft EIR, MM AIR-2 requires each development within the proposed project incorporate infrastructure for EV charging stations into a minimum of 20 percent of all vehicle parking spaces (including parking for trucks). In so doing, this would facilitate achievement of the State's GHG emission reduction goals by incorporating substantial opportunities for EV infrastructure to be available to serve the vehicles utilized during project operations. Furthermore, beyond what is required by the CBC, MM AIR-2d specifies that the buildings' electrical room shall be sufficiently sized to hold additional panels that may be needed to supply power for the future installation of EV truck charging stations on the project site.

The Draft EIR appropriately analyzed the project's GHG impacts and it was found, based on substantial evidence in the record, that impacts would be reduced to less than significant levels with mitigation incorporated. Therefore, there is no legal nexus to implement additional mitigation measures and no requirement under CEQA to do so. The comment has been noted for the record, and revisions to the Draft EIR or additional mitigation measure are not warranted.

See also Responses to AFTE-4 and AFTE-5.

Comment AFTE-14
The commenter makes the general assertion that there is no evidence that the mitigation measures identified in the GHG section of the Draft EIR would mitigate the project's impact to a less than significant extent, let alone the fair share of the project's significant GHG impact.

Response to *AFTE-14*
The comment is general in nature and does not raise any specific project-related environmental issues under CEQA.

See Responses to AFTE-2, AFTE-3, AFTE-4, AFTE-5, AFTE-9, AFTE-10, AFTE-11, and AFTE-12. Contrary to the comment's assertions, the Draft EIR and the responses to comments set forth in the Final EIR, constitute substantial evidence in the record that the project's impacts would be reduced to less than significant levels with incorporation of the identified mitigation. The scope of the measures that would be imposed on the project are sufficient under the law to mitigate the project's impacts as required under CEQA. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment AFTE-15
The commenter reiterates the prior assertion that the determination of less than significant GHG impact after mitigation violates CEQA because the Lead Agency is required to mitigate significant cumulative impacts to the fair share extent when it finds a potentially significant impact, not just to the point of "less than significant." The comment also restates that the proposed mitigation measures would not be capable of reducing the project's GHG impact to a less than significant level because it would still conflict with the Scoping Plans and the Visalia CAP. The commenter also requests to be added to the public interest list for the proposed project.

Response to AFTE-15
The comment is general in nature and does not raise any specific project-related environmental issues under CEQA.

See Responses to AFTE-4, AFTE-5, AFTE-10, AFTE-11, and AFTE-14. The Draft EIR describes its analysis, which determined that the proposed project would have less than significant GHG impacts with the incorporation of mitigation. The City is not permitted under CEQA to impose mitigation measures or require applicants to incorporate project design features for impacts that have been determined to be less than significant. The commenter is added to the public interest list for the proposed project. The comment has been noted for the record and revisions to the Draft EIR and new mitigation measures are not necessary.

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SUBJECT: Comments on Shirk and Riggin Industrial Park Project EIR (SCH NO. 2022080658)

Dear Mr. Smith,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed Shirk and Riggin Industrial Park Project. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

1.0 Summary
The Project site is approximately 284 acres and currently consists of an actively managed almond orchard with an onsite pump house and small structures supportive of the orchard operations. The proposed project would discontinue the existing agricultural uses, demolish remaining on-site 1
structures that serve agricultural uses, and develop a mixed-use industrial park totaling approximately 3,720,149 square feet of light industrial, flex industrial, and commercial uses along with car/trailer parking areas and related on- and off-site improvements. The industrial park would involve both flex industrial and light industrial uses. Flex industrial uses would consist of small incubator space available for small manufacturing, storage, limited warehouse space, while the light industrial uses would consist of warehouse, distribution, storage, and light manufacturing. The project site proposes construction of eight light industrial buildings (3,474,650 total sf), six flex industrial buildings (84,480 total sf), Self-Storage/Recreation Vehicle (RV) Buildings (144,800 total sf), Convenience Store and Gas Station (6,922 sf), two 2,368 sf Drive-through Restaurants (4,736 total sf), and a Car Wash (4,560 sf). The project site is located within the

boundaries of Tulare County. The proposed project would need to be annexed into the city limits, and upon annexation, would be served by the City of Visalia for purposes of water and wastewater.

The proposed project would require the certification of the EIR and the following discretionary approvals from the City:

1. Approval of a Development Agreement
2. Approval of Resolution Initiating Annexation Proceedings
3. Approval of the Site Plan
4. Approval of Tentative Parcel Map
5. Conditional Use Permit for the conditionally permitted uses proposed (convenience store, drive-through restaurants), some of the proposed lot sizes in the light industrial zoning, and lots without public street frontage.

1 CONT

1.1 Project Piecemealing

The EIR does not accurately or adequately describe the project, meaning "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (CEQA § 15378). The project proposed by Shirk & Riggin Industrial Park is a piecemealed portion of a larger overall project to be developed within the larger Seefried Logistics Center in the City of Visalia. Other piecemealed projects include at minimum SPR21071[1] (construction of a 1,044,950 sf warehouse/distribution center building at the southwest corner of Plaza and Ferguson - Ace Hardware), and SPR22041[2] (construction of a 535,540 sf warehouse building at the southwest corner of Goshen and American, immediately south of Ace Hardware). Cumulatively, the three piecemealed applications construct a total of 5,300,639 sf of building floor area. 2

A project EIR must be prepared that accurately represents the whole of the action without piecemealing the project into separate, smaller development projects to present unduly low environmental impacts. CEQA Section 15161 describes project EIRs as examining "the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall

1 https://cd.visalia.city/CitizenAccess/Cap/CapDetail.aspx?Module=Engineering&TabName=Engineering&capID1=ENG21&capID2=00000&capID3=00278&agencyCode=VISALIA

2 https://cd.visalia.city/CitizenAccess/Cap/CapDetail.aspx?Module=Engineering&TabName=Engineering&capID1=ENG22&capID2=00000&capID3=00142&agencyCode=VISALIA

examine all phases of the project including planning, construction, and operation." The specific development project is the construction and operation of all Seefried buildings.

Additionally, CEQA Section 15146 requires that the degree of specificity in an EIR "will correspond to the degree of specificity involved in the underlying activity which is described in the EIR. (a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy." Because there are multiple proposed buildings as part of a single project, the project EIR must be more detailed in the specific effects of the project. A project EIR must be prepared which accurately represents the whole of the action without piecemealing the project into separate, smaller development projects, development areas, or development phases to present unduly low environmental impacts. 2 CONT

2.0 Project Description

The EIR does not include a floor plan, detailed site plan, detailed building elevations for each proposed building, or a conceptual grading plan. The basic components of a Planning Application include a detailed site plan, floor plan, conceptual grading plan, written narrative, and detailed elevations. Only a representative elevation for one each of the warehousing and flex industrial buildings is provided; there are no elevations for the Self-Storage/Recreation Vehicle (RV) Buildings, Convenience Store and Gas Station, two 2,368 sf Drive-through Restaurants, or Car Wash. Additionally, the site plan provided in Exhibit 2-8 has been edited to remove pertinent information from public view. For example, it does not provide any detailed information such a, floor area ratio, earthwork quantity notes, or maximum building height. Providing the earthwork quantity notes via a complete conceptual grading plan is vital as the EIR states that, "the proposed project includes approximately 130,000 cubic yards of material to be cut, approximately 260,000 cubic yards of fill material, and a net import of approximately 130,000 cubic yards of new material," and there is no method for the public or decision makers to verify this statement. Verification of the earthwork quantities is vital as it directly informs the quantity of any necessary truck hauling trips due to soil import/export during the grading phase of construction, thereby impacts mobile source emissions. A revised EIR must be prepared to include wholly accurate and unedited detailed project site plan, floor plan, grading plan, elevations, and project narrative for public review. 3

Additionally, the Project Description states that a necessary action to implement the proposed project is approval of a Development Agreement. However, the EIR has not included the Development Agreement for review by the public and decision makers. This does not comply 4 with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the Development Agreement contributes directly to analysis of the problem at hand and is a component of the proposed project. A revised EIR must be prepared to include the Development Agreement for review, analysis, and comment by the public and decision makers. 4 CONT

The Project Description and EIR are insufficient in adequately describing the proposed project. The Project Description states that a necessary action to implement the proposed project is approval of a "Conditional Use Permit for the conditionally permitted uses proposed (convenience store, drive-through restaurants), some of the proposed lot sizes in the light industrial zoning, and lots without public street frontage." However, there is no specific information given in the EIR regarding which lots are affected, the deviations in lot sizes from the requirements, and which lots do not have public street frontage. This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the complete and specific details of the Conditional Use Permit requests contribute directly to analysis of the problem at hand and is a component of the proposed project. A revised EIR must be prepared to include the complete and specific details of the Conditional Use Permit requests for review, analysis, and comment by the public and decision makers. 5

3.0 Environmental Impact Analysis

It must be noted that Table 3-1: Cumulative Projects excludes YS Industrial Park Phase 3 (SPR22130[3]), which is immediately adjacent to the south of the project site and currently under review. The EIR must be revised to include this project for cumulative analysis in order to provide an accurate environmental analysis and an adequate informational document. 6

3.3 - Air Quality, 3.6 - Energy, and 3.8 - Greenhouse Gas Emissions

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.0[4], CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project's census tract (6107001003) is ranked in the 99th percentile for overall pollution burden, meaning it is among the most polluted census tracks in the state. The 7

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[3] https://cd.visalia.city/CitizenAccess/Cap/CapDetail.aspx?Module=Engineering&TabName=Engineering&capID1=ENG22&capID2=00000&capID3=00585&agencyCode=VISALIA&IsToShowInspection=

[4] CalEnviroScreen 4.0 https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

surrounding community bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicators measured by CalEnviroScreen. For example, the project census tract ranks in the 91st percentile for ozone burden, the 98th percentile for particulate matter (PM) 2.5 burden, and the 55th percentile for diesel PM. All of these environmental factors are attributed to heavy truck activity in the area. Ozone can cause lung irritation, inflammation, and worsening of existing chronic health conditions, even at low levels of exposure[5]. The very small particles of diesel PM can reach deep into the lung, where they can contribute to a range of health problems. These include irritation to the eyes, throat and nose, heart and lung disease, and lung cancer[6].

The census tract also ranks in the 78th percentile for contaminated drinking water. Poor communities and people in rural areas are exposed to contaminants in their drinking water more often than people in other parts of the state[7]. The census tract also ranks in the 85th percentile for groundwater threats. People who live near contaminated groundwater may be exposed to chemicals moving from the soil into the air inside their homes[8]. 7 CONT

The census tract bears more impacts from cleanup sites than 95% of the state. Chemicals in the buildings, soil, or water at cleanup sites can move into nearby communities through the air or movement of water[9]. The census tract also ranks in the 99th percentile for toxic releases. People living near facilities that emit toxic releases may breathe contaminated air regularly or if contaminants are released during an accident[10].

The census tract also ranks in the 72nd percentile for solid waste facility impacts and 87th percentile for hazardous waste facility impacts. Solid waste facilities can expose people to hazardous chemicals, release toxic gases into the air (even after these facilites are closed), and chemicals can leach into soil around the facility and pose a health risk to nearby populations[11]. Hazardous waste generators and facilities contribute to the contamination of air, water and soil near waste generators and facilities can harm the environment as well as people[12].

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[5] OEHHA Ozone Burden https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone
[6] OEHHA Diesel Particulate Matter https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulate-matter
[7] OEHHA Drinking Water https://oehha.ca.gov/calenviroscreen/drinking-water
[8] OEHHA Groundwater Threats https://oehha.ca.gov/calenviroscreen/indicator/groundwater-threats
[9] OEHHA Cleanup Sites https://oehha.ca.gov/calenviroscreen/indicator/cleanup-sites
[10] OEHHA Toxic Releases https://oehha.ca.gov/calenviroscreen/indicator/toxic-releases-facilities
[11] OEHHA Solid Waste Facilities https://oehha.ca.gov/calenviroscreen/indicator/solid-waste-sites-and-facilities
[12] OEHHA Hazardous Waste Generators and Facilities https://oehha.ca.gov/calenviroscreen/indicator/hazardous-waste-generators-and-facilities

Further, the census tract is a diverse community including 50% Hispanic and 8% Asian-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of poverty, meaning 39% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care[13]. Poor communities are often located in areas with high levels of pollution[14]. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution[15]. Living in poverty is also an indication that residents may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 70th percentile for incidence of cardiovascular disease and 52nd percentile for incidence of asthma. The community also has a high rate of linguistic isolation, meaning 40% of the census tract speaks little to no English and faces further inequities as a result. 7 CONT

Additionally, the proposed project's census tract (6107001003) and the census tracts adjacent to the project site (6107000900 (north/west) and 6107001004 (east)) are identified as SB 535 Disadvantaged Communities[16]. This indicates that cumulative impacts of development and environmental impacts in the area are disproportionately impacting these communities. The negative environmental, health, and quality of life impacts resulting from an over-saturation of the warehousing and logistics industry in the area have become distinctly inequitable. The severity of significant and unavoidable impacts particularly on these Disadvantaged Communities must be included for analysis as part of a revised EIR. Each section of the EIR must include the specific analysis of each environmental impact on the Disadvantaged Communities, including cumulative analysis and irreversible environmental effects.

The State of California lists three approved compliance modeling softwares[17] for non-residential buildings: CBECC-Com, EnergyPro, and IES VE. CalEEMod is not listed as an approved software. The CalEEMod modeling does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project s significant Energy impacts and fuel consumption to the public and decision makers. Since the EIR did not accurately or adequately model the energy impacts in compliance with Title 24, it cannot conclude the project will generate less than significant impacts and a finding of significance must be made. A revised EIR with modeling using one of the approved software types must be prepared and circulated for public review in 8

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13 OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty
14 Ibid.
15 Ibid.
16 OEHHA SB 535 Census Tracts https://oehha.ca.gov/calenviroscreen/sb535
17 California Energy Commission 2022 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

order to adequately analyze the project s significant environmental impacts. This is vital as the EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not an approved software. 8 CONT

3.11 Land Use and Planning

The EIR does not discuss or analyze the project's compliance with the General Plan's Land Use Buildout Scenario. Table 1-4: Non-Residential Floor Area within the General Plan[18] projected new development of 9,690,000 s.f. of building area in the industrial land use designations between 2010 and 2030. Table 1-5: Employment by Sector projects the associated creation of 9,670 jobs in the industrial sector. The EIR has not provided evidence that the growth generated by the proposed project was anticipated by the General Plan, RTP/SCS, or AQMP. The whole of the action proposed by the project (inclusive of SPR21071 and SPR22041) proposes the development of 5,300,639 square feet of building area, which is 54% of the City's industrial buildout. A revised EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since General Plan adoption and projects "in the pipeline" to determine if the project will exceed the General Plan buildout scenarios. For example, other development such as recent YS Industries projects (SPR19213, SPR21150 and SPR22130) proposes construction of 2,507,328 sf of building area on industrial lands. Combined with the proposed project (all Seefried buildings) will cumulatively generate 7,807,967 square feet of building area on industrial designated lands. This represents 80.5% of the City's industrial buildout through 2030 accounted for by only two recent developers. These totals increase when other industrial development approved, submitted, or "in the pipeline" since General Plan adoption are added to the total. A revised EIR must be prepared to include a cumulative analysis on this topic. 9

Further, Table 3.11-2: General Plan Consistency Analysis provides an erroneous and misleading analysis of the proposed project and its significant and unavoidable impacts, and excludes several goals and policies from the General Plan for analysis. The EIR does not provide a consistency analysis with all land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The project has significant potential to conflict with many of these items, including but not limited to the following from the General Plan: 10

1. T-P-9 Maintain acceptable levels of service for all modes and facilities, as established in Tables 4-1, Intersection Level of Service Definitions and 4-2, Level of Service Criteria for Roadway Segments.

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[18] https://www.visalia.city/depts/community_development/planning/gp.asp

2. T-P-15 Require additional right-of-way and improvements of Circulation Element facilities where needed for turning movements or to provide access to adjacent properties wherever 11
access is not feasible from the lower classification street system.
3. T-P-61 Encourage high-security off-street parking areas for tractor-trailer rigs in industrial 12
areas.
4. AQ-O-3 Reduce emissions of greenhouse gases that contribute to global climate change in 13
accord with federal and State law.

Additionally, several goals and policies analyzed within Table 3.11-2 provide erroneous and misleading statements regarding the proposed project. For example, the EIR concludes the project is consistent with "Objective AQ-O-2: Strive to improve air quality by implementing emissions reduction efforts targeting mobile sources, stationary sources and construction-related sources," because "the proposed project would include Mitigation Measure (MM) AIR-2a through MM 14
AIR-2h to reduce emissions to the extent feasible." The EIR excludes from analysis that the project will have a significant and unavoidable direct project-level and cumulative impact to air quality after mitigation is implemented. The EIR must be revised to include a finding of significance due to the direct inconsistency with the General Plan.

The EIR also concludes the project is consistent with "T-P-24: Require that proposed developments make necessary off-site improvements if the location and traffic generation of a proposed development will result in congestion on major streets or failure to meet LOS D during peak periods or if it creates safety hazards," because "As discussed in Section 3.14, Transportation, the proposed project would not result in congestion on major streets or failure to meet LOS D during peak-hours following recommendations established by the project-specific Transportation Impact Study. The proposed project would construct off-site street and intersection improvements to improve existing safety hazards and reduce congestion." However, the Transportation analysis has not provided a project-specific safety hazard analysis. The EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., 15
sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access. There are no exhibits depicting the available truck turning radius at the intersection of the project driveways and adjacent streets. There are also no exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site.

The Transportation analysis within the EIR states that, "A sight distance analysis for each project driveway was conducted to determine whether outbound vehicles would have adequate sight distance to observe conflicting traffic along the intersecting public roadways. Intersection sight distance for the project driveways were evaluated following methodology outlined by the City of

Visalia Design and Improvement Standard SD-3, which is based on guidance outlined by the American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highway and Street, 7th Edition. The proposed project would be required to satisfy the required sight lines and clear zone requirements for all project driveways, to ensure roadway hazards are minimized." However, the EIR has not included the sight distance analysis for review by the public and decision makers. This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the sight distance analysis contributes directly to analysis of the problem at hand in reviewing the project's potentially significant impacts related to threshold Impact TRANS-3, and therefore it does not comply with General Plan Policy T-P-24. A revised EIR must be prepared to include the sight distance analysis for review, analysis, and comment by the public and decision makers. 15 CONT

Further, Appendix I includes Table 23: Summary of Access Recommendations, which provides recommendations to the site plan and offsite street areas to related project traffic queuing and safety. None of these recommendations are included as mitigation measures in the EIR, indicating that they are not required to be completed by the proposed project and outstanding project traffic queuing and safety exist. The EIR must be revised to include a finding of significance as it has not provided meaningful evidence to support the conclusion that the project will result in less than significant impacts under threshold Impact TRANS-3, and therefore has not complied with General Plan Policy T-P-24.

Further, the EIR does not discuss that the site is identified in the City's Draft Housing Element[19]. Table 41: Vacant Parcels Available for Emergency Shelters list the project site as a vacant site available to accommodate an emergency shelter and contributes to statutorily required capacity to accommodate the City's homeless individuals. A revised EIR must be prepared to include this information for analysis. The project also cannot be approved until and unless the City's Housing Element is revised to remove the project site from the sites inventory for statutorily required capacity to accommodate the City's homeless individuals. 16

Further, the EIR does not provide a consistency analysis with TCAG's 2018 RTP/SCS. Due to errors in modeling, modeling without supporting evidence (as noted throughout this comment letter and attachments), and the EIR's determination that the project will have significant and unavoidable cumulatively considerable impacts to Air Quality, the proposed project is directly inconsistent with Goal 10 to improve air quality through congestion management, coordination of land use, housing and transportation system, provision of alternative modes of transportation and 17

[19] https://hcdpowerbi.blob.core.windows.net/housing-elements/visalia-6th-adopted-122823.pdf

provision of incentives that reduce vehicle miles traveled. The EIR relies upon the flawed reasoning that since the project is required to implement mitigation measures that reduce air quality emissions to the maximum extent feasible, this will "thereby improv(e) air quality, consistent with Goal 10." This is erroneous and misleading to the public and decision makers as the project will have a significant and unavoidable direct project-level and cumulative impact to air quality after mitigation is implemented. The EIR must be revised to include a finding of significance due to the direct inconsistency with TCAG s 2018 RTP/SCS. 17 CONT

Table 3.11-1: LAFCo Consistency Analysis (Government Code § 56668) also provides an erroneous and misleading constituency analysis with statutory requirements for annexation requests. For example, Government Code Section 56668(g) requires analysis of the project's consistency with the RTP and City/County General Plans. The EIR concludes that the proposed project is consistent with this section in stating that, "As discussed throughout this Land Use section, the proposed project would be consistent with all transportation policies that are relevant to the proposed project." However, as shown above, the proposed project is not consistent with the RTP nor the General Plan. The EIR must be revised to include a finding of significance due to the direct inconsistency with LAFCo statutory requirements regarding annexation requests. 18

3.14 Transportation

The EIR states that the, "The proposed project is expected to increase VMT per employee within the TAZ it is located by approximately 0.15 mile, or 1.54 percent of the total miles traveled. Therefore, the proposed project would result in a significant VMT impact." The EIR provides Mitigation Measures TRANS-10a and TRANS-10b to justify mitigating impacts to less than significant levels:

"MM TRANS-10a: Prior to the issuance of building permits, the site plan shall include the location of up to six secured bicycle storage lockers near each of the buildings entrances and the future transit stop. Up to 10 potential locations shall be included, for a total of up to 60 lockers throughout the site. Lockers shall be provided for approximately 1.5 percent of the 4,178 site s daily employees with flexibility to add future lockers based on demand. 19

MM TRANS-10b: Prior to final occupancy of any portion of Phase 1, the developer shall construct a bike path along Modoc Ditch, between Kelsey Street and Shirk Street (approximately 1-mile). The existing Class I bike path along Modoc ditch runs to the east of the proposed project, between Dinuba Boulevard and the St. John s River Trail. The Carlton Acres Specific Plan (CASP) project also proposed to construct a portion of the Class I path within the site. Therefore, the bike path shall connect to a new path proposed within the CASP site and future segments to the east and west. This mitigation is subject to contractability and approval by Cal Water."

Notably, the EIR has not provided meaningful evidence to support the conclusion that Mitigation Measures TRANS-10a and TRANS-10b will reduce VMT to below the significance threshold. Mitigation Measures TRANS-10a and TRANS-10b are unenforceable mitigation in violation of CEQA § 21081.6 (b). The EIR has not provided an accurate, quantified calculation of the reduced VMT as a result of Mitigation Measures TRANS-10a and TRANS-10b. The EIR refers to the City's VMT Guidelines[20], which state that per "CAPCOA SDT- [Bike Parking in Non-Residential projects has minimal impacts as a standalone strategy and should be grouped with the LUT-9 (Improve Design of Development) strategy to encourage bicycling by providing strengthened street network characteristics and bicycle facilities]," and also that, "The benefits of Land Dedication for Bike Trails have not been quantified and should be grouped with the LUT-9 (Improve Design of Development) strategy to strengthen street network characteristics and improve connectivity to off-site bicycle networks." Appendix M within Appendix I indicates that the consultant used a proprietary software to calculate the VMT reductions of the proposed mitigation measures. The data inputs utilized for modeling are not provided to the public and decision makers and the outputs sheets from the software are blurry and illegible, which does not comply with CEQA's requirements for meaningful disclosure and adequate informational documents (CEQA § 15121 and PRC 21003(b)). CAPCOA also notes that the proposed VMT mitigations do not stand alone to reduce VMT and must be paired with other strategies, which has not been proposed as part of the project. 19 CONT

Further, it is not possible for the City to ensure that Mitigation Measures TRANS-10a and TRANS-10b will result in reduced VMT by project employees and be implemented continuously, at all times, throughout the life of the project and maintain a VMT reduction to less than significant levels at all times. Notably, MM TRANS-10b states that, "This mitigation is subject to contractability and approval by Cal Water," indicating that it is further infeasible as mitigation and will not achieve any reduction of VMT. The efficacy of the proposed mitigation measures and reduction of VMT impacts below the applicable thresholds cannot be assured, and the project's VMT impact is therefore considered significant and unavoidable. A revised EIR must be prepared to include a finding of significance because there is no possible assurance of the percentage of project employees that would utilize non-automobile or non-single occupant vehicle travel associated with the mitigation measures and mitigation of the project's VMT impact to less than significant is not feasible. 20

Further, the EIR has underreported the quantity VMT generated by the proposed project operations. The operational nature of industrial/warehouse uses involves high rates of truck/trailer/delivery van VMT due to traveling from large import hubs to regional distribution centers to smaller industrial parks and then to their final delivery destinations. Once employees 21

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[20] https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=47045

arrive at work at the proposed project, they will conduct their jobs by driving delivery vans across the region as part of the daily operations as a warehouse, which will drastically increase project-generated VMT. The project's truck/trailer and delivery van activity is unable to utilize public transit or active transportation and it is misleading to the public and decision makers to exclude this activity from VMT analysis. The project's actual VMT generated by all aspects of project operation is not consistent with the significance threshold and legislative intent of SB 743 to reduce greenhouse gas emissions by reducing VMT. A revised EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity. 21

The EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access. There are no exhibits depicting the available truck turning radius at the intersection of the project driveways and adjacent streets. There are also no exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site. The EIR states that, "A sight distance analysis for each project driveway was conducted to determine whether outbound vehicles would have adequate sight distance to observe conflicting traffic along the intersecting public roadways. Intersection sight distance for the project driveways were evaluated following methodology outlined by the City of Visalia Design and Improvement Standard SD-3, which is based on guidance outlined by the American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highway and Street, 7th Edition. The proposed project would be required to satisfy the required sight lines and clear zone requirements for all project driveways, to ensure roadway hazards are minimized." However, the EIR has not included the sight distance analysis for review by the public and decision makers. This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the sight distance analysis contributes directly to analysis of the problem at hand in reviewing the project's potentially significant impacts related to threshold Impact TRANS-3. A revised EIR must be prepared to include the sight distance analysis for review, analysis, and comment by the public and decision makers. 22

Further, Appendix I includes Table 23: Summary of Access Recommendations, which provides recommendations to the site plan and offsite street areas to related project traffic queuing and safety. None of these recommendations are included as mitigation measures in the EIR, indicating that they are not required to be completed by the proposed project and outstanding project traffic queuing and safety exist. The EIR must be revised to include a finding of significance as it has not provided meaningful evidence to support the conclusion that the project will result in less than significant impacts under threshold Impact TRANS-3. 23

4.2.2 Environmental Effects Found Not To Be Significant: Population and Housing

The EIR does not address the proposed project's annexation requirements in this analysis. The EIR states that, "In terms of the removal of any direct barriers to growth, this would not occur due to the proposed project because it does not propose removing any existing obstacles that currently prevent growth within the City." The annexation of the proposed project site into the City's boundaries will remove an existing obstacle that currently prevents growth within the City, and contribute towards the development thresholds that unlock development in the Tier II and Tier III Urban Development Boundary of the General Plan. The EIR must be revised to include a finding of significance due to this impact. 24

The EIR also states that, "The proposed project is anticipated to generate a total of approximately 4,100 new employees at full buildout," which was calculated based on ITE vehicle trip rates for the proposed project. This does not represent the best available data as local data is available in the City's General Plan. The City's General Plan[21] provides employment generation rates, including the rate of 1 employee for every 750 square feet of light industrial building area.

Applying this ratio results in the following calculation:

Proposed Project: 3,720,149 sf / 750 sf = 4,961 employees

Seefried Piecemealed Projects: 5,300,639 sf / 750 = 7,068 employees

The EIR utilizes uncertain and misleading language which does not provide any meaningful analysis of the project s population and employment generation. In order to comply with CEQA s requirements for meaningful disclosure, a revised EIR must be prepared to provide an accurate estimate of employees generated by all uses of the proposed project. It must also provide demographic and geographic information on the location of qualified workers to fill these positions. A construction worker employment analysis must also be included to adequately and accurately analyze all potentially significant environmental impacts. It must also provide a job buildout analysis of the City's General Plan. Table 1-5: Employment by Sector within the General Plan indicates that the Industrial land use designation will allow for the creation of 9,670 new jobs from 2010-2030. The whole of the action proposed by the project (inclusive of SPR21071 and SPR22041) will create 2,071 new jobs, which is 21% of the City's industrial job buildout accounted for by a single project. Piecemealed Seefried projects combined with the proposed project cumulatively generate 7,068 employees, which is 73% of the City's industrial land use job buildout. A revised EIR must be prepared to include this analysis, and also provide a cumulative 25

[21] https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30474

analysis discussion of projects approved since General Plan adoption and projects "in the pipeline" to determine if the project will exceed the General Plan buildout scenarios. For example, other recent industrial projects such as recent YS Industries projects (SPR19213, SPR21150 and SPR22130; 2,507,328 sf of building area and 3,344 employees) combined with the proposed project will cumulatively generate 10,412 employees on land with industrial designations. This represents 107% of the City's industrial job buildout through 2030 accounted for by only a few recent projects. These totals increase when other industrial development approved, submitted, or "in the pipeline" since General Plan adoption are added to the total.

The EIR also has not provided evidence that the local unemployed population is qualified for or interested in work in the industrial sector. The EIR states that, "*Given the nature* of the proposed project, it would *likely* be staffed *primarily* by *local* employees once operational." However, there is no specific information given about the "nature" of the proposed project in this context. The EIR also uses uncertain language in stating that the project will "primarily" and "likely" have a staff of "local" employees, and the geographic boundaries of the "local" area are undefined. The EIR relies upon Census data to improperly conclude that because 22.5% of the City's *active* workforce is employed within the "wholesale trade, manufacturing, retail trade, and transportation and warehousing" sectors, this translates to 22.5% of the *unemployed* workforce being available for work in these sectors. The EIR has not provided any information about the unemployed workforce and their qualifications/interest in work in the industrial sector. Even if the EIR's theory that "1,352" workers within the City was viable, it would only account for 27% of the proposed project's employees and 19% of the piecemealed Seefried project employees, meaning that the majority of employees will commute from outside the City to the project. The EIR states here that, "U.S. Census Bureau 2011–2015 5-Year American Community Survey (ACS) Commuting Flows, there are a total of 140,091 workers who both live in Tulare County and commute to work within the County. It is reasonable to *assume* that workers who currently reside in the Tulare County *near* the City of Visalia would continue to commute to work and thus also would be available to serve as employees for the proposed project." The EIR provides no information about the Tulare County workers and their interest/qualifications for work in the industrial sector, therefore this group cannot be relied upon to provide adequate staffing. Additionally, the EIR "reasonably assumes" that the theoretical Tulare County workers also live "near" the City of Visalia, and has not provided any meaningful evidence to support this claim, either. Relying on the entire labor force within the greater east bay region (Tulare, Kings, and Fresno Counties) to fill the project's construction and operational jobs will increase VMT and emissions during all phases of construction and operations and a revised EIR must be prepared to account for longer worker trip distances. A revised EIR must also include a cumulative analysis on this topic and a finding of significance due to the significant and unavoidable impacts discussed above.

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5.2 Growth-inducing Impacts and 5.3 Significant Irreversible Environmental Changes

The EIR does not address the proposed project's annexation requirements in this analysis. The EIR states that, "In terms of the removal of any direct barriers to growth, this would not occur due to the proposed project because it does not propose removing any existing obstacles that currently prevent growth within the City." The annexation of the proposed project site into the City's boundaries will remove an existing obstacle that currently prevents growth within the City, and contribute towards the development thresholds that unlock development in the Tier II and Tier III Urban Development Boundary of the General Plan. The EIR must be revised to include a finding of significance due to this impact.

The EIR provides the same reasoning as provided in the Population and Housing analysis to conclude that the project will not result in significant growth inducing impacts. The EIR states that, "The proposed project is anticipated to generate a total of approximately 4,100 new employees at full buildout," which was calculated based on ITE vehicle trip rates for the proposed project. This does not represent the best available data as local data is available in the City's General Plan. The City's General Plan[22] provides employment generation rates, including the rate of 1 employee for every 750 square feet of light industrial building area. 26

Applying this ratio results in the following calculation:

Proposed Project: 3,720,149 sf / 750 sf = 4,961 employees

Seefried Piecemealed Projects: 5,300,639 sf / 750 = 7,068 employees

The EIR utilizes uncertain and misleading language which does not provide any meaningful analysis of the project s population and employment generation. In order to comply with CEQA s requirements for meaningful disclosure, a revised EIR must be prepared to provide an accurate estimate of employees generated by all uses of the proposed project. It must also provide demographic and geographic information on the location of qualified workers to fill these positions. A construction worker employment analysis must also be included to adequately and accurately analyze all potentially significant environmental impacts. It must also provide a job buildout analysis of the City's General Plan. Table 1-5: Employment by Sector within the General Plan indicates that the Industrial land use designation will allow for the creation of 9,670 new jobs from 2010-2030. The whole of the action proposed by the project (inclusive of SPR21071 and SPR22041) will create 2,071 new jobs, which is 21% of the City's industrial job buildout accounted for by a single project. Piecemealed Seefried projects combined with the proposed

[22] https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30474

project cumulatively generate 7,068 employees, which is 73% of the City's industrial land use job buildout. A revised EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since General Plan adoption and projects "in the pipeline" to determine if the project will exceed the General Plan buildout scenarios. For example, other recent industrial projects such as recent YS Industries projects (SPR19213, SPR21150 and SPR22130; 2,507,328 sf of building area and 3,344 employees) combined with the proposed project will cumulatively generate 10,412 employees on land with industrial designations. This represents 107% of the City's industrial job buildout through 2030 accounted for by only a few recent projects. These totals increase when other industrial development approved, submitted, or "in the pipeline" since General Plan adoption are added to the total.

The EIR also has not provided evidence that the local unemployed population is qualified for or interested in work in the industrial sector. The EIR states that, "*Given the nature* of the proposed project, it would *likely* be staffed *primarily* by *local* employees once operational." However, there is no specific information given about the "nature" of the proposed project in this context. The EIR also uses uncertain language in stating that the project will "primarily" and "likely" have a staff of "local" employees, and the geographic boundaries of the "local" area are undefined. The EIR relies upon Census data to improperly conclude that because 22.5% of the City's *active* workforce is employed within the "wholesale trade, manufacturing, retail trade, and transportation and warehousing" sectors, this translates to 22.5% of the *unemployed* workforce being available for work in these sectors. The EIR has not provided any information about the unemployed workforce and their qualifications/interest in work in the industrial sector. Even if the EIR's theory that "1,352" workers within the City was viable, it would only account for 27% of the proposed project's employees and 19% of the piecemealed Seefried project employees, meaning that the majority of employees will commute from outside the City to the project. The EIR states here that, "U.S. Census Bureau 2011–2015 5-Year American Community Survey (ACS) Commuting Flows, there are a total of 140,091 workers who both live in Tulare County and commute to work within the County. It is reasonable to *assume* that workers who currently reside in the Tulare County *near* the City of Visalia would continue to commute to work and thus also would be available to serve as employees for the proposed project." The EIR provides no information about the Tulare County workers and their interest/qualifications for work in the industrial sector, therefore this group cannot be relied upon to provide adequate staffing. Additionally, the EIR "reasonably assumes" that the theoretical Tulare County workers also live "near" the City of Visalia, and has not provided any meaningful evidence to support this claim, either. Relying on the entire labor force within the greater east bay region (Tulare, Kings, and Fresno Counties) to fill the project's construction and operational jobs will increase VMT and emissions during all phases of construction and operations and a revised EIR must be prepared to account for longer worker trip

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distances. A revised EIR must also include a cumulative analysis on this topic and a finding of significance due to the significant and unavoidable impacts discussed above. 26 CONT

6.0 Alternatives

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6.) The alternatives chosen for analysis include the CEQA required "No Project" alternative and only two others - Reduced Footprint Alternative and Alternative Location Alternative. The EIR does not evaluate a reasonable range of alternatives as only two alternatives beyond the required No 27
Project alternative is analyzed. The EIR does not include an alternative that meets the project objectives and also eliminates all of the project's significant and unavoidable impacts. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This must include alternatives such as development of the site with a project that reduces all of the proposed project's significant and unavoidable impacts to less than significant levels.

Sincerely,

Gary Ho
Blum, Collins & Ho LLP

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Golden State Environmental Justice Alliance (GSEJA)

Comment GSEJA-1

The comment provides general background information regarding the commenter and offers a summary of the proposed project. The commenter also requests to be added to the public interest list for the proposed project.

Response to GSEJA-1

This comment is noted for the record. As it does not raise any project-specific environmental issues under CEQA or otherwise provide information specific to the proposed project or the environmental document, no further response is necessary. The commenter has been added to the public interest list for the proposed project pursuant to applicable procedures. No changes to the document have been made or are required.

Comment GSEJA-2

The commenter states that the Draft EIR does not describe the proposed project accurately or adequately, and purports that the proposed project is a piecemealed portion of a larger overall project to be developed within a larger industrial center in the project vicinity. The commenter notes two other industrial projects in the project vicinity (i.e., SPR21071 and SPR22041), which would total approximately 5,300,639 square feet of building floor area when combined with the proposed project. The commenter suggests that the proposed project should be analyzed with these two other projects, at a minimum, as a whole. It characterizes the "whole of the action" being "the construction and operation of all Seefried buildings." The commenter then purports to set forth various legal principles under CEQA addressing the proper definition of the "whole of the action" and the asserted "degree of specificity" of the required CEQA analysis to ensure that the "unduly low environmental impacts" are not presented.

Response to *GSEJA-2*

The comment is noted for the record. To the extent the comment does not provide concerns regarding project-specific environmental issues under CEQA, then no further response is required. This generalized comment does not provide substantial evidence regarding any significant impact that was not adequately addressed.

In terms of the specific comment regarding the definition of "project" for purposes of CEQA, the comment is mistaken as to the nature of the two non-related development applications it references, as well as the relevant legal principles under CEQA. The fact that the same or similar entities may be seeking entitlements for distinct developments from the same local jurisdiction does not mean that these separate, different, and independent developments must or should be treated as a single overall "project."

Pursuant to CEQA Guidelines Section 15378, the entire project being proposed for consideration for approval must be described to ensure the environmental impacts of the entire project are considered and disclosed. A lead agency may not split a single large project into smaller ones resulting in piecemeal environmental review that fails to consider the environmental consequences of the entire project.

Contrary to the commenter's assertion, the Draft EIR does not improperly artificially narrow the project description to evade environmental review. Instead, Chapter 2, Project Description, of the Draft EIR provides a detailed description of all project components that are the subject of the discretionary land use entitlements being sought by the applicant, including all phases thereof. The comment has provided no substantial evidence to demonstrate otherwise.

For purposes of CEQA. the distinct development proposals referenced in the comment are the result of entirely distinct application processes, are independently functional separate actions, and are neither a part of, nor a consequence of, the proposed project. Except for referencing the name of Seefried that is common to the proposed project and the other two non-related proposals, the commenter has provided no basis to claim the proposed project: (1) is in any way dependent on the other referenced proposal(s); (2) is the necessary first step toward a larger development; or (3) requires or presumes completion of one or both of the other referenced proposal(s). To the contrary, the proposed project has substantial independent utility from the other distinct proposal(s); for example, and among other things, the two proposals mentioned in the comment (SPR21071 [Seefried-Visalia] and SPR22041 [Visalia Plaza 39/Seefried]) are located at different sites within the City, separated by existing development and intervening topography from the proposed project. Additionally, the proposed project and two other proposals are independent in terms of utility and site planning and are able to move forward on independent tracks from the proposed project and from each other.

In terms of the comment regarding the "required specificity," Chapter 2, Project Description of the Draft EIR contains a detailed discussion of all project components during all phases, setting forth sufficient information to provide the public, interested organizations and the decision-makers with an adequate opportunity to make a decision that intelligently takes into account the project's environmental consequences. As provided for under CEQA Guidelines Section 15146, the degree of specificity in an EIR corresponds to the degree of specificity involved in the underlying activity that is described in the EIR, the level of required specificity is determined on the basis of the nature of the project and the rule of reason. Here, the Draft EIR describes the different types of proposed uses; the total maximum amount of square footage to be developed for each type of proposed use; the overall site plan including locations of each proposed use; the on-site vehicular circulation, access, and parking plan; building and related materials design; the on-site lighting, landscaping, and utilities; and off-site improvements and infrastructure necessary to serve the proposed project. The Draft EIR contains a sufficient detailed description of the proposed project as required by CEQA Guidelines Section 15124(c). Final design specifications are not required in the EIR where, as here, there is sufficient information to enable the public and the decision-makers to understand the environmental impacts of the proposed project. The Draft EIR is based on facts and analysis supported by reasonably available information, as well as informed estimates, where appropriate, particularly in light of the size and nature of the project.

The commenter does not raise a legitimate issue related to the adequacy of the Draft EIR; therefore, no further response is necessary and no change is warranted.

Comment GSEJA-3

The commenter states that the project description of the Draft EIR does not include a floor plan, detailed site plan, detailed building elevations, or a conceptual grading plan for the proposed project. The commenter further asserts that there is no plan depicting earthwork quantity notes or information regarding import/export of soils/materials. The commenter also notes that grading haul truck trips have the potential to add significant quantities of truck trips during project construction and therefore increases emissions. The commenter further states that the Draft EIR must be revised to include all application items for review, analysis, and comment by the public and decision-makers.

Response to *GSEJA-3*

The comment is noted for the record. The project description set forth in the Draft EIR fully complies with CEQA's requirements. For example, it is noted that, as demonstrated by *Citizens for a Sustainable Treasure Island v. City & County of San Francisco* (2014) 227 CA4th, 1053, a CEQA document's description of the project description should identify the project's main features and other information needed for an analysis of the proposed project's environmental impacts. The project description "should not supply extensive detail beyond that needed for evaluation and review of the environmental impact" (State CEQA Guidelines § 15124).

The proposed project is thoroughly described within the Draft EIR (as well as supporting documents in the administrative record), which provide the level of detail necessary for a robust evaluation and disclosure of the potential environmental impacts from the proposed project for review by the public, interested organizations and decision-makers.

As such, detailed plans such as grading plans, floor plans, or detailed architectural elevations of each specific building are not required to be included in the Draft EIR's project description and a general description of the proposed project and conceptual plans are allowed and appropriate here; the Draft EIR contains sufficient specificity as to all project components during all phases, setting forth substantial information to provide the public, interested organizations and the decision-makers with an adequate opportunity to make a decision that intelligently takes into account the project's environmental consequences.

The commenter does not provide substantial evidence regarding any significant environmental impact. The proposed project involves discretionary land use entitlements necessary to implement the project, including, among others, a site plan review, which further delineates such details as, among others, parking and truck movements consistent with the project description set forth in Chapter 2, Project Description of the Draft EIR. All components of the proposed project that are necessary to study under CEQA are fully described, considered, evaluated and disclosed therein.

The proposed project, as with most larger projects, would involve subsequent approvals. To the extent those subsequent approvals are discretionary in nature, then CEQA compliance would be required. For those subsequent approvals that are ministerial in nature, such as the review and approval of interior tenant improvements, this would be governed by the applicable provisions of the California Fire Code, the CBC, and other related construction codes. The EIR project description provides sufficient information to adequately analyze the environmental impacts of the proposed project.

The extent and nature of the grading and related drainage and any potential flooding items are sufficiently described and evaluated in Chapter 2, Project Description, Section 3.7, Geology, Soils, and Seismicity, Section 3.10, Hydrology and Water Quality, and referenced in all other chapters as appropriate. The Draft EIR is supported by facts and analysis and, where appropriate, informed estimates, based on available information and is sufficiently detailed for purposes of conducting environmental review. For instance, as detailed more fully therein, based on the assumptions related to the estimated amount of cut and fill, the Draft EIR properly considered the amount of construction-related truck trips that would occur as a result of the off-haul demands generated by the project, and disclosed all potential environmental impacts associated therewith. Specifically, these assumptions are based on CalEEMod default values for trip lengths and vehicle fleets as explained in Appendix B, Air Quality, Greenhouse Gas, and Energy Supporting Information, of the Draft EIR, for the proposed demolition of approximately 1,065 square feet of existing outbuildings and foundations and the approximately 130,000 cubic yards of fill being imported to the project site. The comment does not provide any basis for calling into question the Draft EIR's assumptions utilized. To the contrary, there is substantial evidence in the record to support these assumptions as described more fully above and in the Draft EIR and supporting technical materials.

As will be detailed in the adopted MMRP, feasible mitigation would be imposed that require specified actions before a grading or building permit is issued that ensures compliance with applicable mitigation before any grading or other ground disturbance or other construction-related activities occur. For example and among others, the Draft EIR has properly identified the following: MM AIR-2a through MM AIR-2g, MM BIO-1a through MM BIO-1f, MM BIO-3, MM CUL-1, MM CUL-2, MM GEO-1, MM GEO-2, MM GHG-2a through MM GHG-2c, MM HAZ-1, MM NOI-1, and MM TRANS-1 through MM TRANS-11. Note that the following mitigation measures were revised, as shown in Section 3, Errata, of this Final EIR: MM BIO-1d, MM BIO-3, and MM GHG-2a.

With respect to heavy-duty trucks, the delivery vans/trucks that would access the project site during operations are anticipated to be from third-party vendors. Because it is not anticipated that future tenants occupying the proposed project would own these vehicles, neither the future tenants nor the City would have control over the nature and type of vehicles accessing the project site and thus neither would have the ability to enforce any such obligation during the life of the proposed project. Rather, the emissions resulting from the vehicles accessing the project site would largely be influenced by the comprehensive body of laws and regulations (current and future) that would apply to vehicle manufacturers based on determinations made by the California Air Resource Board (ARB), which is the expert public agency charged to address these issues via a comprehensive regulatory framework applied Statewide based on robust data and evaluation with consideration of multiple complicated factors. For example, with compliance with ARB regulations such as Advanced Clean Fleet, it is assumed that over the lifetime of the project, heavy heavy-duty (HHD) truck fleets traveling to and from the project will include increasingly zero and near-zero technologies as the project moves to later years.

Given the volume of medium-duty vehicles that would be involved as part of the future tenants' business operations, practical limitations on the owner's ability to control and enforce such an obligation, along with the current substantial cost and concerns regarding widespread availability of electric vehicles and related charging infrastructure, the suggested mitigation is not feasible.

Moreover, the project applicants would be required to provide EV charging infrastructure throughout all parking areas as part of MM AIR-2d, which would improve charging infrastructure in the City and help facilitate the transition to EVs. Furthermore, MM AIR-2d requires the building's electrical room to be sufficiently sized to hold additional panels that may be needed to supply power for the future installation of EV truck charging stations on the project site. In addition, it would be speculative to attempt to quantify the amount of emission reduction that would occur from the suggested measure, and it also cannot be enforced in a way that would ensure a reduction to potential health impacts. Therefore, based on the foregoing reasons and as further documented in Section 3.3, Air Quality, and Section 3.8, Greenhouse Gas Emissions of the Draft EIR as well as this Final EIR, the suggested mitigation is not required under CEQA.

Regarding off-road equipment, MM AIR-2c requires all off-road equipment to utilize zero-emission technology, subject to the same being commercially available. Furthermore, on-site service equipment shall be designed to include electric outlets to support the use of all-electric or zero-emission on-site service equipment, subject to the same being commercially available. Therefore, this suggested mitigation measure is similar to recommended measures already identified in the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

As described further in the Draft EIR, Health Risk Assessments (HRAs) for both construction and operational were conducted based on a recognition that during construction and operation, the proposed project would result in emissions of several toxic air contaminants (TACs) that could potentially impact nearby sensitive receptors. The principal TAC emission analyzed in this assessment was diesel particulate matter (DPM) from operation of off-road equipment and diesel-powered delivery and worker vehicles during construction and operation.

For purposes of the operational HRA, air dispersion modeling was utilized to assess the proposed project's potential health risks using American Meteorological Society/United States Environmental Protection Agency (EPA) Regulatory Model (AERMOD) Version 22112, which is an air dispersion model accepted by the EPA and the District for preparing HRAs. Sources in the modeling included those from running and idle exhaust emissions from trucks on and operating off-site on adjacent roadways as well as gasoline service station emissions.

As illustrated in Appendix B of the Draft EIR, the operational HRA prepared for the proposed project to support the analysis under Impact AIR-3 in Section 3.3, Air Quality, accounted for all possible local arterials that could support the future trucking activities of the proposed project. This consideration in the HRA accounted for known trucking information including the possible local route network (i.e., current and future truck routes), the quantity, type, volume of truck trips and Vehicle Miles Traveled (VMT), and associated exhaust emissions. For example, the CalEEMod operational scenarios used project-specific truck trip lengths based on applicant information of three points of origin for truck trips, which provided an accurate representation of the potential exhaust emissions associated with operations.

As noted in Section 3.3, Air Quality, Table 3.3-21 of the Draft EIR, the proposed project's operational DPM emissions would not exceed the cancer risk significance threshold or non-cancer hazard index significance threshold at the MIR. As shown in Table 3.3-22 and within the Air Quality Report, the combined impact from project construction and operation at the MIR would not exceed the cumulative health risk threshold. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from TACs during operation. The proposed project would be required to implement MM AIR-2c through MM AIR-2g during project operation to reduce emissions, which represents all feasible and enforceable mitigation measures. Health risk impacts from construction and operations and construction with operations combined would be less than significant.

Moreover, trucks as part of the proposed project would utilize designated truck routes as specified by the City Municipal Code, Chapter 10.24, Commercial Vehicles. These truck routes have been designated as such due, in part, to goals of attempting to limit exposure to sensitive receptors; thus, utilizing these routes would help to achieve this underlying goal, consistent with the suggested measure. Therefore, this requested measure is similar to an existing enforceable regulation that would be applied to the proposed project. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

The ARB's Regulation for In-use Off-road Diesel Vehicles currently limits idling to no more than five consecutive minutes. As discussed in the Draft EIR, the proposed project would be required to adhere to the foregoing restriction. Therefore, this requested measure is similar to an existing regulation that would be applied to the proposed project. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

As disclosed in the Draft EIR, the current design of the proposed project is shown to have less than significant health risk impacts, and thus the Lead Agency would not have the legal authority to require such a project redesign. Furthermore, the project site would be located approximately 400 feet from the property line of MIR. Furthermore, the proposed flex industrial uses, self-storage/recreational vehicle (RV) parking, a convenience store, a car wash, and two drive-through restaurants would provide a buffer between the proposed light industrial uses and sensitive receptors, thereby helping to achieve the objective of the suggested measure. Landscaping would provide an additional buffer between loading docks and sensitive receptors. Based on the foregoing and as further supported by the analysis in the Draft EIR, no change is warranted. The comment has been noted for the record.

Consistent with this recommendation and as discussed further in the Draft EIR, all proposed loading docks are at least 300 feet away from the property line of sensitive receptors. The current project design satisfies the requested measure. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Trucks that are used during project operations would utilize designated truck routes as specified by the City Municipal Code, Chapter 10.24, Commercial Vehicles. Trucks would access and leave the project site via Shirk Street, Riggin Avenue, and Kelsey Street. Shirk Street and Riggin Avenue are classified "arterials," which are high occupancy roads that connect freeways to collector roads. These streets are also designated truck routes per Municipal Code Chapter 10.24. Kelsey Street is a collector road that provides access to Riggin Avenue. Therefore, the project design satisfies this requested measure and thus no change is warranted.

The proposed project does not include cold storage and would not have refrigerated trucks. This requested measure is not applicable to the proposed project. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

This measure is not considered feasible because use of electric-powered equipment may not be commercially available or feasible given a construction site that is not currently connected to the power grid. In addition, due to the size (284 acres) and the relatively rural nature of the project site, it is unknown whether there is sufficient availability of grid power that could service the entire site during construction, prior to installation of utility lines. Based on the foregoing, it would also be speculative to assume there would be a substantial quantifiable reduction in emissions if this suggested measure were implemented. Because temporary power would not likely be available and given that electric powered construction vehicles and equipment may not be commercially available, the suggested mitigation would not be feasible and would also not clearly lessen any significant environmental impacts. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

As discussed above, the availability and use of grid power during construction cannot be guaranteed. Therefore, it is infeasible to prohibit the use of non-emergency diesel-powered generators as they are essential to power equipment during construction. However, any diesel generator over 25 horsepower shall have engines that meet either EPA or ARB Tier IV Final off-road emission standards per MM AIR-1a, which would significantly reduce NO_X emissions and associated health risks. Furthermore, as shown in Section 3.3, Air Quality, Table 3.3-20 of the Draft EIR, the proposed project would have less than significant construction health risk impacts with implementation of MM AIR-1a. Because the suggested measure is not necessary to reduce an environmental impact caused by the proposed project, there is no legal nexus of this measure to any identified impacts of the proposed project and therefore the City does not have legal authority to impose such measure. Furthermore, as noted above, the suggested measure is not necessary to reduce construction health risk impacts to less than significant in any event. Therefore, the suggested mitigation is not feasible, would not be necessary to reduce the identified significant impact from the proposed project, and is not required under CEQA. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

The comment has been noted for the record. Providing tenants with information on incentive programs with goals to reduce emissions from heavy-duty trucks would not ensure that the tenants could or would apply for any of the programs, as applying for programs would be a voluntary action. In addition, the information would not be relevant to tenants that use third-party carriers, further limiting the potential benefit of including this suggestion mitigation. Finally, such a measure is not necessary to reduce any significant impacts. The suggested mitigation would not clearly lessen any significant environmental impacts and is not required under CEQA; therefore, no change is warranted. The commenter does not otherwise raise a substantive issue on the content of the EIR and further response is necessary.

See also Response to AFTE-5 and GSEJA-2.

For the reasons set forth above and as detailed further in Chapter 2, Project Description, the Draft EIR contains a thoughtful, detailed and robust project description that is sufficient for ensuring adequate analysis and disclosure as required under CEQA. The commenter does not raise an issue related to the adequacy of the Draft EIR, no revisions to the Draft EIR are warranted, and no further response is necessary.

Comment GSEJA-4
The commenter states that while the EIR acknowledges that a Development Agreement is a discretionary entitlement being sought, the Draft EIR does not include a copy of the full Development Agreement for review by the public and decision-makers. It alleges that the Development Agreement is a “component of the proposed project,” and therefore it purports that inclusion of the full Development Agreement in the EIR is required to satisfy CEQA’s mandate for adequate informational documents and meaningful disclosure. The commenter asserts that a revised EIR must be prepared to include the Development Agreement for review, analysis, and comment by the public and decision-makers.

Response to *GSEJA-4*
The comment is noted for the record. It, however, does not provide substantial evidence regarding any significant environmental impact that has not been adequately addressed in the Draft EIR or raise an issue related to the adequacy of the Draft EIR. With respect to the Development Agreement, the commenter’s assertion as to the legal requirements under CEQA is inaccurate. The Development Agreement is a binding contract between the project site owner and the City that vests rights to develop the proposed project as well as related rights and obligations governing project implementation, which will be considered by the City Council concurrent with its review of this Draft EIR. Thus, the Development Agreement is not a “component of the proposed project;” rather, it is a legal mechanism to implement the proposed project that is being studied in the Draft EIR. It is not a distinct and different project element or component that requires separate and/or additional environmental review beyond what is already reflected in the Draft EIR and this Final EIR.

As required by CEQA, the Project Description identifies, to the extent known by the Lead Agency, a list of discretionary permits, entitlements and other approvals required to implement the project and for which the EIR would be utilized in the consideration of same (CEQA Guidelines § 15124(d)). CEQA does not, however, require that detailed specific application materials themselves for such discretionary approvals be included in an EIR. Here, consistent with CEQA’s requirements, the Draft EIR expressly identified the required discretionary approvals, entitlements and permits, including, among others, the Development Agreement, in Section 2.6, Required Actions and Approvals. See, e.g., *East Sacramento Partnership for a Livable City v. City of Sacramento* (2016) 5 Cal.App.5th 281, 291 (Draft EIR is sufficient if it makes reference to a required Development Agreement to alert persons interested in the document to its relevance but need not include the Development Agreement itself in the Draft EIR). To the extent the Development Agreement and/or other specific entitlement applications contemplate improvements or other physical changes in the environment, those improvements are identified and analyzed in the EIR as part of the project being studied. Pursuant to applicable State and local laws and regulations, the Development Agreement will be considered for a recommendation by the Planning Commission prior to its consideration by the City Council; consideration by both of the foregoing bodies will occur as part of a duly noticed public hearing process. A draft of the proposed Development Agreement will be made available to the public pursuant to applicable procedures before its consideration by the advisory and decision-making bodies in accordance with the requirements of the Government Code and other applicable law.

For the reasons set forth above and as detailed further in Chapter 2, Project Description, the Draft EIR contains a thoughtful, robust project description that is sufficient for ensuring adequate analysis and disclosure as required under CEQA. The commenter does not raise an issue related to the adequacy of the Draft EIR, no revisions to the Draft EIR are warranted, and no further response is necessary.

Comment GSEJA-5
The commenter states that the project description and EIR are insufficient in adequately describing the proposed project because they do not provide specific information regarding which lots are affected by the Conditional Use Permit (CUP), deviations in lot sizes from requirements, and which lots do not have public street frontage. The comment suggests that a revised EIR must be prepared to include the complete details of the CUP.

Response to GSEJA-5
The comment is noted for the record. It does not provide substantial evidence regarding any significant environmental impact or otherwise raise a substantive issue on the content of the EIR.

See also Response to GSEJA-2.

Regarding the details of the related CUP process, the Draft EIR properly described the need for an approval of this and other discretionary land use entitlements and disclosed that, among other things, the CUP would involve consideration of certain site planning elements such as deviations in lot sizes and lots that would not have public street frontage, as permitted under the City's Municipal Code. The Draft EIR incorporated sufficient information to properly consider the potential environmental impacts of the proposed project, including, among others, those relating to air quality, transportation, land use, noise, hydrology and water quality. The commenter fails to identify any specific areas of environmental review that have not been evaluated and disclosed as these specifically relate to the relatively minor planning issues referenced therein. The related CUP process will involve consideration of the non-CEQA related planning issues associated therewith pursuant to applicable provisions in the City's Municipal Code.

As required by CEQA, the Project Description identifies, to the extent known by the Lead Agency, a list of discretionary permits, entitlements and other approvals required to implement the project and for which the EIR would be utilized (CEQA Guidelines § 15124(d)). CEQA does not, however, require the detailed specific application materials themselves for such permits associated with such approvals to be included in an EIR. Here, consistent with CEQA's requirements, the Draft EIR expressly identified the required discretionary approvals, entitlements and permits, including, among others, the CUP(s), in Chapter 2, Project Description, Section 2.6, Required Actions and Approvals.

Pursuant to applicable State and local laws and regulations, the applicant is currently submitting a CUP application. The applicant may, in the future, pursue additional CUP(s) to address all project elements. The CUP(s) will be considered by the relevant City decision-making bod(ies) as part of the duly noticed public hearing process. No action may be taken on any CUPs without CEQA compliance. The CUP referenced by the comment would involve all parcels involved in the proposed project. According to the Visalia Zoning Ordinance, Table 17.25.030 and as discussed in more detail in Chapter 2, Project Description, the proposed project's objective of providing an automated car wash and fast-food restaurant(s) with a drive-through would be allowed subject to approval of a CUP, and the self storage and fueling station uses would be permitted by right as permitted uses under the applicable Zoning District. The CUP(s) would allow the proposed convenience store and drive-through restaurants, as well as a reduction in the minimum parcel size of 5 acres and approval of lots not facing public street frontage, as prescribed by and pursuant to the governing provisions of the Zoning and Subdivision Ordinances. All proposed improvements would be required to be constructed in accordance with applicable City development standards, including, among others, those relating to height, floor area ratio (FAR), lot coverage, setbacks, undergrounding of utilities, loading/parking requirements, and landscaping. As such, to the extent the CUP(s) contemplate improvements or other physical changes in the environment, those improvements are identified and analyzed in the Draft EIR since they are reflective of the fundamental components of the proposed project.

For the reasons set forth above and as detailed further in Chapter 2, Project Description, the Draft EIR contains a thoughtful, detailed, robust project description that is sufficient for ensuring adequate analysis and disclosure as required under CEQA. No revisions to the Draft EIR or further response are warranted.

Comment GSEJA-6
The commenter states that Table 3-1 of the Draft EIR excludes the YS Industrial Park- Phase 3, which is adjacent to the southern boundary of the project site. The comment suggests that the Draft EIR must be revised to include this project within the cumulative analysis.

Response to *GSEJA-6*
The comment is noted for the record. To provide the impact assessment that is fundamental of an EIR, the EIR must describe environmental conditions in place without the project, which then serves as the baseline against which predicted effects can be described and quantified. Pursuant to applicable requirements under CEQA, the baseline utilized in the Draft EIR, including for use in evaluating potential cumulative impacts, is the date when environmental review commenced, defined as the date of publication of the NOP (published August 29, 2022) (e.g., CEQA Guidelines § 15125(a)(1)).

Accordingly, for purposes of reasonably foreseeable future cumulative projects, the list is limited to those projects that: (1) were approved but not yet built, (2) were currently being processed pursuant to a formal application that had been submitted by or before August 29, 2022, and (3) those approved and under construction, as identified in the Draft EIR, including in the Transportation Impact Analysis (TIA). The YS Industrial Park Phase 3 application was not deemed complete by the

City as of the issuance of the NOP, and therefore the City did not include it in the cumulative projects analysis.

Therefore, the Draft EIR's cumulative projects analysis, including its description of other cumulative developments considered therein, is adequate under CEQA. This comment does not otherwise raise a substantive issue on the content of the EIR. No changes are warranted, and no further response is required.

Comment GSEJA-7
The commenter states that the Draft EIR did not include an analysis of relevant environmental justice impacts to nearby communities, which are overly burdened by and especially burdened by existing sources of pollution as identified by CalEnvironScreen, Cal/EPA's screening tool. Additionally, the commenter notes that the project's census tract and the adjacent census tracts are identified as SB 535 Disadvantaged Communities, and provides a general description of the implications of this designation, including impacts associated air quality/health risk, water quality and soils/hazardous materials generally, which the commenter asserts have not been discussed or presented for analysis in the Draft EIR.

Response to *GSEJA-7*
The comments are noted for the record. To the extent the comment raises only generalized concerns and does not identify a project-specific environmental concern, no further response is necessary.

CEQA does not require analysis of environmental justice considerations in this, or any Draft EIR and the City does not have any applicable thresholds of significance related to environmental justice for purposes of CEQA. Of relevance here, neither the ARB nor the SJVAPCD, both of which are expert public agencies charged with addressing air quality and GHG emissions, has recommended significance thresholds be adjusted for environmental justice considerations, and thus neither entity recommends the evaluation of same as part of the CEQA process.

As discussed in more detail in Section 3.3, Air Quality, of the Draft EIR, it utilized the currently recommended SJVAPCD significance thresholds to determine construction- and operational-related potential health risk impacts resulting from the proposed project in accordance with the mandates of CEQA. The Draft EIR evaluated potential impacts to nearby sensitive receptors located southeast of the project site, Air Quality, through the analysis of cumulatively considerable criteria pollutant emissions and health risks under Impact AIR-2 and Impact AIR-3. The Draft EIR acknowledged that the project site is adjacent to existing sensitive receptors, some of which live in adjacent areas identified by the comment. Therefore, the Draft EIR identifies the potential health risk impacts that could occur as a result of project construction and operation and includes feasible mitigation to reduce these impacts. See also Response to GSEJA-3 and Response to AFTE-4.

For purposes of conducting the health risk impact analysis, the Draft EIR's analysis properly identified the closest sensitive receptors to the proposed project in the dispersion modeling; it also identified the MIR during each construction phase of the proposed project, which may be different since the MIR during pollutant-generating activity is influenced by the distance of that receptor to the pollutant source(s), the amount and type of pollutants generated by each source, the topography and direction of the MIR as it relates to the pollutant source(s), and the prevailing meteorological conditions.

As discussed in Section 3.3, Air Quality, the proposed project's construction and operational DPM emissions would not exceed the cancer risk significance threshold or non-cancer hazard index significance threshold at the MIR.

In terms of potential impacts with respect to water quality, GHG, soils and/or hazardous materials, the Draft EIR contains a thoughtful and robust analysis in the relevant chapters (see Sections 3.10, Hydrology and Water Quality; 3.8, Greenhouse Gas Emissions; 3.7, Geology, Soils, and Seismicity; and 3.9, Hazards and Hazardous Materials respectively). The commenter merely asserts generalized concerns but does not raise any project-specific issues with respect to these environmental topic areas, nor does the commenter raise a legitimate issue related to the adequacy of the Draft EIR For the reasons set forth above and as otherwise detailed therein, the Draft EIR contains sufficient analysis and disclosure with respect to all relevant environmental topic areas and no changes are warranted and no further response is necessary.

In contrast, an off-site worker is a worker receptor who is not an employee of or a contractor for proposed project. The analysis of a residential receptor as the Maximally Impacted Sensitive Receptor (MIR) during construction and operation would be the most conservative approach because for residential receptors. Age sensitivity factors are applied as multipliers to the cancer risks for exposures during infancy and childhood to account for increased sensitivity to carcinogens during early-in-life exposures. The proposed project's HRA determined that the MIR is a single-family residence approximately 400 feet southeast of the project site. The MIR represents the maximally impacted, or the worst-case, receptor risks. Because residential receptors have higher sensitivity factors compared to workers, no off-site worker would experience health risks greater than the MIR. As shown in Section 3.3, Air Quality, Tables 3.3-19 through 3.3-22, the MIR would not experience health risks beyond thresholds set forth by the SJVAPCD. As shown in Section 3.3, Air Quality, the proposed project would have less than significant impacts related to health risks.

The construction HRA was prepared and followed the methodologies prescribed in the California Environmental Protection Agency (Cal/EPA) OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines–Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015), which was adopted in 2015 replacing the previous 2003 guidance manual. Section 3.3, Air Quality, pages 3.3-62 through 3.3-68 of the Draft EIR provide an overview of the HRA assumptions, as well as a summary of the HRA results. Detailed HRA assumptions and results are provided in Appendix B of the Air Quality, Greenhouse Gas Emissions, and Energy Report included as Appendix B of the Draft EIR. As detailed more fully therein, the HARP2 program was used to automatically calculate the health risk for the proposed project. Use of the HARP2 program ensures that the calculational procedures for cancer and non-cancer risk follow the OEHHA 2015 Guidelines and that Age Sensitivity Factors (ASF) and Fraction of Time at Home (FAH) parameters are applied correctly. The HARP2 output files which are included in Appendix B, Health Risk Appendix Supporting Information of the Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report detail how the HARP2 model was applied and document the appropriate HRA parameters for ASF and FAH for exposure. As set forth therein, the ASF appropriately started in the third trimester for residential receptors and the FAH was set to 100 percent for residential receptors.

With respect to the assertion that the Draft EIR HRA also includes emissions from the drive-through restaurants, considering PAH risk from commercial cooking operations, as mentioned on pages 3.3–63 of Section 3.3, Air Quality, of the Draft EIR, there are several types of different cooking sources/configurations that could be used at the quick serve restaurants (QSRs) from the proposed project and while the restaurants may utilize char broilers, they may also utilize other cooking technologies (such as griddles and/or deep fryers). With this in mind, SJVAPCD references were reviewed for commercial cooking including emission factors, emission inventories and toxicity data for the various TACs emitted.

Considering the range of combination of cooking quantities, cooking types and toxicity data, the predicted risk from a QSR could vary significantly, by orders of magnitude. For example, a QSR utilizing only griddles and low-to-average values of poultry cooking might result in a risk of 0.01 in a million, while a chain driven char broiler used primarily for hamburgers might predict a risk of 0.5 in a million, while an underfired char broiler for steak might result in a risk of 10 in a million. Stack design and exhaust parameters could also influence the predicted health risk results by another order of magnitude (1–10), introducing even more uncertainty.

Accordingly, because the nature, type, and usage of the QSRs is not currently known, the consideration of PAH risk in the HRA is speculative in nature and thus not required by CEQA. Moreover, the commenter recognizes the health risks associated with commercial cooking operations such as char broiler emissions and, as such, has promulgated Rule 4692, which addresses emissions and controls for underfired and chain driven char broilers. If the future QSRs built and operated as part of the proposed project are char broilers, they would be captured and controlled by provisions under SJVAPCD Stationary Source Rules and permitting processes and risks would be addressed at such time.

Comment GSEJA-8
The commenter generally asserts that there are three “approved compliance modeling software” (i.e., CBECC-Com, EnergyPro, and IES VE) for nonresidential buildings and purports that CalEEMod is not listed as an approved software. The commenter purports that CalEEMod modeling “does not comply with the 2022 Building Energy Efficiency Standards” and therefore “under-reports” the proposed project’s significant energy impacts and fuel consumption. The comment further states that because the Draft EIR did not accurately or adequately model the energy impacts in compliance with Title 24, a revised EIR with modeling using one of the approved software types must be prepared and circulated for public review in order to adequately analyze the proposed project’s significant environmental impacts.

Response to GSEJA-8
The comment is noted for the record. The commenter does not provide substantial evidence regarding any significant environmental impact that was not evaluated and disclosed in the Draft EIR. The basis for the commenter’s assertion that CalEEMod is “not approved” is unclear and unsubstantiated. Additionally, the commenter does not identify any project-specific impact that the Draft EIR failed to consider and disclose.

Use of CalEEMod for purposes of modeling potential air quality and related health risk assessments is appropriate. As detailed more fully in Section 3.3, Air Quality, of the Draft EIR, the City, in its discretion as Lead Agency, has determined to utilize the applicable SJVAPCD thresholds and methodologies, which are contained under each impact statement in Section 3.3 and are based on scientific and factual data appropriately considered and incorporated therein by SJVAPCD, as the expert regulatory public agency charged with addressing air quality and GHG emissions within SJVAPCD boundaries.

Specifically, the City utilized approved models from the SJVAPCD, which is the authority for this air basin, the expert agency with respect to air emissions and which directed that CalEEMod be used. CalEEMod is a Statewide land use emissions computer model designed to provide a uniform platform to calculate construction and operational emissions from land use development projects, such as the proposed project. CalEEMod was developed for CAPCOA in collaboration with the California Air Districts. The model is a comprehensive tool for quantifying air quality impacts from land use projects located throughout California, is used throughout California, and can properly be used for a variety of situations where an air quality analysis is necessary, such as preparing CEQA or National Environmental Policy Act (NEPA) documents, conducting pre-project planning, and verifying compliance with local air quality rules and regulations. CalEEMod includes the gas and electric utility emissions factors pursuant to the location of the proposed project, as well as building energy zones. CalEEMod also generates default electricity and natural gas consumption that consider Title 24 standards.

The commenter referenced CBECC, EnergyPro, IES VE software, which are approved specifically for Title 24 compliance; however, they are used to confirm that a final building design (with detailed information included in its construction drawings) is Title 24 compliant. They are not required or appropriate for the purposes of conducting air quality analysis under CEQA prior to the submission of final designs.

The final designs and construction drawings are not currently available for the proposed project and are not typically prepared until after a proposed development project is approved/entitled. Exact as-built design specifications are not required, nor are they possible in the early stages of a project when an EIR is prepared. Rather, an EIR's project description may allow for flexibility and leave room for future design decisions. See *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1052-55 (upholding an EIR's project description that "provide[d] for flexibility needed to respond to changing conditions and unforeseen events that could possibly impact the Project's final design," since "courts [have not] required resolution of all hypothetical details prior to approval of an EIR"); see also *City of Antioch v. City Council* (1986) 187 Cal.App.3d 1325, 1336-37 (holding that it was unreasonable and unrealistic to demand that an EIR "must describe in detail each and every conceivable development scenario"). In other words, an EIR need not contain a design-level description of the project; a conceptual description of project components is permissible as long as the description contains sufficient detail to enable the public and the decision-makers to understand the environmental impacts of the proposed project. *Creek Citizens Coalition v. County of Tulare (1999*) 70 Cal.App.4th 20, 26, 36 ("Appellants have not established that the general description of the [proposed project] in the EIR coupled with approval of final designs after the project is approved violated any CEQA mandate."). These software are not used for disclosing air emissions, and there is no substantial evidence provided that supports the commenter's position that these software should be used for discussing air emissions in connection with the proposed project (e.g., *Maintain Our Desert Env't v. Town of Apple Valley* (2004) 124 Cal.App.4th430).

The City has the authority under CEQA to rely upon its experts and the methodologies recommended by relevant expert public agencies, based on substantial evidence in the record, in terms of selecting the appropriate methodologies to utilize in conducting the CEQA analysis.

The Draft EIR and underlying technical studies correctly used CalEEMod to estimate energy demand for CEQA purposes based on average intensity factors for similar land use types. Since the occupants of the proposed project's buildings are unknown at this time, and specific, detailed information about the future specific building users' energy use is also not available at this time, it is appropriate to rely upon the CalEEMod default assumptions which have been derived by CAPCOA and accepted by the SJVAPCD. To do otherwise would involve improper speculation.

There is no requirement in CEQA to show specific compliance with 2022 Building Energy Efficiency Standards based on conceptual building designs that are proposed at the entitlement stage of a project's approval process. As is consistent with typical practice, a required showing of compliance with the above-referenced Energy-Efficient Standards as well as other applicable building code and CALGreen Code requirements would be addressed pursuant to State law prior to issuance of each building permit and verified by the City's Building Safety Division.

For the reasons set forth above and as otherwise detailed therein, the Draft EIR contains sufficient analysis and disclosure with respect to all relevant environmental topic areas and no changes are warranted. The commenter does not raise a legitimate issue related to the adequacy of the Draft EIR. No changes are warranted and no further response is necessary.

Comment GSEJA-9
The commenter states that the Draft EIR does not discuss or analyze the proposed project's compliance with the General Plan's Land Use Buildout Scenario. The commenter asserts that the General Plan projected approximately 9,689,000 square feet of industrial building area between 2010 and 2030, as well as approximately 9,670 industrial jobs, and the project (inclusive of two other non-related developments) would collectively represent about 54 percent of that assumed growth. The commenter suggests that the Draft EIR has not provided adequate evidence that the growth generated by the proposed project was anticipated by the General Plan, Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), or Air Quality Management Plan (AQMP). Additionally, the commenter discusses other industrial development projects in the City, which when combined with the proposed project and other projects proposed by Seefried Industrial Properties, Inc., represent approximately 80.5 percent of the City's industrial buildout through 2030. The comment notes that these totals increase further when other industrial development approved, submitted, or "in the pipeline" since General Plan adoption are added to the total. As such, the commenter states that a revised EIR must be prepared to include a cumulative analysis on this topic.

Response to GSEJA-9

The comment is noted for the record. It is not clear if the commenter is criticizing the cumulative impact analysis in general or the land use impact analysis specifically. Furthermore, besides making general conclusory statements, the comment does not provide substantial evidence regarding any deficiency in the cumulative impact analysis or identify any significant environmental impact that was not properly disclosed and/or mitigated in the Draft EIR.

The project site is currently designated under the General Plan as Industrial and Light Industrial and would be developed with uses permitted under those designations and pursuant to applicable FAR and other development standards in accordance with the City's land use vision reflected in its General Plan. Thus, the project is consistent with the buildout scenario contemplated in the General Plan and is therefore properly accounted for in the growth projections of the General Plan as well as the RTP/SCS and AQMP (which rely on and incorporate in General Plan growth/population projections). The fact that the City may be considering requested entitlements for a range of other industrial projects consistent with the General Plan vision does not trigger any type of additional "consistency" analysis under CEQA, as alleged by the commenter, particularly where, as here, the City has prepared a full and complete environmental analysis as reflected in the Draft EIR, as opposed to tiering from the General Plan EIR. Thus, the commenter does not raise a legitimate issue related to the adequacy of the Draft EIR. No further response or revision of the Draft EIR is warranted.

Regarding the commenter's assertion to combine the proposed project with other related projects and treat them as one overall project that constitutes the "whole of the action," this is unsupported and inaccurate. The specifically referenced projects (inclusive of SPR21071 and SPR22041) are separate and distinct from each other and have independent utility, and thus are not part of the proposed project. Therefore, it would be improper to analyze them in the Draft EIR as such. See also Response to GSEJA-2.

To the extent the commenter then shifts its reference to specifically identified projects (SPR21071 and SPR22041), as well as other unspecified projects, and attempts to frame this as a cumulative analysis issue, the comment in this regard also lacks merit. There is no deficiency with the cumulative effects analysis as it relates to cumulative impacts. As is discussed in more detail in the Draft EIR, every topical section utilized Table 3-1, Cumulative Projects, contains a proper cumulative analysis, which includes an identification of the appropriate geographic scope for the particular topic at issue, and then identifies and considers relevant past, present and reasonably probable future projects that could potentially combine with the project to create significant cumulative impacts. In so doing, the Cumulative Projects List approach was utilized, which is a method that is expressly authorized by CEQA Guidelines Section 15130, subdivision (b)(1)(A). Table 3-1 includes reasonably probable future projects that are either awaiting approval based on a formal application having been submitted, approved but not yet constructed, or under construction, as of the date of NOP publication. This approach fully satisfies CEQA. Nothing in the law requires the City to use buildout in the General Plan as the basis for conducting cumulative impact analysis. Notably, YS Industry projects are listed in Table 3-1 and included in the cumulative analysis. Regarding the specific comment about the scope of cumulative projects considered in the analysis. The YS Industrial Park Phase 3 application was not deemed complete by the City when the NOP was circulated, and therefore the City did not include it in the cumulative projects analysis. See also Response to GSEJA-6. Thus, the commenter does not raise a legitimate issue related to the adequacy of the Draft EIR. No further response or revision of the Draft EIR is warranted.

Comment GSEJA-10
The commenter states that Table 3.11-2, General Plan Consistency Analysis, of the Draft EIR provides an "erroneous and misleading" analysis of the proposed project and its significant and unavoidable impacts because it does not provide consistency analysis with all land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The commenter claims that the proposed project has significant potential to conflict with many of these policies, including General Plan Policy T-P-9, which requires maintaining acceptable levels of service for all transportation modes and facilities as established in General Plan Table 4-1, Intersection Level of Service Definitions, and Table 4-2, Level of Service Criteria for Roadway Segments.

Response to GSEJA-10
The comment is noted for the record. To the extent the comment involves general concerns about the consistency analysis and does not raise project-specific issues relating to environmental concerns, no further comment is required.

In preparing a land use consistency analysis for purposes of CEQA, the relevant goals and policies are those that were adopted for the purpose of avoiding or mitigating an environmental impact. It specifically does not require an analysis of all policies.

Also, to the extent the commenter raises concerns about the analysis's treatment of certain specific goals and policies, the comment has not provided substantial evidence that the above-referenced goals and policies were adopted by the City for purposes of avoiding or mitigating environmental impacts. For example, Policy T-P-9 addresses Level of Service (LOS) issues at intersections. Pursuant to SB 743, CEQA was amended to confirm that such LOS items are no longer typically cognizable under CEQA and thus LOS is no longer used as a metric to identify environmental effects. The traffic analysis included in the Draft EIR as Appendix I is consistent with the City's current traffic impact analysis guidelines (adopted in March 2021), which completely exclude roadway segment analysis and thresholds for the purpose of determining transportation deficiencies under CEQA.

Roadway segment analysis relies on assumptions of peak-hour traffic to estimate roadway capacities. While this analysis is a good estimation of conditions along highways and freeways, it is generally not representative of the actual operations of roadways, which is directly related to the intersection operations during peak-hour conditions. For this reason, the City has moved away from roadway segment LOS requirements and relies on analysis of peak-hour conditions to determine transportation capacity needs.

Despite this, the Draft EIR includes an LOS as well as a queueing analysis that fully addresses the issues being raised in this comment. Furthermore, General Plan Policy T-P-18 states, "To ensure that citywide traffic service levels are maintained, require a traffic study, as a condition of development, of surrounding arterials, collectors, access roads, and regionally significant roadways for any major project that would require a General Plan amendment, and for projects where the proposed use could create traffic congestion because needed improvements identified by this General Plan would not be completed before project occupancy or are not funded under the [Capital Improvement Plan] CIP." Because the project land uses are consistent with the General Plan land use designations and because Riggin Avenue and Shirk Street have funded and designed CIP improvements, roadway segment analysis was not required to be considered. This comment does not otherwise raise a substantive issue on the content of the EIR. No changes to the Draft EIR are warranted and no further response is required.

Comment GSEJA-11
The commenter claims that the proposed project has significant potential to conflict with many of these policies, including General Plan Policy T-P-15, which requires additional right-of-way and improvements of Circulation Element facilities where needed for turning movements or to provide access to adjacent properties wherever access is not feasible from the lower classification street system.

Response to GSEJA-11
See Responses to GSEJA-10 and GSEJA-12.

As noted by the commenter, the referenced policy requires "additional right-of-way and improvements of Circulation Element facilities where needed for turning movements or to provide access to adjacent properties wherever access is not feasible from the lower classification street system."

As a preliminary matter, the commenter does not provide substantial evidence that the referenced policy was adopted for the purpose of avoiding or mitigating an environmental impact. Given the nature of the policy, it is reasonable for the City to conclude this policy is focused on planning and policy issues related to appropriate circulation improvements.

Moreover, the commenter does not indicate how the project would be inconsistent with this policy or provide substantial evidence regarding any significant environmental impact. To the contrary, the project proposes to construct or make fair share payments toward various identified circulation improvements, as discussed in Chapter 2, Project Description and Section 3.14, Transportation (including MM TRANS-1 through MM TRANS-9). The foregoing improvements are based, in part, on the City's technical assessment of the appropriate and relevant circulation facilities that should be provided, either via construction or through proportionate fair share payment(s), in order to serve the project and consistent with the City's overall CIP. These street and other transportation-related improvements, which were delineated, in part, via the LOS and queueing analysis conducted by the City and its transportation experts can be implemented within the General Plan roadway classifications right-of-way. Access to adjacent properties is maintained, consistent with the circulation element classifications. Additional right-of-way beyond the scope of the street standards is not necessary for the construction of the identified project circulation improvements.

The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA. No change is warranted, and no further response is necessary.

Comment GSEJA-12
The commenter claims that the proposed project has significant potential to conflict with many of these policies, including General Plan Policy T-P-61, to encourage high-security off-street parking areas for tractor-trailer rigs in industrial areas.

Response to GSEJA-12
See Responses to GSEJA-10 and GSEJA-11. Note that California courts have held that parking is appropriately recognized as a social issue and is not typically recognized as an environmental concern. San Franciscans Upholding the Downtown Plan v. City & County of San Francisco (2002) 102 CA4th 656, 697; Save Our Access–San Gabriel Mountains v Watershed Conserv. Auth. (2021) 68 CA5th 8, 27 n10.)

As a preliminary matter, the commenter does not provide substantial evidence that the referenced policy was adopted for the purpose of avoiding or mitigating an environmental impact. Given the nature of the policy, it is reasonable for the City to conclude this policy is focused on planning and policy issues related to security in identified parking areas, which is typically not treated as a cognizable CEQA concern.

Moreover, the commenter does not indicate how the project would be inconsistent with this policy or provide substantial evidence regarding any significant environmental impact that was not identified and disclosed in the Draft EIR. A consistency analysis was completed for the goals and policies adopted for the purpose of avoiding or mitigating an environmental impact that were relevant to the analysis.

Furthermore, the commenter's approach to a consistency analysis for purposes of CEQA is inaccurate under the law. "The City, in its sole discretion, shall determine a proposed project's consistency with the City's General Plan. Consistency is achieved if a project will further the overall objectives and policies of the General Plan and not obstruct their attainment, recognizing that a proposed project may be consistent with the overall objectives of the General Plan, but not with each and every policy thereof. In all instances, in making a determination of consistency, the City may use its discretion to balance and harmonize policies with other complementary or countervailing policies in a manner that best achieves the City's overall goals." *Citizens for Positive Growth & Preservation v. City of Sacramento* (2019) 43 Cal.App.5th 609. The courts have repeatedly held that "an action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment." *See, e.g., Friends of Lagoon Valley v. City of Vacaville* (2007) 154 Cal.App.4th 807, 817.

Thus, contrary to the commenter's assertion, a project is not required to comply with each and every General Plan goal and policy. CEQA does not contain any specific requirements for determining whether a project is inconsistent with an applicable plan. Courts will defer to a lead agency's decision on consistency with its own plan unless, on the basis of evidence before the decision-making body, a "reasonable person" could not have found the project to be consistent. See, e.g., *The Highway 68 Coalition v. County of Monterey* (2017) 14 Cal.App.5th 883, 896; *Clover Valley Found. V. City of Rocklin* (2011) 197 Cal.App.4th 200, 239.

Moreover, simply identifying a handful of policies (as noted in Comments GSEJA-10 through GSEJA-13), which have not been specifically and expressly addressed in the EIR, but not explaining the alleged inconsistency or significant environmental impact the omission would create (as these comments fail to do), is not sufficient to demonstrate that a reasonable person could not have found the project to be consistent. Also, CEQA is focused only on planning conflicts with policies that have been adopted for purposes of avoiding or mitigating environmental impacts (see, e.g., *The Highway 68 Coalition v. County of Monterey* (2017) 14 Cal.App.5th 883), and as noted above, it is reasonable for the City to conclude that a number of the cited policies were not adopted for the purpose of avoiding o or mitigating environmental impacts, in which case they are not relevant for CEQA purposes. As explained above, under the Planning and Zoning Law, perfect consistency with all aspects of a general plan is not possible or required. As indicated above, a lead agency may find a proposed project to be consistent with relevant goals and policies in the local general plan if it determines that the subject project would further one or more policies and would not obstruct other policies. See, e.g., 67 Ops Cal Atty Gen 75 (1984); OPR, State of California General Plan Guidelines (2003). Generally, given that land use plans reflect a range of competing interests, a project should be compatible with the plan's overall goals and objectives but need not be in perfect conformity with every plan policy. See, e.g., *Golden Door Props., LLC v. County of San Diego* (2020) 50 Cal.App.5th 467, 502 (EIR finding that climate action plan would not be inconsistent with general plan was supported by substantial evidence); *Friends of Lagoon Valley v. City of Vacaville* (2007) 154 Cal.App.4th 807, 815 (upholding overall consistency finding even though project deviated from some plan provisions because plan allowed for balancing of competing policies); *Sequoyah Hills Homeowners Ass'n v. City of Oakland* (1993) 23 Cal.App.4th 704, 719 (although a project should be "in harmony" with a general plan's goals and objectives, it need not completely satisfy plan policies that allow for flexibility in interpretation and application).

As noted above, the commenter does not provide substantial evidence that the referenced policy was adopted for the purpose of avoiding or mitigating environmental impacts nor does it provide any specific information as to a potential project inconsistency therewith. Furthermore, Policy T-P-61 does not create any mandatory provisions that would apply to the proposed project. Additionally, the proposed project would provide parking for automobiles, trailers, and trucks in accordance with the City's applicable Municipal Code requirements, as well as include mounted outdoor lighting for maximum security.

Therefore, the Draft EIR properly concludes that the proposed project is consistent with the relevant provisions of the General Plan. The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the City, as Lead Agency, has adequately addressed this issue under CEQA. No further response is necessary.

Comment GSEJA-13
As a continuation of Comment GSEJA-10 through GSEJA-12, the commenter states that the proposed project has the potential to conflict with Policy AQ-O-3 of the General Plan, which aims to reduce GHG emissions that contribute to global climate change in accordance with federal and State law.

Response to GSEJA-13

The commenter does not provide any substantial evidence to support its claim of inconsistency. To the contrary, as detailed more fully in the Draft EIR, the GHG emissions analysis demonstrates that the proposed project would result in less than significant impacts with respect to the consistency of the proposed project with applicable plans, policies, and regulations for reducing GHG emissions. See also Response AFTE-4.

Thus, there is substantial evidence to support the City's conclusion that the proposed project would be consistent with AQ-O-3. To be responsive to the comment, AQ-O-3 is added to the GP consistency analysis table, see Errata section of this Final EIR. This minor revision reflects a clarification and amplification and would not result in a new significant impact or an increase in severity of a previously identified significant impact or otherwise trigger recirculation of the Draft EIR under CEQA Guidelines Section 15088.5. This comment does not otherwise raise a substantive issue related to the content of the EIR commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA, and no further response or change is warranted.

See also Responses GSEJA-10, GSEJA-11, and GSEJA-12.

Response to *GSEJA-14*

The commenter states that the analysis of several goals and policies within Table 3.11-2, General Plan Consistency Analysis, of the Draft EIR, provides "erroneous and misleading" statements, such as concluding that the proposed project is consistent with Objective AQ-O-2 of the General Plan (strive to improve air quality by implementing emissions reduction efforts targeting mobile sources, stationary sources and construction-related sources). The basis for the comment's assertion is that while the consistency analysis refers to the identified mitigation measures, it did not mention in this table that the proposed project would have significant and unavoidable air quality impacts after mitigation is implemented, which reflects a "direct conflict."

See Responses to GSEJA-10, GSEJA-11, and GSEJA-12. As explained more fully in Response to GSEJA-12, the commenter's reference to a "direct conflict" equating to a significant and unavoidable impact is not accurate under CEQA.

Furthermore, the commenter does not provide any substantial evidence to support its claim of inconsistency. The Draft EIR provides a detailed and thoughtful basis for a consistency determination, which is within the purview of the City based on substantial evidence in the record. Objective AQ-O-2 specifically concerns the implementation of emissions reduction efforts for mobile sources, stationary sources, and construction-related sources. The proposed project is consistent with the plain reading of Objective AQ-O-2, because the proposed project, with implementation of MM AIR-2a through MM AIR-2h, would include a range of strategies to reduce emissions from mobile and construction-related sources (the proposed project would not involve major stationary emissions sources). For example, MM AIR-2d would require robust EV charging infrastructure for vehicles and future EV trucks. MM AIR-2c would require that all on-site off-road and on-road service equipment be zero emissions, to the extent that the appropriate technologies are commercially available. Both of these measures would lead to direct and future reductions in emissions from mobile sources. MM AIR-2a would require the use of off-road construction equipment that meets

EPA or ARB Tier IV Final off-road emission standards, to the extent that such equipment is commercially available. MM AIR-2b would require “super compliant” volatile organic compound (VOC) coatings during construction. Both of these measures would reduce the project’s construction-related emissions. See also Responses to AFTE-4 and AFTE-5.

As explained in Response to GSEJA-12, a project is not required to comply with all General Plan goals and policies, and CEQA does not contain any specific requirements for determining whether a project is inconsistent with an applicable plan. Courts will defer to a lead agency’s decision on consistency with its own plan unless, on the basis of evidence before the decision-making body, a “reasonable person” could not have found the project to be consistent. See *The Highway 68 Coalition v. County of Monterey* (2017) 14 Cal.App.5th 883, 896; *Clover Valley Found. V. City of Rocklin* (2011) 197 Cal.App.4th 200, 239.

The City, as Lead Agency, has determined based on substantial evidence in the record that, due in part to the proposed project’s obligation to comply with MM AIR-2a through MM AIR-2h, the proposed project would be consistent with Objective AQ-O-2, which specifically involves the implementation of emissions reduction efforts and not whether a project would result in exceedances of SJVAPCD thresholds (i.e., whether a project would result in significant air quality impacts).

However, contrary to the commenter’s assertion, the Draft EIR does not exclude from analysis the fact that the proposed project would have significant and unavoidable project-level and cumulative-level impact to air quality. The Draft EIR provides a detailed, 72-page discussion of the proposed project’s air quality impacts—including significant and unavoidable impacts—in addition to hundreds of pages of detailed air quality modeling worksheets in the appendix. The consistency analysis within Table 3.11-2 addressing Objective AQ-O-2 does not conflict with this broader air quality analysis and its conclusions.

Therefore, the Draft EIR properly concludes that the proposed project is consistent with the relevant provisions of the General Plan. This comment does not otherwise raise a substantive issue related to the content of the EIR, nor does it provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA.

Response to GSEJA-15

The commenter states that the Draft EIR has not adequately analyzed the proposed project’s potential to substantially increase hazards due to a geometric design feature or incompatible uses, as well as its potential to result in inadequate emergency access. The comment therefore suggests that the proposed project would not be consistent with Objective T-P-24 of the General Plan, as stated in Table 3.11-2 of the Draft EIR. The commenter asserts that the Draft EIR did not include a project-specific safety hazard analysis and discusses that there are no exhibits depicting the available truck turning radius at the intersection of the proposed project driveways and adjacent streets or within the project site. The commenter further states that the EIR does not include the sight distance analysis for review by the public and decision-makers, and thus the comment alleges this does not comply with CEQA’s requirements for adequate informational documents and meaningful disclosure. Additionally, the commenter asserts that the recommendations within Table 23, Summary of Access

Recommendations, of Appendix I were not incorporated as mitigation measures in the Draft EIR. As such, the commenter suggests that outstanding project traffic queueing and safety exist, resulting in potentially significant impacts related to Impact TRANS-3.

See Responses to GSEJA-10, GSEJA-11, and GSEJA-12.

Regarding Objective T-P-24, as noted in the comment, it provides: "Require that proposed developments make necessary off-site improvements if the location and traffic generation of a proposed development will result in congestion on major streets or failure to meet LOS D during peak periods or if it creates safety hazards."

As conceded by the commenter, the Draft EIR explained the basis of the City's consistency determination. The City, as Lead Agency, determined the appropriate scope of CEQA review, in consultation with its expert transportation consultant, with respect to the project's potential to substantially increase hazards due to a geometric design feature or incompatible uses, as well as its potential to result in inadequate emergency access. Contrary to the commenter's assertions, CEQA does not require a separate and distinct "project-specific safety hazard analysis" nor does CEQA mandate the inclusion of specific exhibits with respect to this topic. The City's expert transportation consultant, in consultation with the City's transportation engineer and planning staff, conducted a robust transportation study, including queueing and LOS analyses, which addressed all CEQA significance thresholds, including the one referenced by the comment.

Consistent with the City's adopted traffic impact analysis guidelines, a collision analysis was conducted as part of the transportation study. The project proposes typical intersection and roadway improvements consistent with the City's applicable street standards and, as explained in detail in the transportation study and Section 3.14, Transportation, the project would not substantially increase hazards due to a geometric design feature or incompatible uses. The transportation study identifies driveways that are proposed to accommodate truck turning movements. All improvements would be constructed "to the satisfaction of the City Engineer," per applicable State/local design standards/requirements, and would be designed to accommodate appropriate vehicle types. The project would also require fire approvals for the emergency access and emergency vehicle maneuvers throughout the project site prior to issuance of any building permits, which would be considered in light of applicable Fire and Building Code standards and requirements, among others.

As conceded by the commenter, the transportation analysis within the Draft EIR states in relevant part provides:

> "A sight distance analysis for each project driveway was conducted to determine whether outbound vehicles would have adequate sight distance to observe conflicting traffic along the intersecting public roadways. Intersection sight distance for the project driveways were evaluated following methodology outlined by the City of Visalia Design and Improvement Standard SD-3, which is based on guidance outlined by the American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highway and Street, 7th Edition. The proposed project would be required to satisfy the required sight lines and clear zone requirements for all project driveways, to ensure roadway hazards are minimized."

The transportation study was not incorporated by reference, but instead was attached as an appendix to the Draft EIR and the analytical basis and conclusions set forth therein were described in Section 3.14, Transportation, of the Draft EIR for purposes of disclosure to the public, interested organizations and the decision-makers.

There is no roadway curvature or unusual circumstances near the access driveways that indicate sight distance constraints might occur. As part of the final site design for each individual specific development proposal that is pursued under the project, intersection sight distance assessment would be performed during the design of the street improvements by the civil engineer to confirm compliance with all applicable standards and requirements, and would include considerations of landscaping, street lighting, utilities and all other potential sight obstructions. The project's Civil Engineer would certify/approve the visibility prior to approval of street improvement plans pursuant to the City’s adopted procedures and other standards and requirements.

The recommendations identified in Table 23, which are included in the transportation study that is attached as an appendix to the Draft EIR, are consistent with, and incorporated into, the proposed site plan as design features. As such, the recommendations are incorporated into the project itself and none of the recommendations would be mitigation for a potential adverse environmental impact.

Therefore, the Draft EIR properly concludes that the proposed project is consistent with the relevant provisions of the General Plan. This comment does not otherwise raise a substantive issue related to the content of the EIR, and no further response or change is warranted. No further response or change is warranted.

Comment GSEJA-16
The commenter states that the Draft EIR does not discuss that the project site is identified in the City’s Draft Housing Element as a vacant site available to accommodate an emergency shelter and contributing to the required capacity to accommodate the City’s homeless individuals. The commenter further suggests that the proposed project cannot be approved until and unless the City’s Housing Element is revised to remove the project site from the sites inventory for capacity to accommodate the City’s homeless individuals. The commenter purports that a revised EIR must be prepared to discuss the project site’s listing in the Draft Housing Element.

Response to GSEJA-16
The comment is noted for the record. This comment does not raise a specific concern related to the proposed project’s physical impacts on the environment or otherwise raise a substantive issue related to the content of the EIR, and no further response, change or recirculation of the Draft EIR under CEQA Guidelines Section 15088.5 is warranted. Nonetheless, for informational purposes, the following is noted. The project site is designated under the General Plan Land Use Element as Industrial and Light Industrial, and the proposed uses are consistent with these land use designations. It is noted that the Housing Element Table 41 identifies vacant parcels where homeless shelters can be developed by right. However, the City’s identification of parcels where emergency shelters can be developed by right does not mandate that those areas to be reserved for such shelters, be developed as such or preclude the sites from being developed with other appropriate uses as permitted by the relevant General Plan and zoning designations. Although the project site is

identified as a potential location for an emergency shelter, it is not identified as a housing opportunity. Accordingly, as noted above, the commenter's assertions are based on a mistaken understanding of legal requirements under State Housing Element Law and do not raise credible CEQA issues. The City adopted its Housing Element in December 2023; thereafter, the City submitted it to the California Department of Housing and Community Development (HCD) for review. Since this time, the City has continued to work with HCD to respond to its comments, as reflected in the revised Housing Element Update (August 2024). Consistent with Housing Element Program 5.2 Homeless Shelter Program, the City continues to work with experienced public and non-profit agencies to seek out opportunities to provide permanent, transitional, or emergency housing. Moreover, the Housing Element identified more sites than needed to accommodate emergency shelter needs. As noted in the Housing Element, the nine vacant/underutilized parcels identified in Table 41 could conservatively provide almost double the capacity to accommodate the City's homeless individuals. Accordingly, contrary to the commenter's assertion, the City may appropriately approve one or more of those sites for other uses without requiring a revision of the Housing Element. This commenter does not otherwise raise a substantive issue related to the content of the EIR, nor provides evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA and no further response or change is warranted.

Comment GSEJA-17

The commenter states that the EIR does not provide a consistency analysis with the Tulare County Association of Governments (TCAG) 2018 RTP/SCS. The commenter suggests that the proposed project is inconsistent with Goal 10 to improve air quality through congestion management, coordination of land use, housing and transportation system, and provision of alternative modes of transportation and incentives that reduce VMT, which inconsistency is based on "errors in modeling, modeling without supporting evidence," and the determination that the project will have significant and unavoidable cumulatively considerable impacts to Air Quality. The commenter further asserts that the Draft EIR relies upon flawed reasoning because the Draft EIR states that the proposed project would implement mitigation measures that reduce air quality emissions to the greatest extent feasible, which the commenter purports is erroneous and misleading.

Response to GSEJA-17

Contrary to the commenter's assertion, the Draft EIR includes a detailed discussion of the TCAG 2018 RTP/SCS, and consistency with Goal 10 (among others) specifically, in Impact LAND-2. The commenter does not provide substantial evidence regarding any significant environmental impact requiring a revision of the Draft EIR. Nor does the comment identify a specific inconsistency with a mandatory provision in the 2018 RTP/SCS or Goal 10. It is important to note that Goal 10 is a broadly-framed goal that is part of a larger, regional policy document that seeks to provide, from a regional perspective, opportunities to coordinate land use, housing and the transportation system—based on localities' growth projections. The notion that a specific development proposal that is identified to have significant air quality or GHG impacts that cannot be fully mitigated constitutes an improper inconsistency that automatically equates to a significant impact under CEQA is not supported by the law. The 2018 RTP/SCS does not govern local land use decisions; the City, in its discretion, has designated the project site for Industrial and Light Industrial uses, which are reflected in the City's land use vision and the population and employment projections relied upon in the 2018 RTP/SCS. See Section 3.11, Land Use and Planning, for additional discussion in this regard.

In reviewing CEQA documents, courts generally recognize that plan goals and consistency therewith, in particular, are designed to provide policy guidance rather than to mandate specific regulatory requirements. See, e.g., *Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 378. Moreover, courts have consistently held that lead agencies have particularly broad discretion in determining a project's consistency with such goals. See, e.g., *North Coast Rivers Alliance v. Marin Mun. Water Dist.* (2013) 216 Cal.App.4th 614, 632; *Pfeiffer v. City of Sunnyvale* (2011) 200 Cal.App.4th 1552, 1563. Accordingly, the City may determine that the proposed project is consistent with a goal to improve air quality when it approves projects that mitigate impacts to the fullest extent feasible, even if the project-specific environmental impacts remain significant. See also Response to GSEJA-12.

The Draft EIR robustly and appropriately modeled and analyzed air quality emissions in accordance with all applicable guidance and pursuant to the requirements of CEQA. It was found that the proposed project would have a significant and unavoidable impact with regard to air quality even with the implementation of feasible mitigation. Goal 10 of the 2018 RTP/SCS aims to improve air quality through congestion management, coordination of land use, housing and transportation system, provision of alternative modes of transportation, and provision of incentives that reduce VMT. The proposed project would implement MM AIR-2a through MM AIR-2h, which would require the use and/or inclusion of Tier IV or equivalent construction equipment, super compliant architectural coating, electric or zero-emission service equipment, EV charging infrastructure, vegetative barrier, and good faith consideration of a potential Voluntary Emission Reduction Agreement (VERA) with the SJVAPCD. Moreover, MM TRANS-10a and MM TRANS-10b facilitate the use of alternative modes of transportation. Furthermore, the project would be consistent with the General Plan land use vision and the City's approach to growth, which focuses on ensuring that growth occurs in a compact and concentric fashion through the implementation of the General Plan's phased growth strategy. See also Response to CDOVC-2.

As such, although the proposed project would result in significant and unavoidable impacts with regard to air quality, the proposed project would reflect anti-sprawl policies consistent with the City's land use vision, implement all feasible mitigation and would further the underlying goals of the 2018 RTP/SCS.

As such and as further detailed in the Draft EIR, there is substantial evidence in the record to support the City's determination that the proposed project would be consistent with the 2018 RTP/SCS. This comment does not otherwise raise a substantive issue related to the content of the EIR, nor does it provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA and no further response or change is warranted.

Comment GSEJA-18
The commenter states that Table 3.11-1, Local Agency Formation Commission (LAFCo) Consistency Analysis, of the Draft EIR is not accurate with regard to the statutory requirements for annexation. The Draft EIR found that the proposed project would be consistent with all transportation policies relevant to the proposed project, but the commenter purports that the proposed project is not consistent with the RTP/SCS or the General Plan. Therefore, the commenter states that the EIR must

be revised to include a finding of significance due to inconsistency with LAFCo statutory requirements regarding annexation.

Response to CSEJA-18
The commenter does not provide any substantial evidence to support the claim of inconsistency with LAFCo policies. The Draft EIR provides a detailed and thoughtful basis for a consistency determination, which is within the purview of the City based on substantial evidence in the record.

Please see Responses to GSEJA-10 through GSEJA-17. As discussed in the Draft EIR, the proposed project would be consistent with relevant provisions of the RTP/SCS and the General Plan. Additionally, as explained further in Response to GSEJA-12, it is important to note that inconsistency with a plan or policy by itself is not an environmental impact. See *Orinda Ass'n v. Board of Supervisors* (1986) 182 Cal.App.3d 1145. Many potential inconsistencies are more appropriately characterized as legal issues related to planning and policy considerations, not a physical impact on the environment. See *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170.

Contrary to the commenter's assertion, Section 3.11, Land Use and Planning, of the Draft EIR contains a detailed consistency analysis with all relevant LAFCo annexation policies, which constitutes substantial evidence in support of a consistency determination. This comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment GSEJA-19
The commenter briefly summarizes the findings in the Draft EIR regarding the outcome of the VMT analysis and states that the Draft EIR does not provide adequate evidence to support the conclusion that MM TRANS-10a and MM TRANS-10b would reduce VMT to below the significance threshold. Additionally, the commenter suggests that the MM TRANS-10a and MM TRANS-10b are unenforceable mitigation in violation of CEQA Guidelines Section 21081.6(b) and that the Draft EIR does not provide an accurate, quantified calculation of the reduced VMT as a result of these mitigation measures. The commenter further states that the data inputs utilized for modeling must be provided to the public, while the output sheets are blurry and illegible. Finally, the commenter suggests that the proposed VMT mitigations must be paired with other strategies to reduce VMT effectively.

Response to GSEJA-19
The comment is noted for the record. The Draft EIR contains a thoughtful, accurate analysis of the project's potential VMT impacts, which discloses a small, albeit significant impact under the applicable threshold, of 1.54 percent. The mitigation measures proposed by the project are based on the latest available guidelines published by CAPCOA in December 2021, taking into account the nature and location of the proposed uses. The CAPCOA guidelines include calculation methods that were developed from various studies and research conducted throughout the State and nation. The mitigation measure to provide End-of-Trip Bicycle Facilities that is proposed would be sufficient to mitigate the impacts generated by the project, particularly when combined with the construction of adjacent planned bicycle facilities to be installed as part of the City's CIP improvements on Riggin Avenue.

The quantified calculation of the percent reduction resulting from this mitigation measure is included below. The mitigation measure to expand the bike network would provide further reductions to the project's VMT impacts but is not necessary to meet the required reduction. The quantification of this measure is not included since this measure is required to connect to future path that is to be constructed by other projects.

Employee Trip Reduction Measures: Provide End-of-Trip Bicycle Facilities (T-10)

This measure will install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers. The provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions.

ID	Variable	Value	Unit
	Constants, Assumptions, and Available Defaults		
B	Bike mode adjustment factor	4.86	Unitless
C	Existing bicycle trip length for all trips in region	2.3	Miles
D	Existing vehicle trip length for all trips in region	10.3	Miles
E	Existing bicycle mode share for work trips in region	1.60%	%
F	Existing vehicle mode share for work trips in region	90.1%	%

$$\text{Formula} = \frac{C \times (E - (B \times E))}{D \times F}$$

VMT Reduction: -1.53%

Sources:

[1] Buehler, R. 2012. Determinants of bicycle commuting in the Washington, DC region: The role bicycle parking, cyclist showers, and free car parking at work. Transportation Research Part D, 17, 525–531. Available: http://www.pedbikeinfo.org/cms/downloads/DeterminantsofBicycleCommuting.pdf
[2] Federal Highway Administration (FHWA). 2017a. National Household Travel Survey–2017 Table Designer. Travel Day PT by TRPTRANS by HH_CBSA. Available: https://nhts.ornl.gov/
[3] Federal Highway Administration (FHWA). 2017b. National Household Travel Survey–2017 Table Designer. Workers by WRKTRANS by HH_CBSA. Available: https://nhts.ornl.gov/

All descriptions and methods from California Air Pollution Control Officers Association's *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Default parameters for the calculations were derived using the average of Southern and*

The Lead Agency reminds the commenter that CEQA requires neither scientific certainty nor exhaustiveness but rather adequacy, completeness, and a good faith effort at full disclosure in light of what is reasonably feasible. See, e.g., *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 544 ("CEQA requires an EIR to reflect a good faith effort at full disclosure; it does not mandate perfection, nor does it require an analysis to be exhaustive."). This information adds clarity to the Draft EIR and does not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment GSEJA-20

The commenter states that it is not possible to ensure that MM TRANS-10a and MM TRANS-10b would result in reduced VMT and be implemented continuously throughout the life of the project and maintain a VMT reduction to less than significant levels at all times. The commenter further suggests that MM TRANS-10b is not feasible as mitigation because it is subject to "contractability and approval" by California Water Service (Cal Water). Therefore, the commenter states that the Draft EIR be revised to find a significant and unavoidable VMT impact.

Response to GSEJA-20

The mitigation measures were selected specifically for the City's ability to confirm these features are implemented as part of the site plan design and street improvements. The City does not currently support the majority of on-site TDM measures (ride sharing, cash-out programs, on-site commute programs, etc.) but is supportive of the measures selected because of the ability to verify with aerial imagery. Moreover, the appropriateness of TDM measures also takes into appropriate account the nature and location of the subject project and related considerations. Finally, the commenter is mistaken to the extent it assumes that TDM measures and related reductions are defined and calculated based on assumptions that they would be implemented by all potential users continuously throughout the life of the subject project. To the contrary, the appropriateness and effectiveness of TDM measures take into account reasonable assumptions as to overall usage, etc., as noted below.

The guidelines and reduction calculations are based on the latest CAPCOA Handbook. As indicated in the CAPCOA guidelines, the end-of-trip facilities are recommended to be installed at a size proportional to the number of commuting bicyclists and regularly maintained. This measure is included as part of the proposed project's infrastructure costs and related ongoing obligations and would be maintained regularly along with other facilities within the parking area. As stated in the CAPCOA guidelines, the efficacy of mitigation measures that are based on employer-based programs may vary highly and depend on individual employers. Since the proposed measure is infrastructure based and embedded within the project's infrastructure, the efficacy of this measure can be anticipated to be consistent throughout the life of the project as long as the facilities are maintained.

Moreover, a mitigation measure requiring coordination with Cal Water to implement bike lanes is appropriate when these approvals are subject to performance standards such as those typically found in Cal Water's rules and standards. *Gentry v. City of Murrieta* (1995) 36 CA4th 1359, 1395. See Sections 6.55, 14.15.

Comment GSEJA-21
The commenter makes a generalized assertion that the Draft EIR has underreported the quantity of VMT generated by the proposed project operations. The commenter notes that the operational nature of industrial/warehouse uses involves high rates of truck/trailer/delivery van VMT due to traveling from large import hubs to regional distribution centers to smaller industrial parks and then to their final delivery destinations. The comment asserts that once employees arrive at work at the proposed project, they will conduct their jobs by driving delivery vans across the region as part of the daily operations as a warehouse, which will drastically increase project generated VMT. The project's truck/trailer and delivery van activity is unable to utilize public transit or active transportation and it is misleading to the public and decision-makers to exclude this activity from VMT analysis. The project's actual VMT generated by all aspects of project operation is not consistent with the significance threshold and legislative intent of SB 743 to reduce GHG emissions by reducing VMT. The comment concludes by stating that a revised EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity.

Response to *GSEJA-21*
See Response to GSEJA-20.

The commenter asserts that the Draft EIR has underreported the quantity VMT generated by the proposed project operations that includes all truck/trailer and delivery van activity. As a preliminary matter, the commenter does not provide any evidence beyond mere speculation that project VMT was underestimated in the Draft EIR.

Contrary to the commenter's assertion, the Draft EIR accurately reported the VMT results for the proposed project. The VMT analysis adhered to the metrics and threshold adopted in the City of Visalia VMT Thresholds and Implementation Guidelines, which are based on the OPR. CEQA Guidelines Section 15064.3 establishes VMT as the most appropriate measure of transportation impacts. However, OPR guidelines exclude truck traffic from consideration in calculating project VMT. Section 15064.3, subdivision (a) of the CEQA Guidelines, states, "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." OPR further clarified in their 2018 Technical Advisory that "automobile" refers to on-road passenger vehicles, particularly cars and light trucks. Consistent with OPR guidance, the City adopted VMT thresholds of significance that only considers the commute-based efficiency metric, 'VMT per Employee that accounts for passenger vehicles.' This widely adopted threshold aligns with OPR guidelines. All trip types and vehicle types are typically included in the VMT analysis for a customer-based land use project where the VMT evaluation metric would be net change in total regional VMT. The total absolute VMT is generally assessed for retail-based land uses, where all trip types and vehicle types are considered. If this project had been evaluated based on the net change in absolute VMT as the comment suggests, it would likely result in a net decrease in regional VMT, as these projects, as is the case here, are strategically located near delivery points, thereby reducing trip lengths by providing additional regional warehouses. CEQA VMT analysis is intended to consider how far the project's vehicle trips are estimated to travel rather than how many additional trips the project is adding. Therefore, only trips associated with employee commute trips were considered for the purposes of evaluating VMT per Employee metric. Based on the foregoing and as further discussed and disclosed in the Draft EIR and related TIA, the project's VMT analysis complies with CEQA's requirements. Therefore, no change is warranted, and no further response is necessary.

Comment GSEJA-22
The commenter states that the Draft EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access. The commenter reiterates the basis for this position as asserted in Comment GSEJA-15, as well as repeating its concerns about a lack of purported exhibits depicting the available truck turning radius at the intersection of the project driveways and adjacent streets as well as the on-site turning radius available for trucks maneuvering throughout the site. The commenter concludes that a revised EIR must be prepared to include the sight distance analysis for review, analysis, and comment by the public and decision-makers.

Response to *GSEJA-22*
See Response to GSEJA-15. This comment does not provide evidence that the project would pose unacceptable risks to the traveling public or otherwise raise a substantive issue related to the content of the EIR. The commenter does not contradict or contradict the determination made in the Draft EIR of a less than significant impact. This comment does not raise a specific concern related to the proposed project's physical impacts on the environment or otherwise raise a substantive issue related to the content of the EIR, and no further response, change or recirculation of the Draft EIR under CEQA Guidelines Section 15088.5.is warranted.

No further response or change is warranted.

Comment GSEJA-23
The commenter reiterates the assertion made in Comment GSEJA-15; it states that Appendix I Table 23: Summary of Access Recommendations, which provides recommendations to the site plan and off-site street areas to related project traffic queueing and safety, are not included as mitigation measures in the Draft EIR. For this reason, the commenter concludes that they are not required to be completed by the proposed project and outstanding project traffic queueing and safety issues exists, and the EIR must be revised to include a finding of significance as it has not provided meaningful evidence to support the conclusion that the proposed project would result in less than significant impacts under Impact TRANS-3.

Response to *GSEJA-23*
See Response to GSEJA-15.

As noted above, the transportation study identifies driveways that are proposed to accommodate truck turning movements. All improvements would be constructed "to the satisfaction of the City Engineer," per applicable State/local design standards/requirements, and would be designed to accommodate appropriate vehicle types. The commenter does not provide evidence that the project would pose unacceptable risks to humans or contradict the determination made in the Draft EIR of a less than significant impact. This comment does not raise a specific concern related to the proposed project's physical impacts on the environment or otherwise raise a substantive issue related to the content of the EIR, and no further response, change or recirculation of the Draft EIR under CEQA Guidelines Section 15088.5.is warranted.

Comment GSEJA-24
The commenter states that the Draft EIR does not address the proposed project's annexation requirements in the population and housing analysis because annexation of the project site into the City's boundaries would remove an existing obstacle that prevents growth within the City. As such, the commenter states that the proposed project would contribute toward the development thresholds that unlock development in the Tier II and Tier III UDB of the General Plan. The commenter asserts that the Draft EIR must be revised to include a finding of significance for this impact.

Response to *GSEJA-24*
The commenter does not provide substantial evidence regarding any significant environmental impact that has not already been disclosed in the Draft EIR. The applicable threshold of significance with regard to population and housing focuses on the question whether a project would result in substantial unplanned population growth such that new housing would be required, which would in turn, trigger the need for the construction of such housing that would result in environmental effects.

The Draft EIR contains a robust discussion of the project's consistency with various annexation requirements and policies as well as addressing potential population and housing related growth-inducing impacts. (See Section 3.11, Land Use and Planning, Section 5.2, Growth-Inducing Impacts.) As detailed therein, given the size of the available workforce and the current unemployment numbers in the City and County and the anticipated length of construction phases, there is no evidence that the proposed project would necessitate the construction of more housing units than anticipated as a result of employment opportunities associated with the proposed project.

In terms of potential growth-inducing impacts, the Draft EIR contains a thoughtful review in this regard (see, e.g., Chapter 5, Other CEQA Considerations, 5.2, Growth-Inducing Impacts). Among other things, the Draft EIR disclosed the anticipated employees to be generated by the project, based on the conversion of Institute of Transportation Engineering (ITE) trip generation for building size and employee. The ITE is an international professional association of transportation professionals including transportation engineers, transportation planners, consultants, educators, technologists, and researchers. The ITE Trip Generation Manual is the most commonly used data source for the purpose of estimating trip and employee generation because it is based on a robust set of land use, employee, and trip data. Furthermore, the proposed project involves multiple types of land use including an industrial park, two drive-through restaurants, a convenience store, an RV and a self storage facility, gas station, and a car wash. The ITE manual contains trip and employee generation for these specific uses, whereas the General Plan utilizes a broad assumption of 1,000 jobs per square-foot for all industrial uses.[4] Therefore, the ITE manual is a more appropriate source to estimate employment generation.

It is reasonable to assume, given the nature of the local employment population combined with the nature of the project, that employment needs generated by the proposed project would primarily be able to be filled primarily by employees who live within the City and nearby unincorporated areas in the County. As such and as further addressed in the analysis in the Draft EIR, although increased industrial growth may occur, it would not result in unanticipated growth that would lead to the need for unplanned housing.

Regarding assumptions with respect to employment generation and potential growth-inducing impacts, as described in Chapter 5, Other CEQA Considerations, the City had an unemployment rate of 4.2 percent in 2022, indicating the presence of approximately 6,005 unemployed workers. As approximately 22.5 percent of the City's workforce works in industry sectors that the proposed project would occupy, it is reasonable to conclude there are at least 1,352 eligible workers in the City who could fill a portion of the jobs that are expected to result from the proposed project. Furthermore, Tulare County currently has an unemployment rate of 9.7 percent, or 20,800 people of the working population. There are a total of approximately 140,091 workers who both live in Tulare County and commute to work within the County. Given the foregoing plus the nature of the proposed project, it is reasonable to assume that a number of unemployed county residents living near the City of Visalia could accept a job working at one of the proposed project businesses, and would commute to the City to work.

Nonetheless, additional employees could potentially transfer into the area as a result of the proposed project, resulting in population growth. However, the General Plan contemplated a certain amount of population growth, projecting that its population would grow from 125,000 people in 2014 to 210,000 people by 2030, which corresponds to an average annual growth rate of 2.6 percent. It is notable that the City's actual population growth has been slower than previously

[4] City of Visalia. General Plan - Introduction. Website: https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30473. Accessed August 29, 2024.

anticipated in the General Plan. According to the United States Census Bureau, the City had a population of 143,966 in 2022. Employment in the City was projected to increase by 39 percent between 2010 and 2030, with a total of 25,520 new jobs projected during this time frame. Therefore, any population growth caused by increased employment opportunities provided by the proposed project would be within the planned growth anticipated in the General Plan. To the extent people transfer into the City and vicinity to fill the positions provided by the proposed project, it is reasonable to conclude that any such increase in potential housing demand could be readily absorbed by the local housing inventory and/or the pending and approved residential projects in the City and the surrounding area. As of this writing, the current housing vacancy rate in the City is 3.9 percent, and the County vacancy rate is 5.7 percent. Thus, the proposed project would not result in a significant, unplanned change to the population of the City or alter the location, distribution, density, or growth rate of the anticipated population planned for the City.

Furthermore, contrary to the commenter's assertion, the contemplated annexation is entirely consistent with and helps to implement the General Plan land use vision and the City's approach to growth, which focuses on ensuring that it occurs in a compact and concentric fashion through the implementation of the General Plan's phased growth strategy. See Response to CDOC-2. This helps to ensure the logical extension of City boundaries in a planned fashion consistent with the General Plan's population and employment projections.

As such, the Draft EIR adequately and accurately describes potential environmental effects associated with annexation, construction workers, and the construction and operation of the proposed project. This comment does not raise a substantive issue related to the content of the EIR, and no further response, change or recirculation of the Draft EIR under CEQA Guidelines Section 15088.5.is warranted.

Comment GSEJA-25
The commenter states that the projected number of employees does not represent the best available data as local data is available in the General Plan. The commenter further states that the General Plan includes the rate of one employee for every 750 square feet of light industrial building area. The commenter then suggests that the proposed project would generate approximately 4,961 employees based on this generation rate; the commenter then seeks to combine the employment generation with two other projects the commenter suggests are improperly piecemealed, which would generate a total of 7,068 employees. The commenter asserts that these three projects would create 2,071 new jobs, which represents 73 percent of the City's industrial land use job buildout because the General Plan indicates the creation of 9,670 jobs from industrial land uses between 2010 and 2030. Furthermore, the commenter describes that the cumulative analysis of the proposed project be revised because approved projects and projects under review would exceed the General Plan buildout scenarios.

The commenter further claims that the Draft EIR uses uncertain, misleading language with regard to population and employment generation. The commenter also states that the Draft EIR relies upon Census data to improperly conclude that 22.5 percent of the City's active workforce is employed within this sector, translating to 22.5 percent of the unemployed workforce being available for work in these sectors. Additionally, the commenter contends that the Draft EIR does not provide information on whether the unemployed workforce is interested or qualified for work in construction and/or industrial sectors, and concludes that the Draft EIR needs to be revised and recirculated to address these issues.

Response to *GSEJA-25*
See Response to GSEJA-24.

The comments are noted for the record. However, the commenter does not provide substantial evidence regarding any significant environmental impact that is not already disclosed in the Draft EIR. An EIR must be prepared with a sufficient degree of analysis to provide decision-makers with information needed to make an intelligent decision concerning the project's environmental effects (e.g., CEQA Guidelines § 15151.) An EIR must contain facts and analysis, not just an agency's mere conclusions or opinions. However, the data used in an EIR need not be exact. When precise data are not readily available, an EIR may rely on informed estimates. As the California Supreme Court has emphasized, an EIR need not achieve "technical perfection or scientific certainty." *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515. Instead, CEQA requires "adequacy, completeness, and a good faith effort at full disclosure." CEQA Guidelines § 15003(i). The appropriate degree of specificity and analysis a given issue warrants depends on "the nature of the project and the rule of reason." *North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 679; *see also* CEQA Guidelines Section 15151 ("An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible.").

The Lead Agency exercised its discretion in selecting the appropriate methodology and assumptions to be utilized when determining the number of employees that would be generated by the project for purposes of the CEQA review. Specifically, the Draft EIR estimated the employee amount at buildout based on the conversion of ITE trip generation rates for building size and employee, consistent with the project transportation study. The ITE Trip Generation Manual is regularly updated and was most recently updated in 2022. In contrast, the General Plan's estimates for industrial employment generation are from 2011. Although the General Plan is more specific to the project site, the more regularly updated ITE trip generation rates associated employee estimates would likely be more accurate. Furthermore, the ITE trip generation rates take into account the different land uses that would occur on the project site, including warehouse and flex buildings, mini-storage/RV parking, fast-food restaurants, convenience markets, and the car wash facility, while the General Plan only has general estimates for Light Industrial and Industrial. Accordingly, the Draft EIR's assumptions and methodologies used to determine employee generation are supported by substantial evidence.

This comment does not raise a specific concern related to the proposed project's physical impacts on the environment or otherwise raise a substantive issue related to the content of the EIR, and no further response, change or recirculation of the Draft EIR under CEQA Guidelines Section 15088.5 is warranted.

The comment's suggestion that the Draft EIR was required to speculate as to whether referenced unemployed individuals have the qualifications and/or interest to seek project employment is inaccurate under the law.

The environmental effects (i.e., air pollutant and greenhouse emissions associated with VMT for worker trips) associated with employees have been accounted for throughout the Draft EIR, for example within the project's air quality and greenhouse gas emission analyses. In this case, because the exact locations of where workers trips would originate are too speculative to identify precisely, the analyses assumed a default worker trip. This default is a reasonable estimate of the average trip.

With respect to the commenter's erroneous attempt to combine the project's employment generation with other unrelated, separate projects based on an allegation of improper segmentation, see Response to GSEJA-2.

Based on the foregoing and as further detailed in the Draft EIR, the CEQA evaluation adequately analyzed the project's impacts (both individual and cumulative) as required under CEQA, and no revisions to the Draft EIR are warranted.

Comment GSEJA-26
The commenter appears to reiterate statements made in Comment GSEJA-24 regarding the Draft EIR not addressing the proposed project's annexation requirements in the population and housing analysis because annexation of the project site into the City's boundaries would remove an existing obstacle that prevents growth within the City. The commenter also repeats statements made in Comment GSEJA-25 regarding the way in which the projected number of employees does not represent the best available data as local data is available in the General Plan.

Response to *GSEJA-26*
See Responses to GSEJA-24 and GSEJA-25.

The commenter requests a number of additional studies and analyses (construction worker employment analysis, job buildout analysis). These studies are not required by CEQA. "CEQA does not require a lead agency to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project. The fact that additional studies might be helpful does not mean that they are required." *Ass'n of Irritated Residents v. Cty. of Madera*, (2003) 107 Cal.App 4th 1383, 1396, 133 Cal. Rptr. 2d 718. Consequently, CEQA does not contain a blanket requirement that agencies conduct exhaustive studies to cover every potentiality.

The OPR Technical Advisory on Evaluating Transportation Impact in CEQA (December 2018) does not identify construction worker VMT as an issue that needs to be evaluated in a project VMT analysis. Additionally, the ultimate end-users and construction schedule are unknown, making a construction worker employment analysis too speculative at this point.

This comment does not raise a specific concern related to the proposed project's physical impacts on the environment or otherwise raise a substantive issue related to the content of the EIR, and no further response, change or recirculation of the Draft EIR under CEQA Guidelines Section 15088.5.is warranted.

Comment GSEJA-27

The commenter purports to set forth various legal principles under CEQA related to alternatives analysis, including stating that the EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the proposed project. The commenter asserts that the alternatives chosen for analysis include the CEQA required "No Project" alternative and only two others. The commenter states that the EIR does not evaluate a reasonable range of alternatives beyond the No Project Alternative, and fails to include an alternative that meets the project objectives and also eliminates all of the project's significant and unavoidable impacts.

Response to GSEJA-27

The commenter does not provide substantial evidence regarding any significant environmental impact that has not already been disclosed in the Draft EIR. A general response to a general comment is sufficient (CEQA Guidelines §15088(c)). This comment provides a general objection to the alternatives discussion; however, it does not propose any specific alternatives for evaluation.

The Draft EIR reflects CEQA's requirements with respect to an adequate alternatives analysis. As explained therein, in accordance with CEQA Guidelines Section 15126.6, the Draft EIR contained a comparative impact assessment of alternatives to the proposed project. The purpose of this analysis was to provide decision-makers, other interested organizations, and the public with a reasonable number of potentially feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects.

Important considerations for this alternatives analysis are noted below pursuant to CEQA Guidelines Section 15126.6.

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
  - Failure to meet most of the basic project objectives;
  - Infeasibility; or
  - Inability to avoid significant environmental effects.

Adhering to the foregoing parameters, the analysis briefly discussed another alternative initially considered and then rejected from further consideration. It then evaluated three different alternatives in Chapter 6, Alternatives to the proposed project. Although none of the alternatives eliminated all of the project's significant and unavoidable impacts, there is no requirement for such an alternative in CEQA. Contrary to the comment's assertions, CEQA merely requires a reasonable range of potentially feasible alternatives be considered, taking into account whether each alternative would reduce significant impacts and also whether it would meet most of the project objectives and be feasible to implement. All of the foregoing considerations are relevant and were taken into appropriate account in the Draft EIR's alternatives analysis. The comments have been noted for the record and revisions to the Draft EIR are not necessary.

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May 28, 2024

VIA EMAIL

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Re: Comment on Draft Environmental Impact Report
Shirk & Riggin Industrial Project
State Clearinghouse Number 2022080658

To Principal Planner Smith:

This comment is submitted on behalf of Eddie Torres, Francisco Nunez, Laborers International Union of North America, Local 294, and its members living and working in and around Visalia, California (collectively "LIUNA") regarding the Draft Environmental Impact Report (State Clearinghouse No. 2022080658) ("DEIR") prepared for Shirk & Riggin Industrial Park Project.

LIUNA is concerned that the DEIR fails to comply with the California Environmental Quality Act, Public Resources Code 21000 *et seq*., ("CEQA") by: (1) failing to adopt feasible mitigation measures for significant and unavoidable impacts identified in the DEIR; (2) failing to adopt the environmentally superior Reduced Footprint Alternative; (3) failing to account for all cumulative projects in vicinity of the Project; (4) failing to adequately disclose and mitigate impacts to sensitive biological resources; (5) failing to adequately analyze the Project's impacts on energy; and (6) failing to provide substantial evidence that the Project will not result in significant increased cancer risk to nearby residents.

1

LIUNA's review of the Project and DEIR was assisted by expert ecologist Dr. Shawn Smallwood, Ph.D., and air quality experts Matt Hagemann, P.G., C.Hg., and Paul E. Rosenfeld, Ph.D., of Soil/Water/Air Protection Enterprise ("SWAPE"). Dr. Smallwood's comment and CV are attached hereto as **Exhibit A**. SWAPE's comment and the CVs of Dr. Rosenfeld and Mr. Hagemann are attached hereto as **Exhibit B**.

LIUNA requests that the DEIR be revised and recirculated to address the issues raised in this comment. 1 CONT

PROJECT DESCRIPTION

Seefried Industrial Properties, Inc. has proposed to develop the Project, a mixed-use industrial park and related improvements and infrastructure on an approximately 284-acre site. The Project site (APNs 077-840-004, 077-840-005, and 077-840-006) is generally bound by Riggin Avenue to the south, Shirk Street to the east, Kelsey Street to the west, and Modoc Ditch to the north in the City of Visalia.

Agricultural uses have existed on the Project site since 1937, and several structures previously existed in the central, northern, and southeastern portions of the site to support these agricultural uses. Several of the structures in the northern and southeastern portion were demolished by 1969, and the central portion of the site was graded. The graded land in the central portion of the site was redeveloped for agricultural use by 1984. The remaining structures were demolished, and the project site was developed in its current configuration by 1984. The Project site currently consists of an actively managed almond orchard, established around 2018. A pump house and small structures are adjacent to the detention basin.

The Project would discontinue the existing agricultural uses at the site, demolish remaining on-site structures that serve agricultural uses, and develop a mixed-use industrial park totaling approximately 3,720,149 square feet of light industrial and flex industrial uses along with car/trailer parking areas and related on- and off-site improvements. The Project development summary is as follows: 2

Light Industrial Building No. 1	+/- 786,240 square feet
Light Industrial Building No. 2	+/- 1,078,440 square feet
Light Industrial Building No. 3	+/- 144,300 square feet
Light Industrial Building No. 4	+/- 173,160 square feet
Light Industrial Building No. 5	+/- 156,140 square feet
Light Industrial Building No. 6	+/- 109,890 square feet
Light Industrial Building No. 7	+/- 513,240 square feet
Light Industrial Building No. 8	+/- 513,240 square feet
Flex Industrial Buildings	+/- 84,480 square feet
Self-Storage/Recreation Vehicle (RV) Buildings	+/- 144,800 square feet
Convenience Store and Gas Station	+/- 6,922 square feet
Drive-through Restaurant No. 1	+/- 2,368 square feet
Drive-through Restaurant No. 2	+/- 2,368 square feet
Car Wash	+/- 4,560 square feet
Water Quality Management Basins	+/- 31.3 acres
Landscaping	+/- 30.68 acres

Access would be provided via three access points along Shirk Street, three access points along Riggin Avenue, and three access points along Kelsey Street. Clancy Street south of the project site would be extended to replace the existing private road and would traverse south to north of the site. There would also be other compatible non-industrial uses, consisting of self-storage/RV parking, a convenience store, a car wash, a gas station, and two drive-through restaurants. 2 CONT

LEGAL STANDARD

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR (except in certain limited circumstances). (See, e.g., Pub. Resources Code, § 21100.) The EIR is the very heart of CEQA. (*Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 109.)

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 CCR § 15002(a)(1).) "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.) The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (*Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs*. (2001) 91 Cal.App.4th 1344, 1354 (*Berkeley Jets*); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.) 3

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and all feasible mitigation measures. (14 CCR § 15002(a)(2) and (3); see also *Berkeley Jets*, 91 Cal.App.4th at 1354; *Citizens of Goleta Valley,* 52 Cal.3d at 564.) The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." (14 CCR § 15002(a)(2).) If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." (Pub. Res. Code, § 21081; 14 CCR § 15092(b)(2)(A) and (B).)

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A 'clearly inadequate or unsupported study is entitled to no judicial deference.'" (*Berkeley Jets*, 91 Cal.App.4th at 1355 [quoting, *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal. 3d 376, 391, 409, n. 12.) "A prejudicial abuse of discretion occurs 'if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process.'" (*Berkeley Jets*, 91 Cal.App.4th at 1355.)

An EIR must "include[] sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues the proposed project raises." (*Sierra Club v. Cty. of Fresno* (2018) 6 Cal.5th 502, 510.) "Whether or not the alleged inadequacy is the complete omission of a required discussion or a patently inadequate one-paragraph discussion devoid of analysis, the reviewing court must decide whether the EIR serves its purpose as an informational document." (*Id*. at 516.) "The determination whether a discussion is sufficient is not solely a matter of discerning whether there is substantial evidence to support the agency's factual conclusions." (*Id*.) As the Court emphasized:

> [W]hether a description of an environmental impact is insufficient because it lacks analysis or omits the magnitude of the impact is not a substantial evidence question. A conclusory discussion of an environmental impact that an EIR deems significant can be determined by a court to be inadequate as an informational document without reference to substantial evidence.

(*Id.* at 514.) 3 CONT

In general, mitigation measures must be designed to minimize, reduce or avoid an identified environmental impact or to rectify or compensate for that impact. (14 CCR § 15370.) Where several mitigation measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. (14 CCR § 15126.4(a)(1)(B).) A lead agency may not make the required CEQA findings unless the administrative record clearly shows that all uncertainties regarding the mitigation of significant environmental impacts have been resolved.

When a significant environmental issue is raised in comments on the draft EIR, the response must be detailed and must provide a reasoned, good faith analysis. (14 CCR §15088(c); *Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal.5th 918, 940; *Covington v. Great Basin Unified Air Pollution Control Dist*. (2019) 43 Cal.App.5th 867, 878 [rejecting adequacy of response that did not explain why suggested mitigation was infeasible].) The failure of a lead agency to respond to comments raising significant environmental issues before approving a project frustrates CEQA's informational purpose and may render the EIR legally inadequate. (See *Flanders Found. v. City of Carmel-by-the-Sea* (2012) 202 Cal.App.4th 603, 615; *Rural Landowners Ass'n v. City Council* (1983) 143 Cal.App.3d 1013, 1020.)

DISCUSSION

I. The DEIR Fails to Include All Feasible Mitigation Measures for the Project's Significant and Unavoidable Air Quality Impacts.

CEQA prohibits a lead agency from approving a project with significant environmental effects if there are feasible mitigation measures or alternatives that can substantially lessen or avoid those effects. (Pub. Res. Code §21002; *Mountain Lion Found. v. Fish & Game Comm'n* (1997) 16 Cal.4th 105, 134; *Laurel Heights*, 47 Cal.3d at 403 ["The chief goal of CEQA is mitigation or avoidance of environmental harm"].) CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." (PRC §21061.1; 14 CCR §15364.) "The core of an EIR is the mitigation and alternatives sections." (*Citizens of Goleta Valley*, 52 Cal.3d at 564.) When an EIR concludes that a project will have significant impacts, the lead agency has two duties: to meaningfully consider feasible mitigation measures and alternatives, and to identify mitigation measures and alternatives rejected as infeasible. (See *Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1353.)

The lead agency may not approve a project with significant impacts unless it makes one or more of three findings: 4

(1) that changes or alternations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment;

(2) that the agency making the findings lacks jurisdiction to make the change, but that another agency does have such authority, and either has made or can and should make, the change; and/or

(3) that specific economic, legal, social, technological, or other considerations … make infeasible the mitigation measures or project alternatives identified in the EIR.

(Pub. Res. Code §21081(a); 14 CCR §15091(a).).)

When a comment suggests "better ways to avoid or mitigate the significant environmental impacts" (14 CCR §§15088(c), 15204(a)), the lead agency must respond to the comment by either explaining why further consideration of the alternative or mitigation was rejected or by providing an evaluation of the alternative. (*Marin Mun. Water Dist. v. KG Land Cal. Corp*. (1991) 235 Cal.App.3d 1652, 1666; *Cal. Native Plant Soc'y v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 992 (*CNPS*).) "'[A]n adequate EIR must respond to specific suggestions for mitigating a significant environmental impact unless the suggested mitigation is facially infeasible.' [citation omitted] 'While the response need not be exhaustive, it should evince good faith and a reasoned analysis.'" (*CNPS*, 177 Cal.App.4th at 992 [citing *L.A. Unified School Dist. v. City of L.A*. (1997) 58 Cal.App.4th 1019, 1029; see also, *Citizens for Quality*

Growth v. City of Mount Shasta (1988) 198 Cal.App.3d 433, 442, fn. 8.)

The DEIR identifies several significant and unavoidable impacts to air quality:

- Project-level impact related to implementation of the applicable air quality plan
- Project-level impact related to cumulatively considerable net increase of nitrogen oxide (NOx) during construction, and ROG, NOx, and PM10 during operation
- Cumulatively significant air quality impacts during construction and operation

(DEIR, p. 5-2 to 5-3.) Due to these significant and unavoidable air quality impacts identified in the DEIR, the FEIR must require all feasible mitigation measures to reduce air quality impacts. (Pub. Res. Code §21081(a); 14 CCR §15091(a.).)

LIUNA's air quality experts, SWAPE, concluded that "additional feasible mitigation is available" and that "[b]y failing to discuss the implementation of potential mitigation measures and failing to include additional available measures, the DEIR does not make a good-faith effort at full disclosure." (Ex. B, pp. 2-3.) SWAPE identified the following feasible mitigation measures to reduce the Project's significant and unavoidable air quality impacts, which should be added to the FEIR:

- **ROG Emissions.** The DEIR only mitigates ROG emissions from architectural coatings during construction (MM-AIR-2b). This mitigation must be expanded in the FEIR to cover architectural coatings during operation as well. 4 CONT

- **NOx and PM10 Emissions**. The following are feasible mitigation measures to reduce NOx and PM10 emissions:
  - Minimize unnecessary vehicular and machinery activities.
  - Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet. Daily logging of the operating hours of the equipment should also be required.
  - Ensure that all construction equipment is properly tuned and maintained.
  - Minimize idling time to 5 minutes or beyond regulatory requirements —saves fuel and reduces emissions.
  - Projects located within the South Coast Air Basin should consider applying for South Coast AQMD "SOON" funds which provides funds to applicable fleets for the purchase of commercially available, low-emission heavy-duty engines to

> achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles.

(Ex. B, pp. 6-7.)

These feasible mitigation measures must be included in a revised DEIR to determine whether the impacts remain significant and unavoidable. If the Project's impacts remain significant and unavoidable after imposing all feasible mitigation measures, including but not limited to those listed above, only then can the City adopt a statement of overriding consideration approving the Project based on "specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment." (Pub. Res. Code § 21081(b).) 4 CONT

II. The City Should Adopt the Environmentally Superior Reduced-Footprint Alternative.

Where a project is found to have significant and unavoidable impacts, CEQA requires the adoption of a feasible alternative that meets most of the project objectives but results in fewer significant impacts. (*Citizens of Goleta Valley v. Bd. of Supervisors* (1988) 197 Cal.App.3d 1167, 1180-81; see also *Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322) A "feasible" alternative is one that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (Pub. Res. Code § 21061.1; 14 CCR § 15364.)

Here, the DEIR concluded that the Project will have a significant and unavoidable impacts on: (1) Project-level and cumulative conversion of Prime Farmland; (2) Project-level impact related to implementation of the applicable Air Quality Plan: (3) Project-level impact related to cumulatively considerable net increase of nitrogen oxide (NOx) during construction, and reactive organic gas (ROG), NOx, and particulate matter 10 micrometers or less in diameter (PM10) during operation; (4) Cumulative significant air quality impact; (5) Project-level impact related to mobile source operational noise; and (6) Cumulative noise impact. (DEIR, pp. 6-1 to 6-3.) 5

The DEIR included an analysis of a Reduced Footprint Alternative, under which the eastern half of the Project site, approximately 142 acres, would be preserved and would remain in agricultural production, and half of the total warehouse and industrial park land uses would be developed. (DEIR, p. 6-3.) The DEIR concluded that the Reduced Footprint Alternative would eliminate the Project's significant construction emissions of NOx and CO and eliminate the Project's significant construction-related health risk. (DEIR, p. 6-13.) The DEIR also concluded that the Reduced Footprint Alternative "would protect some of the project site's farmland and reduce potential impacts to biological resources, including Swainson's hawk, special-status wildlife such as San Joaquin kit fox, active bird's nests, and roosting bats, because fewer habitats could be disturbed" (DEIR, p. 6-14) and would reduce noise impacts from construction and operation of the Project. (DEIR, pp. 6-17 to 6-18.)

In order to approve the Project with its significant and unavoidable impacts, the City must make a finding that "[s]pecific economic, legal, social, technological, or other considerations . . . ***make infeasible*** the . . . .project alternatives identified in the final EIR." (Pub. Res. Code, § 21081(a)(3); 14 CCR § 15091(a)(3).) Here, the City has not—and cannot—support a finding that the Reduced Footprint Alternative is infeasible. Instead, the DEIR states that "because the project site would not be built out to its full potential, [the Reduced Footprint Alternative" would only partially meet the project objectives of maximizing development of the site to generate increased revenue and economic development, and creating employment-generating businesses to reduce commuting and improve the jobs-to-housing balance." (DEIR p. 6-20.)

However, the Reduced Footprint Alternative may not be rejected as *infeasible* simply because it might not be as fiscally sound or generate as much employment as the Project. (*Citizens of Goleta Valley v. Bd. of Supervisors* (1988) 197 Cal.App.3d 1167, 1180-81.) Rather, "[w]hat is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project." (*Id.*; see also *Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322.) Therefore, the fact that the Reduced Footprint Alternative does not satisfy the stated objectives for increased revenue and employment does not render the alternative *infeasible*. 5 CONT

Because the City lacks the foundation to reject the Reduced Footprint Alternative as infeasible, the City will not be able to make the required findings for the Project's significant and unavoidable impacts. (See Pub. Res. Code, § 21081(a); 14 CCR § 15091(a).) The DEIR should be revised and recirculated to either adopt the Reduced Footprint Alternative or adequately justify why the Reduced Footprint Alternative is infeasible.

III. The DEIR Fails to Adequately Disclose and Mitigate the Project's Impacts on Biological Resources.

An EIR must discuss a cumulative impact if the project's incremental effect combined with the effects of other projects is "cumulatively considerable." (14 CCR § 15130(a).) This determination is based on an assessment of the project's incremental effects "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (14 CCR § 15065(a)(3); *Banning Ranch Conservancy v City of Newport Beach* (2012) 211 CA4th 1209, 1228; see also 14 CCR § 15355(b).) 6

The CEQA Guidelines set forth two methods for satisfying the cumulative impacts analysis requirement: the list-of-projects approach and the summary-of-projections approach. Under either method, the EIR must summarize the expected environmental effects of the project and related projects, provide a reasonable analysis of cumulative impacts, and examine reasonable options for mitigating or avoiding the project's contribution to any significant cumulative impacts. (14 CCR §§ 15130(b)(1)(A)-(B), 15130(b)(4)-(5).)

The DEIR relies on the list-of-projects approach and provides a list of eight (8) projects considered for the Project's cumulative impacts. (DEIR, p. 3-5.) However, the list is incomplete. The DEIR fails to include the industrial development proposed just south of the Project site at the southwest corner of North Shirk Street and West Riggin Avenue (APNs 077-200-057, -058, -059, -060). In April 2024, the City released a mitigated negative declaration for the "Shirk and Riggin Annexation Project," which contemplates the development of four approximately 245,025 square-foot warehouse and/or combined office/warehouse type buildings. Because this development is reasonably foreseeable, it must be included in the list of cumulative projects and included in any analysis of the Project's cumulative impacts. 6 CONT

IV. The DEIR Fails to Adequately Disclose and Mitigate the Project's Impacts on Biological Resources.

LIUNA retained expert ecologist Dr. Shawn Smallwood, Ph.D., to review the EIR, including the Biological Resources Assessment prepared by the applicant's consultant FirstCarbon Solutions ("Biological Report"), and to provide an analysis of the Project's impacts on biological resources. Dr. Smallwood's comment and CV are attached hereto as **Exhibit A**.

As discussed below, Dr. Smallwood found that: (1) the Biological Report underestimates the diversity of species on site and the Project's likely impacts to those species; (2) the Biological Report fails to provide substantial evidence of the Project's impacts; (3) the DEIR fails to assess or mitigate the Project's impacts to species due to habitat loss, movement impacts, traffic mortality, and cumulative impacts; and (4) the EIR's mitigation measures are inadequate to reduce the Project's impacts to less-than-significant levels.

A. The DEIR underestimates the diversity of species using the Project site. 7

Dr. Smallwood conducted 2 site visits to evaluate the Project site's value for biological resources. The first site visit took place on February 22, 2022 for ~2.5 hours. The second site visit took place April 25, 2024 for ~3.25 hours on March 16, 2024. (Ex. A, p. 1.) During the site visits, Dr. Smallwood detected 50 species of vertebrate wildlife, 12 of which are special-status bird species, including Swainson's hawk, Red-tailed hawk, Northern harrier, Merlin, Oak titmouse, and Lawrence's goldfinch. (*Id*., pp. 15-16.)

Dr. Smallwood calculated that more thorough site visits would reveal an even greater diversity of wildlife. (Ex. A, pp. 17-19.) Given more time to survey the site, Dr. Smallwood predicts that he would have detected 137 species of vertebrate wildlife, 33 of which would be special-status species. (*Id*., p. 19.)

Dr. Smallwood's observations stand in stark contrast to the DEIR's assertion that Swainson's hawk is "the only special-status species with a realistic potential to occur on-site."

(DEIR, p. 6.4-6.) Dr. Smallwood's observations confirm that additional special-status species not only have "realistic potential" to occur but also have actually been observed on site by Dr. Smallwood. The DEIR should be revised and recirculated to correct for this glaring omission in the DEIR's description of the environmental baseline for the Project's impacts on biological resources. 7 CONT

B. The DEIR's Biological Report cannot be relied upon to determine the Project's impacts to biological resources.

Dr. Smallwood identified numerous deficiencies in the EIR's Biological Report. (Ex. A, pp. 19-27.) As a result of the Biological Report's deficiencies, the DEIR's conclusion that impacts to biological resources will be less than significant is unsupported by substantial evidence. The biological resources section of the DEIR should be revised and recirculated for public review and comment in order to fully disclose the extent of the Project's impacts.

First, Dr. Smallwood found that the site survey conducted for the Biological Report in 2022 was inadequate. (Ex. A, pp. 20.) The Biological Report's site survey was conducted on July 5, 2022 for six hours starting at 10 a.m. (*Id.*) As Dr. Smallwood explains,

> The start time of this survey was late in the day for July. By about this time of day in July, most wildlife are in search of or have already found refuge from the heat, such as a burrow, tree cavity or the shade of a tree. By 10:00 hours, wildlife detections during reconnaissance surveys are in steep decline . . . In other words, the FirstCarbon Solutions biologist ***could not have surveyed at a slower time of day*** for wildlife. 8

(*Id.* [emphasis added].) The fact that the Biological Report's survey detected only 18% of the species observed on-site by Dr. Smallwood is likely due to the Biological Report's survey occurring at such a slow time for wildlife. (*Id.*) Based on the shortcomings of the Biological Report's survey, Dr. Smallwood concludes that it "fails to adequately represent the wildlife community of the project site, and gives a false impression that few species occur there." (*Id.*)

Second, to the extent that the Biological Report attempts to downplay the importance of detecting species during the survey by focusing on general site conditions and potentially suitable habitat, Dr. Smallwood notes that the Biological Report fails to explain how it conducted habitat assessments. (Ex. A, pp. 21-22.) As Dr. Smallwood explains,

> It is unclear how "general site conditions" were assessed, such as by a rating system or some other method. No explanation is provided. It is also unclear how FirstCarbon Solutions (2023) identified potentially suitable habitat . . . . No gradient of habitat suitability is described, nor is there any evidence of a check-off sheet between known habitat associations and what the biologist saw on the site.

(*Id.* at p. 22.) Without such information, detection surveys remain "the most effective means to assess habitat," which, as discussed above, were lacking here (*Id.*) As a result, the DEIR fails to disclose the Project's impacts to biological resources because the Biological Report "lacks the means to assess whether the site supports habitat to most of the species that likely occur at the site." (*Id.*)

Third, the Biological Report improperly screened out many special-status species from further consideration in the DEIR by improperly using information from the California Natural Diversity Data Base ("CNDDB") and US Fish and Wildlife Service's Information for Planning and Consultation database ("IPaC"). (Ex. A, p. 22-23.) As Dr. Smallwood explains, "CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community." (*Id.*) Based on his own site visits and database reviews, Dr. Smallwood identified 93 special-status species that warrant further discussion in the EIR, where the DEIR identified only 12 special-status species. (*Id.* at p. 23.) As a result, "[t]he site is far richer in special-status species than is characterized in the DEIR." (*Id.*) 8 CONT

For the above reasons, the Biological Resources section of the DEIR should be revised and recirculated in order to disclose the full extent of the Project's impacts and to ensure that those impacts are mitigated to the extent feasible.

C. The DEIR fails to disclose and mitigate the Project's biological impacts due to habitat loss, wildlife movement, window collisions, and road mortality.

Dr. Smallwood found that the DEIR failed to adequately discuss numerous significant impacts on biological resources, including habitat loss, movement impacts, traffic mortality, and cumulative impacts. (Ex. A, pp. 28-33.) By failing to disclose and mitigate these impacts, the DEIR cannot be relied upon to conclude that impacts will be less than significant. As such, the DEIR should be revised and recirculated to account for the impacts discussed below.

1. <u>Habitat loss.</u> 9

Dr. Smallwood found that the EIR failed to fully account for the impacts to wildlife from the loss of habitat, which "not only results in the immediate numerical decline of wildlife, but it also results in permanent loss of productive capacity." (Ex. A, pp. 28-29.) Dr. Smallwood calculates that Project-related loss of habitat for bird nests would result in 21,645 birds born per year, which "would be very substantial and highly significant." (*Id.* at p. 29.) The EIR does not disclose, discuss, or mitigate this impact. The DEIR should be revised and recirculated to adequately disclose and mitigate the impacts to biological resources from habitat loss.

2. <u>Wildlife Movement</u> 10

Dr. Smallwood found that the DEIR applied improper standards to conclude that the Project's impacts on wildlife movement would not be significant. (Ex. A, pp. 29.) According to the DEIR, impacts to wildlife movement would not be significant because "[t]he project site does not function as a wildlife corridor." (*Id.*) However, the DEIR's reasoning is "based on a flawed premise that the only way that a project can interfere with wildlife movement in the region is by disrupting a wildlife movement corridor." (*Id.*) Under CEQA, a project can have an impact on wildlife movement "***regardless of whether the movement is channeled by a corridor***." (*Id.* [emphasis added].) Even if the Project site is not a wildlife corridor, the impacts can still be significant because, as Dr. Smallwood explains,

> [A] site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of anthropogenic uses, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project, due to its elimination of 284 acres of trees. would cut wildlife off from one of the last remaining stopover and staging opportunities in the project area, forcing volant wildlife to travel even farther between remaining stopover sites.

10 CONT

(*Id.*) Dr. Smallwood concludes, "This impact would be significant, and as the project is currently proposed, it would be unmitigated." (*Id.*) The DEIR should be revised and recirculated to adequately disclose and mitigate the impacts to biological resources from impacts to wildlife movement. .

3. Traffic Mortality

The DEIR fails to address the impacts to wildlife from collisions with traffic generated by the Project. (Ex. A, pp. 30-32.) According to the DEIR, the Project would result in 17,099,450 annual vehicle miles traveled ("VMT"). (*Id.* at p. 32.) Based on the Project's annual VMT, Dr. Smallwood calculates that traffic from the Project will kill at least 9,370 vertebrate animals per year. (*Id.*) Especially due to the special-status species likely to occur at or near the Project, these collisions represent a significant impact to wildlife that must be addressed, discussed, and mitigated in a revised DEIR. 11

4. Cumulative Impacts

The DEIR's conclusion that that the Project will not result in significant cumulative impacts to biological resources is flawed for three reasons: (1) the conclusion is based on the flawed premise that special-status species are not present on the Project site; (2) the conclusion is based on the flawed premise that the site is unimportant to wildlife movement; and (3) the conclusion is based on the flawed premise that compliance with existing laws and regulations will result in less-than-significant impacts. (Ex. A, pp. 32-33.) Based on these shortcomings, the DEIR's conclusion that cumulative impacts will be less than significant is not supported by substantial evidence. 12

D. The DEIR's proposed mitigation measures for biological resources are inadequate.

The DEIR contains six (6) mitigation measures, which rely on pre-construction surveys for Swainson's hawk (MM BIO-1a, MM BIO-1b), burrowing owl (MM BIO-1c), Crotch's bumblebee, San Joaquin kit fox, western burrowing owl, and American badger (MM BIO-1d), active bird nests (MM BIO-1e), and roosting bats (MM BIO-1f). (DEIR, pp. 3.4-22 to 3.4-28.) However, pre-construction surveys alone are unlikely to adequately mitigate the Project's impacts to those species. (Ex. A, pp. 33-34.)

Pre-construction surveys must be informed by adequate protocol-level detection surveys to determine "whether and how many of each of the special-status species occurs at the project site." (Ex. A, p. 33.) Whereas protocol-level detection surveys often require multiple surveys on a determined schedule, "preconstruction surveys typically consist of a single survey with no guidance on time of day or specific methodology." (*Id.*) Dr. Smallwood concludes that "[t]he DEIR misleadingly proposes preconstruction surveys for burrowing owls, San Joaquin kit fox, nesting birds, and roosting bats as if they are protocol-level detection surveys, which they are not." (*Id.*)

12 CONT

For the pre-construction surveys for bird and bat nests (MM BIO-1e and MM BIO-1f), Dr. Smallwood notes that the "preconstruction surveys [would] achieve very little in terms of avoidance and minimization of impacts" due to the ability of many species to hide their nests and the need for multiple surveys throughout the breeding season for accurate results. (Ex. A, p. 33-34.) As a result, "[i]t is unrealistic to imply – as the DEIR does – that preconstruction nest surveys would salvage more than a very small fraction of the nearly 5,000 nests on the 284-acre project site." (*Id.* at p. 33.)

Dr. Smallwood suggests several feasible mitigation measures that should be required for the Project to reduce the Project's impacts to biological resources. (Ex. A, pp. 34-35.) These mitigation measures include: (1) requiring protocol-level detection surveys for special-status species prior to pre-construction surveys; (2) preserving open space as close to the Project site as possible as compensatory mitigation for habitat loss; and (3) compensatory mitigation payments to wildlife research and rehabilitation. (*Id.*) These mitigation measures proposed by Dr. Smallwood should be required for the Project in addition to the measures included in the DEIR.

V. The DEIR Fails to Adequately Analyze the Project's Potentially Significant Energy Impacts.

13

CEQA provides that all Projects must include measures "to reduce the wasteful, inefficient, and unnecessary consumption of energy." (Pub. Res. Code § 21100(b)(3).) Energy conservation under CEQA is defined as the "wise and efficient use of energy." (CEQA Guidelines, app. F, § I.) The "wise and efficient use of energy" is achieved by "(1) decreasing overall per capita energy consumption, (2) decreasing reliance on fossil fuels such as coal, natural gas and oil, and (3) increasing reliance on renewable energy resources." (*Id.*)

The DEIR concludes that the Project will not result in a wasteful, inefficient, or unnecessary consumption of energy resources based, in part, on the fact that the Project will be required to comply the California Building Energy Efficiency Standards (Cal. Code Regs., tit. 24, part 6) ("Title 24") by providing *either* rooftop solar panels *or* "buildings to structurally accommodate future installation of a rooftop solar system." (DEIR, p. 3.6-11.) However, mere compliance with Title 24 does not constitute an adequate analysis of energy. (*League to Save Lake Tahoe Mountain Area Preservation Foundation v. County of Placer* (2022) 75 Cal.App.5th 63, 165 (*League to Save Lake Tahoe*); *Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal. App. 4th 256, 264-65; *California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, 209-13.) Even where an agency has concluded that a project's impacts on energy resources would be less than significant, a lead agency must still analyze implementation of all "renewable energy options that might have been available or appropriate for [a] project." (*League to Save Lake Tahoe*, *supra*, 75 Cal.App.5th at 166-67.) A lead agency's failure to consider implementation of all feasible renewable energy proposals raised during the environmental review process constitutes a "prejudicial error." (*Id*. at 168.) 13 CONT

The Project should be required to include the actual installation of rooftop solar panels to ensure that the Project does not result in a wasteful, inefficient, or unnecessary consumption of energy resources. The DEIR cannot rely on the more relaxed standards of Title 24 that allow for the rooftops to only be solar-ready without requiring the actual installation of solar panels. A requirement for the installation of rooftop solar panels should be included in a revised DEIR. Installation of rooftop solar panels would also ensure that the Project complies with the City's Climate Action Plan. (Ex. B, p. 5.)

VI. The DEIR Fails to Provide Substantial Evidence that the Project's Health Risk Impact Will Be Less Than Significant.

Construction and operation of the Project would result in emissions of diesel particulate matter ("DPM"), a known human carcinogen. As explained in the DEIR,

> A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. 14

(DEIR, p. 3.3-3.) The DEIR contained a Health Risk Assessment ("HRA"), which concluded that the increased cancer risk from DPM emissions to nearby sensitive receptors would not exceed the Jan Joaquin Valley Air Pollution Control District significance threshold of 20 in one million. (DEIR, pp. 3.3-63 to 3.3-68; Ex. B, p. 3.)

SWAPE's review of the DEIR and Air Quality Report found that the DEIR's conclusion that the increased cancer risk would be less than significant was unable to be verified. (Ex. B, pp. 3-4.) Specifically, the DEIR and its supporting documentation do not provide the values used in the HRA for Age Sensitivity Factors ("ASF") and Fraction of Time at Home ("FAH"), both of which are used in the HRA to determine the increased cancer risk posed by the Project. (*Id.*) Without providing the ASF and FAH factors, the DEIR's conclusions cannot be verified and may underestimate the Project's impacts. (*Id.* at p. 4.) 14 CONT

CONCLUSION

The DEIR does not comply with CEQA by: (1) failing to adopt feasible mitigation measures for significant and unavoidable impacts identified in the DEIR; (2) failing to adopt the environmentally superior Reduced Footprint Alternative; (3) failing to account for all cumulative projects in vicinity of the Project; (4) failing to adequately disclose and mitigate impacts to sensitive biological resources; (5) failing to adequately analyze the Project's impacts on energy; and (6) failing to provide substantial evidence that the Project will not result in significant increased cancer risk to nearby residents. For those reasons, LIUNA requests that DEIR be revised and recirculated to address the concerns discussed above. 15

Sincerely,

Brian B. Flynn

Brian B. Flynn
Lozeau Drury LLP

EXHIBIT A

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Attn: Brandon Smith, Principal Planner
City of Visalia
315 E. Acequia Avenue
Visalia, CA 93291

15 May 2024

RE: Shirk & Riggin Industrial Park

Dear Mr. Smith,

I write to comment on the analysis of potential project impacts to wildlife that is presented in the Draft Environmental Impact Report (DEIR) prepared for the proposed Shirk and Riggin Industrial Project, which I understand would convert 284 acres of agricultural land to 3,720,149 square feet of floor space among eight industrial buildings and six flex industrial buildings along with commercial businesses. I am concerned that the characterization of the existing environmental setting is grossly deficient, and also that the impacts analysis is incomplete and inaccurate.

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached. 16

SITE VISITS

I visited the proposed project site from 06:46 to 09:11 hours on 22 February 2022, and from 16:12 to 19:27 hours on 25 April 2024, for a total 5.67 hours. Conditions were a rainy 45° F during my first visit and 75° F and clear during my second visit. Conditions for detecting wildlife were less than ideal during my first visit, as moisture covered my binocular lenses, and wildlife sought cover from the cold rain. 17

I used binoculars to scan for wildlife. During both surveys, the site was covered by almond orchards with grass and leaf-litter floors. The site includes mature olive trees, ornamental trees, and large Valley oaks (*Quercus lobata*) along with one Valley oak that grows out of Modoc Ditch and hangs over the project site (Photos 1 – 5).

Photos 1 and 2. *Views of the project site from the north (top) and south (bottom), 22 February 2022.*

17 CONT

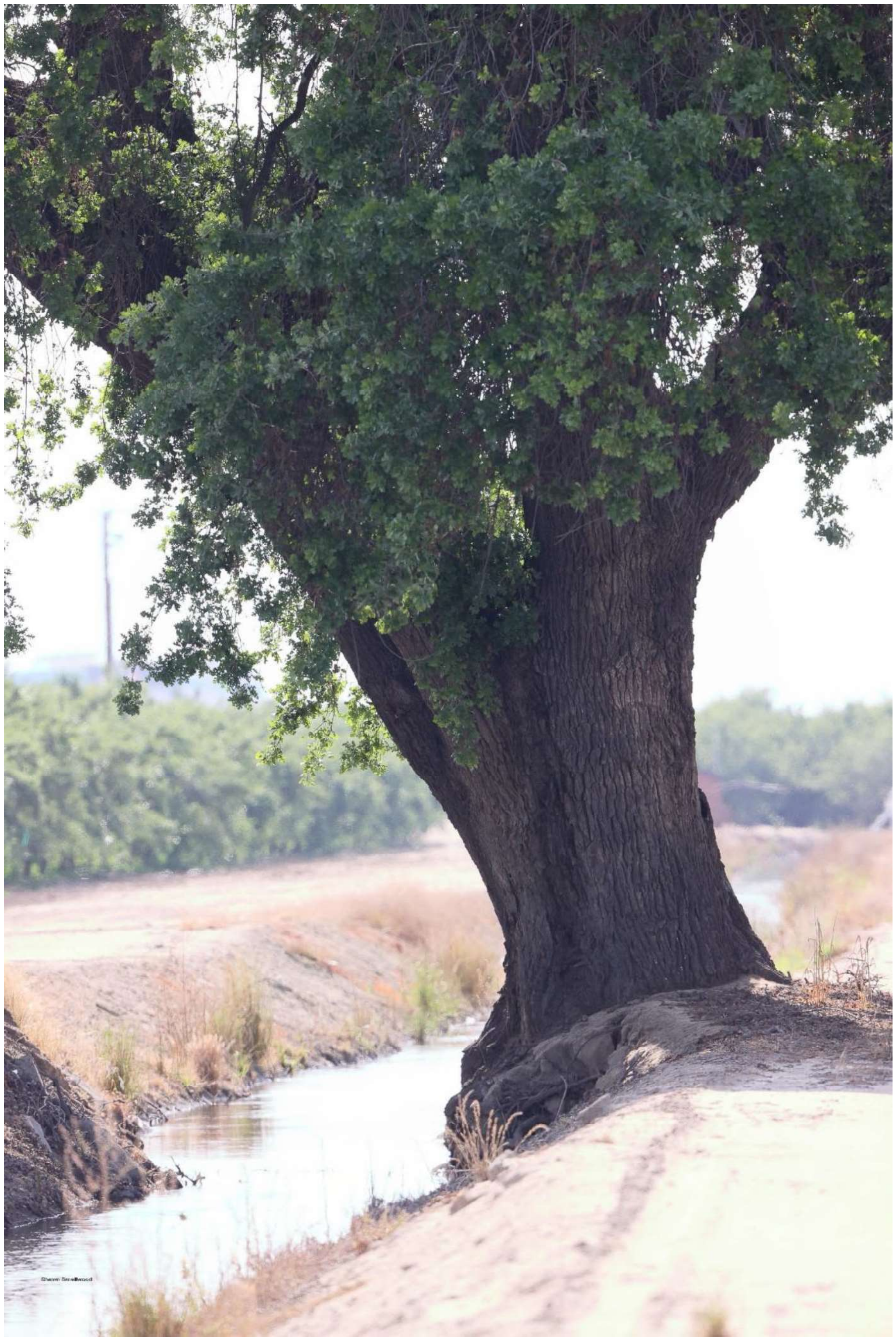
17 CONT

Photos 3 and 4. *The almond orchard serves as habitat to many birds such as the American robin in the top photo, and the Valley oak on the north side by itself supported hundreds of birds of many species including the mourning dove visible at left of the bottom photo.*

During my surveys, I saw California scrub-jays (Photo 6), red-tailed hawks, Swainson's hawk and merlin (Photos 6–8), a northern harrier (Photo 9), many California gulls (Photo 10), ruby-crowned kinglets and yellow-rumped warblers (Photos 11 and 12), American robins and Lincoln's sparrows (Photos 13 and 14), lesser and Lawrence's goldfinches (Photos 15, 16, and 26), mourning doves and white-crowned sparrows (Photos 17 and 18), savannah sparrows and house finches (Photos 19 and 20), black phoebe (Photo 21), Anna's hummingbirds and yellow-rumped warblers (Photos 22 and 23), mallards and Brewer's blackbirds (Photos 24 and 25), western fence lizards (Photo

27), long-billed curlew sign of Botta's pocket gopher (Photos 28 and 29), western kingbirds and red-winged blackbirds (Photos 20 and 31), and many other species.

Photo 5. *Valley oak growing out of Modoc Ditch, 25 April 2024.*



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CONT

The almond orchard was full of birds, but the single Valley oak growing from Modoc Ditch hosts one of the highest densities of birds I have ever encountered. There were hundreds of birds representing multiple species in that one Valley oak. That Valley oak also supported the nest of red-tailed hawks in both years of my surveys. Despite the inclement conditions during my first survey visit, I detected 29 species of vertebrate wildlife at the project site, including 6 special-status species (Table 1). However, after my second visit, my species detections from both surveys increased to 50, including 12 special-status species of wildlife (Table 1).

Photo 5. *California scrub-jay near its nest in almonds on the project site, 25 April 2024.*

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CONT

Photo 6. *One member of a breeding pair of red-tailed hawks nesting on the Valley oak along the north side of the project site, 22 February 2022.*

17 CONT

Photos 7 and 8. *Swainson's hawk foraging just south of the project site, 25 April 2024 (Left), and Merlin in flight over the almond orchard and toward the Valley oak at the north edge of the project, 22 February 2022 (right).*

Photo 9. *Northern harrier forages over the almond trees on the project site, 22 February 2022.*

Photo 10. *California gulls fly over the project site, 22 February 2022.*

17 CONT

Photos 11 and 12. *Ruby-crowned kinglet (left) and yellow-rumped warbler (right) on the Valley oak along the north side of the project site, 22 February 2022.* 17 CONT

Photos 13 and 14. *American robin on the orchard floor (left) and Lincoln's sparrow on the canal bank (right) of the project site, 22 February 2022.*

Photos 15 and 16. *Lesser goldfinch on a security fence just west of the project site (left) and Lawrence's goldfinch on an almond tree on the project site, 22 February 2022.*

17
CONT

Photos 17 and 18. *Mourning dove on a security fence just west of the project site (left) and white-crowned sparrow on the orchard floor of the project site (right), 22 February 2022.*

Photos 19 and 20. *Savannah sparrow (left) and house finch (right) on almond trees on the project site, 22 February 2022.*

17 CONT

Photo 21. *A black phoebe with a bill full of insects … or something with legs, on the project site, 25 April 2024.*

Photos 22 and 23. *Anna's hummingbird and yellow-rumped warbler on the project site, 25 April 2024.*

17
CONT

Photo 24. *Mallard on the project site, 25 April 2024.*

Photo 25. *Brewer's blackbird on Modoc Ditch, 25 April 2024.*

17
CONT

Photos 26 and 27. *Lawrence's goldfinch and western fence lizard on the project site, 25 April 2024.* 17 CONT

Photos 28 and 29. *Long-billed curlew over the project site, and soil mounds excavated by one of the many Botta's pocket gophers on the project site, 25 April 2024.*

Photos 30 and 31. *Western kingbird at the project site, and one of many nesting red-winged blackbirds in a stand of wheat adjacent to the project site, but which frequently flew into the almond on the site, 25 April 2024.*

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CONT

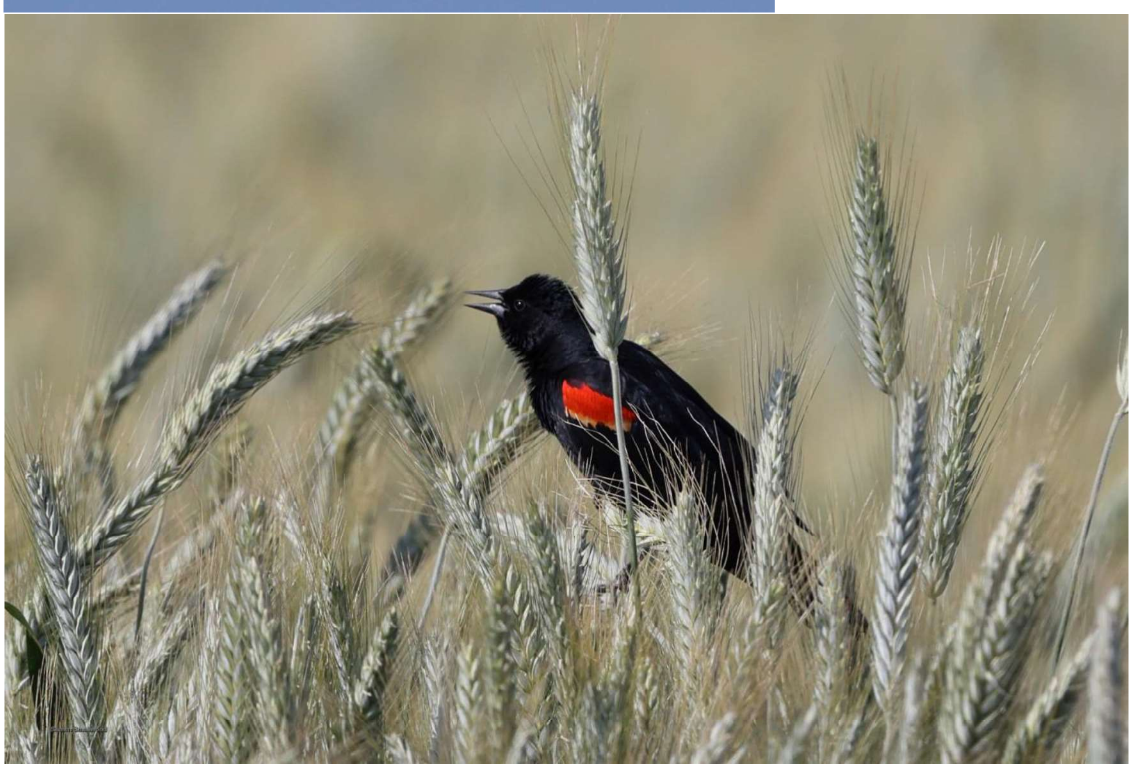

Table 1. *Wildlife species I observed on site during 3.75 hours of survey on 22* February 2022 and 3.25 hours of survey 25 April 2024.

Species	Scientific name	Status[1]	2/22/22	4/25/24	Notes
Western fence lizard	*Sceloporus occidentalis*			X	On olives and Valley oak
Western side-blotched lizard	*Uta stansburiana elegans*			X	Modoc Ditch
Bullfrog	*Lithobates catesbeianus*	Non-native		X	Modoc Ditch
Canada goose	*Branta canadensis*		X		Flyover
Mallard	*Anas platyrhynchos*		X	X	Flyby
Killdeer	*Charadrius vociferus*		X	X	
Long-billed curlew	*Numenius americanus*	TWL		X	Flyover
California gull	*Larus californicus*	BCC, TWL	X		Flyover
Mourning dove	*Zenaida macroura*		X	X	Many nesting in almonds
Rock pigeon	*Columba livia*	Non-native	X	X	
Eurasian collared-dove	*Streptopelia decaocto*	Non-native		X	
Turkey vulture	*Cathartes aura*	BOP		X	
Swainson's hawk	*Buteo swainsoni*	CT, BOP		X	Foraging south of project site
Red-tailed hawk	*Buteo jamaicensis*	BOP	X	X	Nesting on Valley oak
Northern harrier	*Circus hudsonicus*	BCC, SSC3, BOP	X		Foraged over almonds
American kestrel	*Falco sparverius*	BOP		X	
Merlin	*Falco columbarius*	TWL, BOP	X		Valley oak to almonds
Northern flicker	*Colaptes auratus*		X		Flyby
Anna's hummingbird	*Calypte anna*		X	X	Nesting in almonds in ≥2 places
Western kingbird	*Tyrannus verticalis*			X	
Black phoebe	*Sayornis nigricans*		X	X	Fed on flies on dead dog; breeding pair
Oak titmouse	*Baeolophus inornatus*	BCC	X		On Valley oak
Chestnut-backed chickadee	*Poecile rufescens*		X		Valley oak
Ruby-crowned kinglet	*Regulus calendula*		X		Valley oak
California scrub-jay	*Aphelocoma californica*		X	X	Food deliveries to nests in almonds

17
CONT

Species	Scientific name	Status[1]	2/22/22	4/25/24	Notes
American crow	*Corvus brachyrhynchos*			X	
Common raven	*Corvus corax*		X	X	
Northern mockingbird	*Mimus polyglottos*			X	Nest in almonds or olives
European starling	*Sturnus vulgaris*	Non-native		X	
American robin	*Turdus migratorius*		X	X	Many in almonds; food deliveries
Yellow-rumped warbler	*Setophaga coronata*		X	X	Valley oak
White-crowned sparrow	*Zonotrichia leucophrys*		X		Almonds
Lincoln's sparrow	*Melospiza lincolnii*		X		Almonds
Savannah sparrow	*Passerculus sandwichensis*		X		
House sparrow	*Passer domesticus*	Non-native	X	X	Valley oak
Bullock's oriole	*Icterus bullockii*			X	Valley oak and almonds
Red-winged blackbird	*Agelaius phoeniceus*		X	X	Nesters in wheat flew to almonds
Brewer's blackbird	*Euphagus cyanocephalus*			X	
Great-tailed grackle	*Quiscalus mexicanus*			X	Flew over almonds with food item
House finch	*Haemorphous mexicanus*		X	X	Nesting in oak
American goldfinch	*Spinus tristis*		X	X	Valley oak and in almonds
Lesser goldfinch	*Spinus psaltria*		X	X	
Lawrence's goldfinch	*Spinus lawrenci*	BCC	X	X	Pair in Valley oak visited almonds
American goldfinch	*Spinus tristis*			X	Valley oak and in almonds
California ground squirrel	*Otospermophilus beecheyi*			X	
Coyote	*Canis latrans*			X	Tracks
Virginia opossum	*Didelphis virginianus*	Non-native		X	Tracks
House cat	*Felis catus*	Non-native		X	Killed by auto traffic
Botta's pocket gopher	*Thomomys bottae*		X	X	Many burrow systems
California vole	*Microtus californicus*			X	

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

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CONT

I saw evidence of a high abundance and diversity of wildlife at the project site. However, I must point out that the species of wildlife I detected at the project site comprised only a sampling of the species that were present during my surveys. I fit nonlinear regression models to the cumulative number of vertebrate species detected with time into each of my surveys to predict the number of species that I would have detected with a longer survey or perhaps with additional biologists available to assist. The model I fit to data from both surveys is a logistic growth model which reaches an asymptote that corresponds with the maximum number of vertebrate wildlife species that could have been detected during the surveys. In this case, the models predict that 41 and 53 species of vertebrate wildlife were available to be detected during the morning of the first survey and the evening of the second survey, respectively, which numbered 15 more species than I actually detected in either survey (Figure 1).

$$Y_{PM} = \frac{1}{0.018867 + 0.320778(X+1)^{-0.698004}}$$

$$Y_{AM} = \frac{1}{0.024169 + 4.317185(X+1)^{-1.194187}}$$

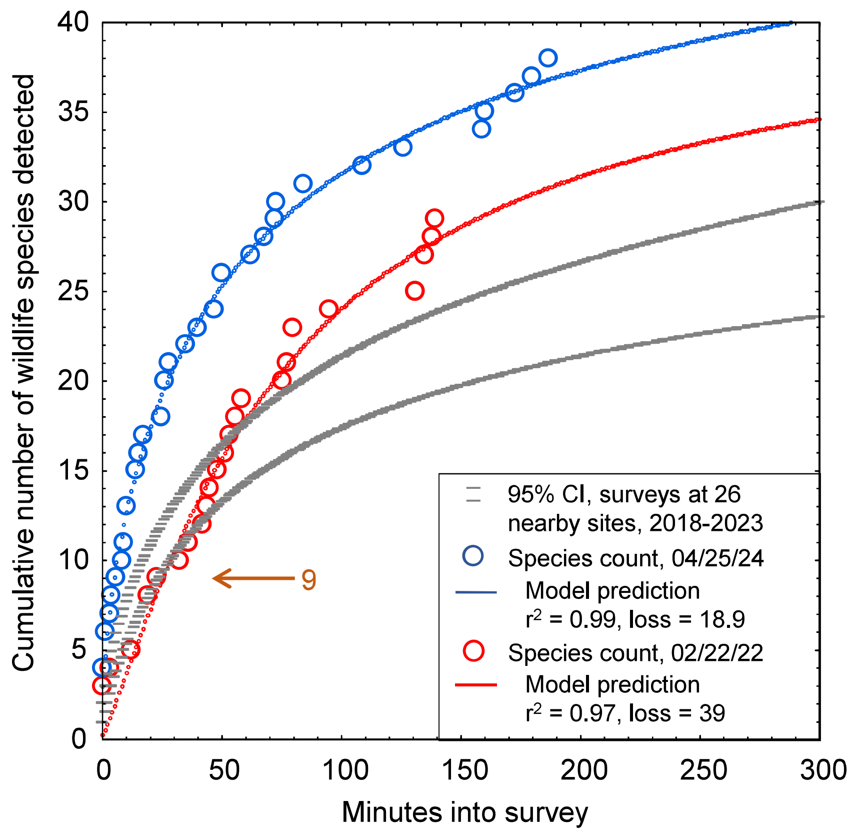


Figure 1. *Actual and predicted relationships between the number of vertebrate wildlife species detected and the elapsed survey time based on my visual-scan surveys on 22 February 2022 (red) and 25 April 2024 (blue). Note that the relationships would differ if the surveys were based on another method or during another season. The arrow corresponds with the number of species detected by FirstCarbon Solutions (2023) and points to the 5 to 18 minutes it took me to detect the same number of 9 species.*

17 CONT

I do not know the identities of the undetected species, but the patterns in my data indicate relatively high use of the project site compared to 26 surveys at other sites I have surveyed in the south Central Valley (Figure 1). Compared to models I fit to data collected from other sites in the Valley between 2019 and 2023, the data from the morning survey on the project site followed the average rate of increase of species detections until about an hour into the survey, after which time the rate exceeded the upper bound of the 95% confidence interval. The data from the evening survey immediately exceeded the upper bound of the 95% confidence interval of the rate of accumulated species detections with time into the survey (Figure 1). Importantly, however, the species that I did and did not detect on between these surveys composed only a fraction of the species that would occur at the project site over the period of a year or longer. This is because many species are seasonal in their occurrence.

At least a year's worth of surveys would be needed to more accurately report the number of vertebrate species that occur at the project site, but I only my two surveys. However, by use of an analytical bridge, a modeling effort applied to a large, robust data set from a research site can predict the number of vertebrate wildlife species that likely make use of the site over the longer term. As part of my research, I completed a much larger survey effort across 167 km^2 of annual grasslands of the Altamont Pass Wind Resource Area, where from 2015 through 2019 I performed 721 1-hour visual-scan surveys, or 721 hours of surveys, at 46 stations. I used binoculars and otherwise the methods were the same as the methods I and other consulting biologists use for surveys at proposed project sites. At each of the 46 survey stations, I tallied new species detected with each sequential survey at that station, and then related the cumulative species detected to the hours (number of surveys, as each survey lasted 1 hour) used to accumulate my counts of species detected. I used combined quadratic and simplex methods of estimation in Statistica to estimate least-squares, best-fit nonlinear models of the number of cumulative species detected regressed on hours of survey (number of surveys) at the station: $\hat{R} = \frac{1}{1/a + b \times (Hours)^c}$, where $\hat{R}$ represented cumulative species richness detected. The coefficients of determination, r^2, of the models ranged 0.88 to 1.00, with a mean of 0.97 (95% CI: 0.96, 0.98); or in other words, the models were excellent fits to the data. 17 CONT

I projected the predictions of each model to thousands of hours to find predicted asymptotes of wildlife species richness. The mean model-predicted asymptote of species richness was 57 after 11,857 hours of visual-scan surveys among the 46 stations of my research site. I also averaged model predictions of species richness at each incremental increase of number of surveys, i.e., number of hours (Figure 2). On average I would have detected 20.78 species over my first 7 hours of surveys at my research site in the Altamont Pass (7 hours to match the 7 hours I surveyed at the project site), which composed 36.5% of the predicted total number of species I would detect with a much larger survey effort at the research site. Given the example illustrated in Figure 2, the 50 species I detected after 7 hours of survey at the project site likely represented 36.5% of the species to be detected after many more visual-scan surveys over another year or longer. With many more repeat surveys through the year, I would likely detect $^{50}/_{0.365} = 137$ species of vertebrate wildlife at the site. Assuming my ratio of special-status to non-special-status species was to hold through the detections of all 137 predicted species, then continued surveys would eventually detect 33 special-status species of vertebrate wildlife.

Because my prediction of 137 species of vertebrate wildlife, including 33 special-status species of vertebrate wildlife, is derived from daytime visual-scan surveys, and would detect few nocturnal mammals such as bats, the true number of species composing the wildlife community of the site must be larger. My reconnaissance surveys demonstrate the presence of a high abundance and diversity of wildlife at the project site. These surveys serve as a starting point toward characterization of the site's wildlife community. Additional surveys should be performed, particularly nocturnal surveys, to characterize additional wildlife at the site. An inventory or a reasonable approximation of an inventory is essential for characterizing the existing environmental setting, and for serving as the baseline from which to predict project impacts to wildlife.

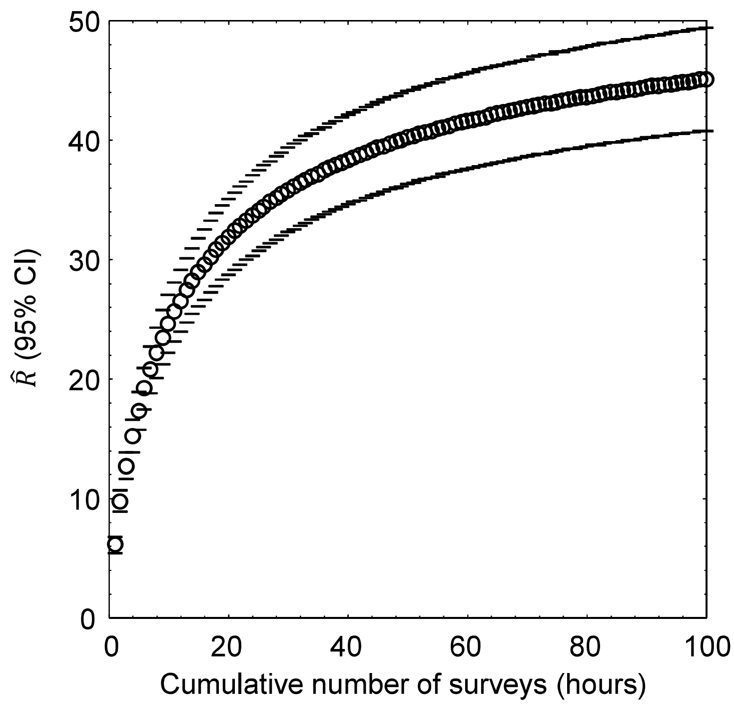


Figure 2. *Mean (95% CI) predicted wildlife species richness, $\hat{R}$, as a nonlinear function of hour-long survey increments across 46 visual-scan survey stations across the Altamont Pass Wind Resource Area, Alameda and Contra Costa Counties, 2015–2019. Note that the location of the study is largely irrelevant to the utility of the graph to the interpretation of survey outcomes at the project site. It is the pattern in the data that is relevant, because the pattern is typical of the pattern seen elsewhere.*

17 CONT

EXISTING ENVIRONMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to
accurately characterize the existing environmental setting, including the biological 18
species that use the site, their relative abundances, how they use the site, key ecological
relationships, and known and ongoing threats to those species with special status. A
reasonably accurate characterization of the environmental setting can provide the basis

for determining whether the site holds habitat value to wildlife, as well as a baseline against which to analyze potential project impacts. For these reasons, characterization of the environmental setting, including the project site's regional setting, is one of CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, these needed steps were incomplete and misleading.

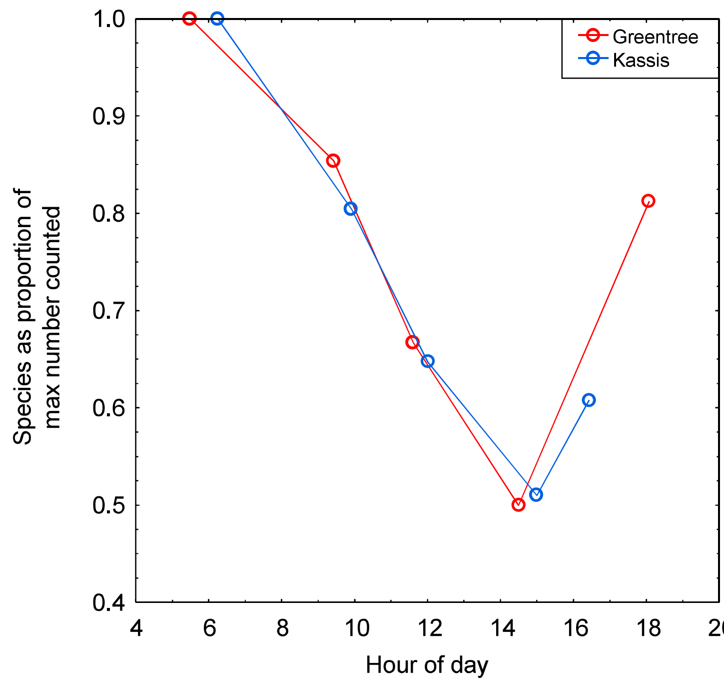
For example, referring to the Valley oak that grows out of Modoc Ditch, South Environmental (2023:18) reports, "this tree would not be impacted by project activities as no pruning is expected and the trunk and roots are on the north side of the ditch away from construction and would avoid impacts as a result." And at page 24, "The project site developments will not facilitate the need to remove or trim T1 [i.e., the Valley oak in Modoc Ditch] and the root zone will remain entirely intact." FirstCarbon Solutions (2023:46) finds that "The proposed project involves no vertical structures, soil disturbance or access road construction at this location … impacts on the valley oak would be less than significant." However, given the orientation of the lean of the Valley oak, it is hard to believe that no roots extend south of Modoc Ditch. Without roots extending south, the Valley oak would likely have fallen over many years ago. South Environmental and FirstCarbon Solutions provide no evidence that this Valley oak's roots are confined to the north side of Modoc Ditch. 18 CONT

Environmental Setting informed by Field Surveys

To CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

A biologist from FirstCarbon Solutions surveyed the project site for about six hours starting at 10:00 hours on 5 July 2022. The start time of this survey was late in the day for July. By about this time of day in July, most wildlife are in search of or have already found refuge from the heat, such as a burrow, tree cavity or the shade of a tree. By 10:00 hours, wildlife detections during reconnaissance surveys are in steep decline, and they reach their nadir toward the time when the FirstCarbon Solutions biologist completed his survey (Figure 3). In other words, the FirstCarbon Solutions biologist could not have surveyed at a slower time of day for wildlife. It is likely for this reason that even though his survey lasted nearly as long as my two surveys combined, he detected only 18% of the species that I did. But whatever the reason for the shortfall, the reconnaissance survey completed by FirstCarbon Solutions fails to adequately represent the wildlife community of the project site, and gives a false impression that few species occur there. 19

Figure 3. *Effects of time of day when reconnaissance-level survey is begun. Data were from five 2-hour-long surveys at a project site in Vacaville and at another in Rancho Cordova in May and June 2022.* (K. S. Smallwood, unpublished data)



FirstCarbon Solutions (2023) attempts to downplay the importance of wildlife species detections during a reconnaissance survey. The objective of the survey is stated, "not to exhaustively search for every potential species occurring within the project site, but rather to ascertain general site conditions and identify potentially suitable habitat areas for special-status plant and wildlife species." By its nature, a reconnaissance survey is never "exhaustive," but then what is if for, if it is not for detecting a reasonably representative sample of the wildlife community? Within the time that is reasonably feasible for a reconnaissance survey effort to be completed, the participating biologists should detect as many of the detectable species as possible. This is important because the detection of a species at a particular site is the best means of ascertaining whether the site supports habitat for the species. The confirmed presence of the species provides certainty of the presence of habitat. However, failing to detect the species leaves uncertain whether habitat is present, because wildlife populations are spatially dynamic, meaning that activity centers typically shift locations every generation of so (Taylor and Taylor 1979). At any given time, 75% of a species' habitat is typically unoccupied (vacant) because members of the species need to temporarily escape predator or parasite loads, allow forage to rest, or because young of the year naturally disperse away from natal areas to form new activity centers in unoccupied habitat. Whatever the reason(s), seemingly unoccupied habitat is still habitat and is still available to be occupied at a later date. Developing a project on "unoccupied habitat" is just as destructive to the species as developing it on occupied habitat.

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CONT

For the foregoing reasons, biologists often rely on habitat associations, which are documented occurrences, or ideally measured intensities of use (Smallwood 2002), of environmental categories such as vegetation complexes, soils, or terrain. Such habitat associations are used to assess occurrence likelihoods of the species based on how closely the existing environmental setting matches the habitat associations of the species. In assessing habitat in this manner, it is also important to err on the side of caution because wildlife habitat associations have never been perfectly characterized and surprises are therefore common.

It is unclear, however, how FirstCarbon Solutions (2023) performed its habitat assessments. It is unclear how "general site conditions" were assessed, such as by a rating system or some other method. No explanation is provided. It is also unclear how FirstCarbon Solutions (2023) identified potentially suitable habitat, which is a tautological term; after all, a site that is suitable for a species is also habitat. No gradient of habitat suitability is described, nor is there any evidence of a check-off sheet between known habitat associations and what the biologist saw on the site. Again, instead of implementing vague methods such as ascertaining site conditions and identifying areas of habitat suitability, the most effective means to assess habitat is to either detect the species or to detect associates of the species, where associates can be other species of wildlife or vegetation complexes or environmental conditions with which the species has been known to associate. 19 CONT

The 50 wildlife species I detected at the project site is only about a third of the species that I would detect over a longer term of reconnaissance surveys. I do not believe that even 50 species reasonably represent the wildlife community at the project site. FirstCarbon Solutions (2023) detected only 9 species of wildlife, or about 6% of the species I estimate to compose the local wildlife community. Except for those 9 species that were detected, FirstCarbon Solutions (2023) lacks the means to assess whether the site supports habitat to most of the species that likely occur at the site (see below).

Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths.

FirstCarbon Solutions (2023) performed a desktop review composed of reviewing the California Natural Diversity Database (CNDDB) and the US Fish and Wildlife Service's Information for Planning and Consultation (IPaC) database. No explanations are provided of how these data bases were used to determine which species warranted analysis of occurrence likelihoods on the project site. It is clear, however, that too few special-status species were analyzed for occurrence potential. Only 12 special-status species are analyzed. 20

If FirstCarbon Solutions (2023) uses CNDDB and iPaC to screen out species for analysis of occurrence potential, then this approach is flawed. CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present.*" It is my opinion that the DEIR misuses CNDDB.

CNDDB relies entirely on volunteer or permit reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to CNDDB. Furthermore, CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to CNDDB than were species assigned special status since CNDDB's inception. The lack of CNDDB records for species only recently assigned special status would have been due to insufficient time having elapsed since the assignments. And because negative findings are not reported to CNDDB, CNDDB cannot provide the basis for estimating occurrence likelihoods, either. The DEIR's analysis of special-status species occurrence likelihoods is fundamentally flawed.

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In my assessment based on database reviews and site visits, 93 special-status species of wildlife are known to occur near enough to the site to warrant analysis of occurrence potential (Table 2). Of these 93 species, 12 (13%) were recorded on or adjacent to the project site, and another 14 (15%) species have been documented within 1.5 miles of the site ('Very close'), another 21 (26%) within 1.5 and 4 miles ('Nearby'), and another 44 (47%) within 4 to 30 miles ('In region'). More than half (51%) of the species in Table 2 have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife and carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in the DEIR.

The DEIR includes occurrence likelihood analysis of only 12 special-status species, one of which (Swainson's hawk) is determined to have moderate occurrence potential and the other 11 species are determined to have no occurrence potentials (Table 2). One of these species with no chance for occurrence, according to FirstCarbon Solutions, is tricolored blackbird. However, tricolored blackbird has been reported only 1.85 miles from the project site. According to FirstCarbon Solutions, two of the species with no chance for occurrence are burrowing owl and loggerhead shrike, but burrowing owl has been seen 0.8 miles from the project site, and loggerhead shrike has been seen 0.76 miles away. These distances are within two to five minutes of flight time for any of these species, meaning that the distances are insignificant.

In light of the flaws noted above, I recommend that the DEIR be withdrawn from circulation and revised.

Table 2. *Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records (https://eBird.org, https://www.inaturalist.org) and on-site survey findings, where 'Very close' indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and 'in range' means the species' geographic range overlaps the site. Entries in bold font identify species I detected. Entries in bold font identify those species I detected.*

Common name	***Species name***	**Status[1]**	**DEIR occurrence potential**	**Data base records, Site visits**
Monarch	*Danaus plexippus*	FC		Nearby
Crotch's bumble bee	*Bombus crotchii*	CCE	None	In region
California tiger salamander	*Ambystoma californiense*	FT, CT, WL	None	In region
Western spadefoot	*Spea hammondii*	SSC	None	In region
Western pond turtle	*Emys marmorata*	SSC	None	In region
Blunt-nosed leopard lizard	*Gambelia sila*	FE, CE, CFP		In region
Northern California legless lizard	*Anniella pulchra*	SSC	None	In region
Cackling goose (Aleutian)	*Branta hutchinsii leucopareia*	WL		Nearby
Redhead	*Aythya americana*	SSC2		Nearby
Western grebe	*Aechmophorus occidentalis*	BCC		Nearby
Clark's grebe	*Aechmophorus clarkii*	BCC		Nearby
Black swift	*Cypseloides niger*	SSC3, BCC		In region
Vaux's swift	*Chaetura vauxi*	SSC2, BCC		Nearby
Costa's hummingbird	*Calypte costae*	BCC		Very close
Rufous hummingbird	*Selasphorus rufus*	BCC		Very close
Allen's hummingbird	*Selasphorus sasin*	BCC		In region
American avocet[4]	*Recurvirostra americana*	BCC		Nearby
Mountain plover	*Charadrius montanus*	SSC2, BCC		In region
Snowy plover	*Charadrius nivosus*	BCC		Nearby
Whimbrel[2]	*Numenius phaeopus*	BCC		Nearby
Long-billed curlew	*Numenius americanus*	WL		**Next to site**
Marbled godwit	*Limosa fedoa*	BCC		In region
Short-billed dowitcher	*Limnodromus griseus*	BCC		Nearby
Willet	*Tringa semipalmata*	BCC		In region
Western gull	*Larus occidentalis*	BCC		In region

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CONT

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
California gull	*Larus californicus*	BCC, WL		**On site**
Black tern	*Chlidonias niger*	SSC2, BCC		Nearby
Common loon	*Gavia immer*	SSC		In region
Double-crested cormorant	*Phalacrocorax auritus*	WL		Very close
American white pelican	*Pelacanus erythrorhynchos*	SSC1, BCC		Very close
White-faced ibis	*Plegadis chihi*	WL		Nearby
Turkey vulture	*Cathartes aura*	BOP		**On site**
Osprey	*Pandion haliaetus*	WL, BOP		In region
White-tailed kite	*Elanus luecurus*	CFP, BOP		In region
Golden eagle	*Aquila chrysaetos*	BGEPA, CFP, BOP, WL		Nearby
Northern harrier	*Circus cyaneus*	BCC, SSC3, BOP		**On site**
Sharp-shinned hawk	*Accipiter striatus*	WL, BOP		Very close
Cooper's hawk	*Accipiter cooperii*	WL, BOP		On site
Bald eagle	*Haliaeetus leucocephalus*	CE, BGEPA, BOP		In region
Red-shouldered hawk	*Buteo lineatus*	BOP		Very close
Swainson's hawk	*Buteo swainsoni*	CT, BOP	Moderate	**Next to site**
Red-tailed hawk	*Buteo jamaicensis*	BOP		**On site**
Ferruginous hawk	*Buteo regalis*	WL, BOP		Nearby
Rough-legged hawk	*Buteo lagopus*	BOP		In region
Barn owl	*Tyto alba*	BOP		Very close
Western screech-owl	*Megascops kennicotti*	BOP		Nearby
Great horned owl	*Bubo virginianus*	BOP		Very close
Burrowing owl	*Athene cunicularia*	BCC, SSC2, BOP	None	Very close
Long-eared owl	*Asio otus*	BCC, SSC3, BOP		In region
Short-eared owl	*Asia flammeus*	BCC, SSC3, BOP		In region
Lewis's woodpecker	*Melanerpes lewis*	BCC		In region
Nuttall's woodpecker	*Picoides nuttallii*	BCC		Very close
American kestrel	*Falco sparverius*	BOP		**On site**
Merlin	*Falco columbarius*	WL, BOP		**On site**
Peregrine falcon	*Falco peregrinus*	BOP		Very close

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CONT

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Prairie falcon	*Falco mexicanus*	WL, BOP		Very close
Olive-sided flycatcher	*Contopus cooperi*	BCC, SSC2		In region
Willow flycatcher	*Empidonax trailii*	CE		In region
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2		Nearby
Loggerhead shrike	*Lanius ludovicianus*	SSC2	None	Very close
Yellow-billed magpie	*Pica nuttalli*	BCC		In region
Oak titmouse	*Baeolophus inornatus*	BCC		**On site**
California horned lark	*Eremophila alpestris actia*	WL		Nearby
Bank swallow	*Riparia riparia*	CT		Nearby
Purple martin	*Progne subis*	SSC2		Nearby
Wrentit	*Chamaea fasciata*	BCC		In region
California thrasher	*Toxostoma redivivum*	BCC		In region
Cassin's finch	*Haemorhous cassinii*	BCC		In region
Lawrence's goldfinch	*Spinus lawrencei*	BCC		**On site**
Grasshopper sparrow	*Ammodramus savannarum*	SSC2		In region
Black-chinned sparrow	*Spizella atrogularis*	BCC		In region
Gray-headed junco	*Junco hyemalis caniceps*	WL		In region
Bell's sparrow	*Amphispiza b. belli*	WL		In region
Yellow-breasted chat	*Icteria virens*	SSC3		In region
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	SSC3		Nearby
Bullock's oriole	*Icterus bullockii*	BCC		**On site**
Tricolored blackbird	*Agelaius tricolor*	CT, BCC, SSC1	None	Nearby
Virginia's warbler	*Leiothlypis virginiae*	WL, BCC		In region
Yellow warbler	*Setophaga petechia*	SSC2		**Very close**
Summer tanager	*Piranga rubra*	SSC1		In region
Pallid bat	*Antrozous pallidus*	SSC, WBWG:H		In region
Townsend's big-eared bat	*Corynorhinus townsendii*	SSC, WBWG:H		In region
Silver-haired bat	*Lasionycteris noctivagans*	WBWG:M		In range
Hoary bat	*Lasiurus cinereus*	WBWG:M		In region
Western small-footed myotis	*Myotis cililabrum*	WBWG:M		In range

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CONT

Common name	*Species name*	Status[1]	DEIR occurrence potential	Data base records, Site visits
Miller's myotis	*Myotis evotis*	WBWG:M		In region
Little brown myotis	*Myotis lucifugus*	WBWG:M		In region
Yuma myotis	*Myotis yumanensis*	WBWG:LM		In region
Western mastiff bat	*Eumops perotis*	SSC, WBWG:H	None	In region
Fresno kangaroo rat	*Dipodomys nitratoides exilis*	FE, CE		In region
Tipton kangaroo rat	*Dipodomys nitratoides nitratoides*	FE, CE		In region
American badger	*Taxidea taxus*	SSC	None	In region
San Joaquin kit fox	*Vulpes macrotis mutica*	FE, ST	None	In region

[1] Listed as FT or FE = federal threatened or endangered, FC = federal candidate for listing, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CT or CE = California threatened or endangered, CCT or CCE = Candidate California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).
[2] Uncertain if BCC based on 2021 Bird of Conservation Concern list.

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BIOLOGICAL IMPACTS ASSESSMENT

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality.

HABITAT LOSS

The loss of the habitat on the project site would result in substantial reductions in
species richness and the number of wild animals in the area (Smallwood and Smallwood
2023). To measure the impacts of habitat loss to wildlife caused by development
projects, Noriko Smallwood and I revisited 80 sites of proposed projects that we had
originally surveyed in support of comments on CEQA review documents (Smallwood
and Smallwood 2023). We revisited the sites to repeat the survey methods at the same
time of year, the same start time in the day, and the same methods and survey duration
in order to measure the effects of mitigated development on wildlife. We structured the
experiment in a before-after, control-impact experimental design, as some of the sites 21
had been developed since our initial survey and some had remained undeveloped. All of
the developed sites had included mitigation measures to avoid, minimize or compensate
for impacts to wildlife. Nevertheless, we found that mitigated development resulted in a
66% loss of species on site, and 48% loss of species in the project area. Counts of
vertebrate animals declined 90%. "Development impacts measured by the mean number
of species detected per survey were greatest for amphibians (-100%), followed by
mammals (-86%), grassland birds (-75%), raptors (-53%), special-status species (-49%),
all birds as a group (-48%), non-native birds (-44%), and synanthropic birds (-28%).
Our results indicate that urban development, including the development of commercial
and industrial projects, substantially reduces vertebrate species richness and numerical
abundance, even after richness and abundance had likely already been depleted by the
cumulative effects of loss, fragmentation, and degradation of habitat in the urbanizing
environment, and despite all of the mitigation measures and existing policies and
regulations.

Habitat loss not only results in the immediate numerical decline of wildlife, but it also results in permanent loss of productive capacity. Habitat fragmentation multiplies the negative effects of habitat loss on the productive capacities of biological species (Smallwood 2015). None of these impacts, however, are specifically addressed in the DEIR. In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method is to infer productive capacity from estimates of total nest density elsewhere. Two study sites in grassland-wetland-woodland complexes had total bird nesting densities of 32.8 and

35.8 nests per acre (Young 1948, Yahner 1982). These densities, however, are probably too high for the project site, which is largely composed of a production orchard, although the orchard's trees are obviously also used by birds for nesting.

Assuming the total nest density of the project site is 50% of the mean of the estimates of total nest density reported by Young (1948) and Yahner (1982), then I predict 17.2 nest sites per acre. This prediction is only slightly more nests per acre than the 14.4 nests per acre that I estimated for a 9.42-acre Rancho Cordova walnut orchard that I surveyed 30 times over the breeding season of 2023. Projecting 17.2 nests per acre over 284 acres predicts 4,885 nest sites. Assuming 1.39 broods per nest site based on a review of 322 North American bird species, which averaged 1.39 broods per year, then I predict the project supports 6,790 nest attempts/year. Assuming Young's (1948) study result2.9 fledglings per year typifies productivity on the project site, then I predict 19,691 fledglings are produced annually on the project site. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 21,645 birds per year denied to California. This level of loss would be very substantial and highly significant, but yet it is not analyzed nor mitigated in the DEIR. 21 CONT

WILDLIFE MOVEMENT

The DEIR's analysis of whether the project would interfere with wildlife movement is flawed. According to the DEIR, "The project site does not function as a wildlife corridor. Therefore, the implementation of the proposed project would not cause or contribute to any cumulative impacts in this regard." This is a conclusory statement, as it is based on no evidence. It is also based on a flawed premise that the only way that a project can interfere with wildlife movement in the region is by disrupting a wildlife movement corridor. However, whether the site includes or is within a wildlife movement corridor is not the only consideration when it comes to the standard CEQA Checklist question of whether the project would interfere with wildlife movement in the region. The primary phrase of the CEQA standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, a site such as the project site is critically important for wildlife movement because it composes an increasingly diminishing area of open space within a growing expanse of buildings and impervious surfaces, forcing more species of volant wildlife to use the site for stopover and staging during migration, dispersal, and home range patrol (Warnock 2010, Taylor et al. 2011, Runge et al. 2014). The project, due to its elimination of 284 acres of trees. would cut wildlife off from one of the last remaining stopover and staging opportunities in the project area, forcing volant wildlife to travel even farther between remaining stopover sites. This impact would be significant, and as the project is currently proposed, it would be unmitigated. 22

TRAFFIC IMPACTS TO WILDLIFE

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 32–35), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

Photo 32. *A Gambel's quail dashes across a road* on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*

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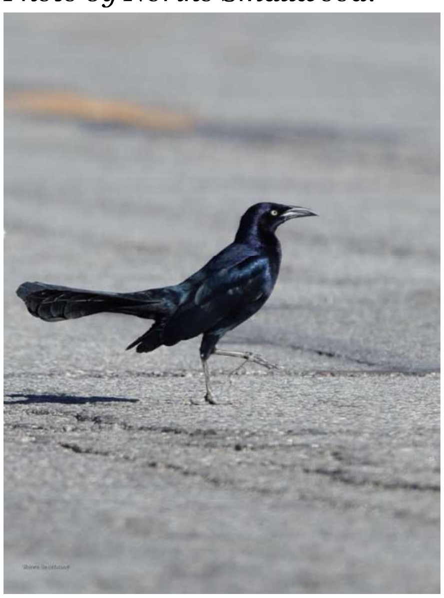

Photo 33. *Great-tailed grackle walks onto a rural road in Imperial County, 4 February 2022.*

Photo 34. *A mourning dove killed by vehicle traffic on a California road. Photo by Noriko Smallwood, 21 June 2020.*

Photo 35. *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

The nearest study of traffic-caused wildlife mortality was performed along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study next to Vasco Road (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011). Also applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 12,187 animals killed by traffic on the road. This fatality number over 1.25 years and 2.5 miles of road translates to 3,900 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 243,740 animals killed per 100 km of road per year, or 29 times that of Loss et al.'s (2014) upper bound estimate and 68 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife. 23 CONT

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,900 animals killed per mile along a county road in Contra Costa County. Two percent of the estimated number of fatalities were birds, and the balance was composed of 34% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 52.3% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 11.7% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the

Mendelsohn et al. (2009), hence enabling a rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates.

Predicting project-generated traffic impacts to wildlife

The DEIR predicts 17,099,450 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 12,187 wildlife fatalities, or 1,825 vehicle miles per fatality. This rate divided into the predicted annual VMT, above, would predict 9,370 vertebrate wildlife fatalities per year. Assuming the roads traveled by project-generated traffic are through areas of wildlife densities that are 30% of the wildlife densities at the Vasco Road study site, the predicted annual mortality would be 2,811, which would still be a very substantial and highly significant level of impact. 23 CONT

Based on my analysis, the project-generated traffic would cause significant impacts to wildlife. The DEIR does not address this potential impact, let alone propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts. The DEIR withdrawn and revised to appropriately analyze the potential impacts of project-generated automobile traffic on wildlife.

CUMULATIVE IMPACTS

The DEIR's cumulative effects analysis is flawed in multiple ways. It starts with the false premise that special-status species of wildlife do not occur at the project site. I detected 12 special-status species at and adjacent to the project site (see Table 1 and the photos above). Many species of wildlife occur at the project site.

The DEIR's next false premise is that the site is unimportant to wildlife movement because it is not part of a wildlife movement corridor. This premise relies on a false standard that a corridor must exist in order for a project to interfere with wildlife movement, It is also contrary to the abundant evidence of wildlife movement at the site. I observed many birds flying to the site or away from the site. None of the wildlife that occur at the site could have occurred there without having first moved to the site during dispersal from natal areas or during migration. The project site is obviously important to wildlife movement in the region. 24

Another of the DEIR's flaws is reliance on the false standard that there exists "a comprehensive regulatory framework that is imposed on cumulative projects to help ensure protected biological resources are identified and any significant impacts are feasibly mitigated." And, "Cumulative projects within the cumulative geographic context would be required to comply with applicable federal, State, and local laws, regulations, and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources." The regulatory framework that is cited is the "applicable General Plan and Municipal Code." However, according to CEQA Guidelines §15064(h)(3), "a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project." And "When relying on a plan, regulation or program, the lead agency should explain how implementing the particular requirements in the plan, regulation or program ensure that the project's incremental contribution to the cumulative effect is not cumulatively considerable." The specific requirements cited in the DEIR consist of MM BIO-1a through MM BIO-1f, all of which are preconstruction surveys. Preconstruction surveys might avoid take of a few specific individual animals found to be in harm's way just prior to construction, but they do nothing to avoid or minimize the loss of productive capacity of each species at issue. Preconstruction surveys do not mitigate cumulative impacts. 24 CONT

MITIGATION MEASURES

Most of the mitigation plan consists of preconstruction surveys: MM BIO-1a through MM BIO-1f. I concur that preconstruction surveys should be performed. However, these surveys need to be preceded by protocol-level detection surveys, and the detection surveys need to precede certification of the EIR. The public and decision-makers need to know whether and how many of each of the special-status species occurs at the project site. Preconstruction surveys performed without the benefit of detection surveys would fail to disclose potential impacts to the species at issue because the surveys would come too late in the CEQA review process.

It needs to be understood that preconstruction surveys do not carry the same probabilities of detection as do detection surveys. Except for the Swainson's hawk survey protocol, whereas detection survey protocols typically recommend multiple surveys according to a carefully formulated schedule, preconstruction surveys typically consist of a single survey with no guidance on time of day or specific methodology. The DEIR misleadingly proposes preconstruction surveys for burrowing owls, San Joaquin kit fox, nesting birds, and roosting bats as if they are protocol-level detection surveys, which they are not. 25

Furthermore, it must be understood that preconstruction surveys achieve very little in terms of avoidance and minimization of impacts to the species of wildlife subject to the surveys. In the case of nesting birds (MM BIO 1-e), the majority of bird nests would not be found by biologists assigned to the survey. Birds are highly adept at hiding their nest sites in order to prevent losing their nests to predators. For this reason, scientists have long struggled to obtain estimates of nesting density of such species as lesser goldfinch. It is unrealistic to imply – as the DEIR does – that preconstruction nest surveys would salvage more than a very small fraction of the nearly 5,000 nests on the 284-acre project site. The same is true of bat roosts.

Surveys to locate all of the bird nests within a defined area consist of two steps, both of which are very difficult. First, the biologist(s) performing the survey must identify birds that are breeding. Second, the biologist(s) must locate the breeding birds' nests. The first step is typically completed by observing bird behaviors such as food deliveries and nest territory defense. For two reasons, these types of observations typically require many surveys on many dates spread throughout the breeding season. First, species if bird vary in their nest phenology, which is their seasonal timing. Some species begin nesting in February or March, whereas others do not begin until July or August. Second, breeding birds attempt to fool observers into believing their nest sites are at locations other than where they are truly located. Finding the true nest site typically requires a lot of perseverance.

For perspective, the project site includes about 36,100 trees. MM BIO 1-e would require that biologists search these trees for bird nests within 7 days prior to removals of these trees. It took me 127 hours of survey time just to estimate total nest density at my Rancho Cordova study site in 2023, and that is without having identified the exact locations of most of the nests. My total nest density survey effort encompassed 102 walnut trees on 9.42 acres, or about 13.5 hours per acre where the tree density was 10.8 per acre. In the almond orchard of the project site and assuming the same per-acre survey effort as I had to commit to my study site, preconstruction surveys to estimate total nest density would require at least 3,834 person-hours, or 160 person-days. 25 CONT
However, the tree density is about 12 times higher than on my study site, so would require many more person-hours than 3,834. The proposed mitigation measure is not achievable. MM BIO 1-e is not a serious measure.

Lastly, the mitigation language in MM BIO 1-e allows a single individual to make a subjective decision, outside the public's view, to determine the buffer area for any given bird species. This measure lacks objective criteria, and is unenforceable.

MM BIO-3 would require that the project developer submit the preliminary Jurisdictional Delineation (JD) and coordinate with the appropriate regulating agencies (Central Valley Regional Water Quality Control Board [RWQCB], California Department of Fish and Wildlife [CDFW] and the United States Army Corps of Engineers [USACE]) to determine whether the Modoc Ditch is protected under Section 404 and 401 of the Clean Water Act (CWA), Porter-Cologne Water Quality Control Act, and/or Fish and Game Code 1602. However, this is not a legitimate mitigation measure, but rather a required administrative step to obtain take authorization. This administrative step should be completed prior to certification of the EIR, so that the public and the decision-makers can learn whether Modoc Ditch is considered jurisdictional by the regulating agencies.

RECOMMENDED MEASURES

Detection Surveys: Although not truly mitigation, protocol-level detection surveys should be implemented for special-status species. These surveys are needed to disclose 26 potential impacts to wildlife, and to inform the preconstruction surveys of where special-status species might occur.

Habitat Loss: If the project goes forward, compensatory mitigation would be warranted for habitat loss. An equal area of open space should be protected in perpetuity as close to the project site as possible.

Road Mortality: Compensatory mitigation is needed for the increased wildlife mortality that will be caused by the project's contribution to increased road traffic in the region. I suggest that this mitigation can be directed toward funding research to identify fatality patterns and effective impact reduction measures such as reduced speed limits and wildlife under-crossings or overcrossings of particularly dangerous road segments. Compensatory mitigation can also be provided in the form of donations to wildlife rehabilitation facilities (see below).

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Fund Wildlife Rehabilitation Facilities: Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Many animals would likely be injured by collisions with automobiles.

Thank you for your attention,

Shawn Smallwood

Shawn Smallwood, Ph.D.

REFERENCES CITED

Bishop, C. A. and J. M. Brogan. 2013. Estimates of avian mortality attributed to vehicle collisions in Canada. Avian Conservation and Ecology 8:2. http://dx.doi.org/10.5751/ACE-00604-080202.

Brown, K., K. S. Smallwood, J. Szewczak, and B. Karas. 2016. Final 2012-2015 Report Avian and Bat Monitoring Project Vasco Winds, LLC. Prepared for NextEra Energy Resources, Livermore, California.

FirstCarbon Solutions. 2023. Biological Resources Assessment Shirk and Riggin Industrial Park Project City of Visalia, Tulare County, California. Report to Seefried Industrial Properties, Inc., El Segundo, California.

Forman, T. T., D. Sperling, J. A. Bisonette, A. P. Clevenger, C. D. Cutshall, V. H. Dale, L. Fahrig, R. France, C. R. Goldman, K. Heanue, J. A. Jones, F. J. Swanson, T. Turrentine, and T. C. Winter. 2003. Road Ecology. Island Press, Covello, California.

Loss, S. R., T. Will, and P. P. Marra. 2014. Estimation of Bird-Vehicle Collision Mortality on U.S. Roads. Journal of Wildlife Management 78:763-771.

Mendelsohn, M., W. Dexter, E. Olson, and S. Weber. 2009. Vasco Road wildlife movement study report. Report to Contra Costa County Public Works Department, Martinez, California.

Runge, C. A., T. G. Martin, H. P. Possingham, S. G. Willis, and R. A. Fuller. 2014. Conserving mobile species. Frontiers in Ecology and Environment 12(7): 395–402, doi:10.1890/130237.

Santos, S. M., F. Carvalho, and A. Mira. 2011. How long do the dead survive on the road? Carcass persistence probability and implications for road-kill monitoring surveys. PLoS ONE 6(9): e25383. doi:10.1371/journal.pone.0025383

Shuford, W. D., and T. Gardali, [eds.]. 2008. California bird species of special concern: a ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California.

Smallwood, K. S. 2015. Habitat fragmentation and corridors. Pages 84-101 in M. L. Morrison and H. A. Mathewson, Eds., Wildlife habitat conservation: concepts, challenges, and solutions. John Hopkins University Press, Baltimore, Maryland, USA.

Smallwood, K. S. 2022. Utility-scale solar impacts to volant wildlife. Journal of Wildlife Management: e22216. https://doi.org/10.1002/jwmg.22216

Smallwood, K. S., and N. L. Smallwood. 2023. Measured effects of anthropogenic development on vertebrate wildlife diversity. Diversity 15, 1037. https://doi.org/10.3390/d15101037.

South Environmental. 2023. Jurisdictional Delineation of Visalia - Kelsey Street Industrial Complex Project in unincorporated, California. Report to FirstCarbon Solutions.

Taylor, R. A. J., and L. R. Taylor. 1979. A behavioral model for the evolution of spatial dynamics. Pp. 1-28 in R. M. Anderson, B. D. Turner, and L. R. Taylor (editors). Population dynamics. Blackwell Scientific Publications, Oxford.

Taylor, P. D., S. A. Mackenzie, B. G. Thurber, A. M. Calvert, A. M. Mills, L. P. McGuire, and C. G. Guglielmo. 2011. Landscape movements of migratory birds and bats reveal an expanded scale of stopover. PlosOne 6(11): e27054. doi:10.1371/journal.pone.0027054.

Warnock, N. 2010. Stopping vs. staging: the difference between a hop and a jump. Journal of Avian Biology 41:621-626.

Yahner, R. H. 1982. Avian nest densities and nest-site selection in farmstead shelterbelts. The Wilson Bulletin 94:156-175.

Young, H. 1948. A comparative study of nesting birds in a five-acre park. The Wilson Bulletin 61:36-47.

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Curriculum Vitae

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Born May 3, 1963 in
Sacramento, California.
Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990. 27
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 762 professional reports, including:
- 90 peer reviewed publications
- 24 in non-reviewed proceedings
- 646 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 92 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

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Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science, *U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

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Projects

Repowering wind energy projects through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

Test avian safety of new mixer-ejector wind turbine (MEWT). Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a $718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. 27 CONT
Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

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Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a "properly functioning HCP." Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson's hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California. 27 CONT

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

Peer Reviewed Publications

Smallwood, K. S. 2022. Utility-scale solar impacts to volant wildlife. Journal of Wildlife Management: e22216. https://doi.org/10.1002/jwmg.22216

Smallwood, K. S., and N. L. Smallwood. 2021. Breeding Density and Collision Mortality of Loggerhead Shrike (*Lanius ludovicianus*) in the Altamont Pass Wind Resource Area. Diversity 13, 540. https://doi.org/10.3390/d13110540.

Smallwood, K. S. 2020. USA wind energy-caused bat fatalities increase with shorter fatality search intervals. Diversity 12(98); https://doi.org/10.3390/d12030098

Smallwood, K. S., D. A. Bell, and S. Standish. 2020. Dogs detect larger wind energy impacts on bats and birds. Journal of Wildlife Management 84:852-864. DOI: 10.1002/jwmg.21863.

Smallwood, K. S., and D. A. Bell. 2020. Relating bat passage rates to wind turbine fatalities.

Diversity 12(84); doi:10.3390/d12020084.

Smallwood, K. S., and D. A. Bell. 2020. Effects of wind turbine curtailment on bird and bat fatalities. Journal of Wildlife Management 84:684-696. DOI: 10.1002/jwmg.21844

Kitano, M., M. Ino, K. S. Smallwood, and S. Shiraki. 2020. Seasonal difference in carcass persistence rates at wind farms with snow, Hokkaido, Japan. Ornithological Science 19: 63–71.

Smallwood, K. S. and M. L. Morrison. 2018. Nest-site selection in a high-density colony of burrowing owls. Journal of Raptor Research 52:454-470.

Smallwood, K. S., D. A. Bell, E. L. Walther, E. Leyvas, S. Standish, J. Mount, B. Karas. 2018. Estimating wind turbine fatalities using integrated detection trials. Journal of Wildlife Management 82:1169-1184.

Smallwood, K. S. 2017. Long search intervals under-estimate bird and bat fatalities caused by wind turbines. Wildlife Society Bulletin 41:224-230.

Smallwood, K. S. 2017. The challenges of addressing wildlife impacts when repowering wind energy projects. Pages 175-187 in Köppel, J., Editor, Wind Energy and Wildlife Impacts: Proceedings from the CWW2015 Conference. Springer. Cham, Switzerland.

May, R., Gill, A. B., Köppel, J. Langston, R. H.W., Reichenbach, M., Scheidat, M., Smallwood, S., Voigt, C. C., Hüppop, O., and Portman, M. 2017. Future research directions to reconcile wind turbine–wildlife interactions. Pages 255-276 in Köppel, J., Editor, Wind Energy and Wildlife Impacts: Proceedings from the CWW2015 Conference. Springer. Cham, Switzerland.

Smallwood, K. S. 2017. Monitoring birds. M. Perrow, Ed., Wildlife and Wind Farms - Conflicts and Solutions, Volume 2. Pelagic Publishing, Exeter, United Kingdom. www.bit.ly/2v3cR9Q

Smallwood, K. S., L. Neher, and D. A. Bell. 2017. Turbine siting for raptors: an example from Repowering of the Altamont Pass Wind Resource Area. M. Perrow, Ed., Wildlife and Wind Farms - Conflicts and Solutions, Volume 2. Pelagic Publishing, Exeter, United Kingdom. www.bit.ly/2v3cR9Q

Johnson, D. H., S. R. Loss, K. S. Smallwood, W. P. Erickson. 2016. Avian fatalities at wind energy facilities in North America: A comparison of recent approaches. Human–Wildlife Interactions 10(1):7-18.

Sadar, M. J., D. S.-M. Guzman, A. Mete, J. Foley, N. Stephenson, K. H. Rogers, C. Grosset, K. S. Smallwood, J. Shipman, A. Wells, S. D. White, D. A. Bell, and M. G. Hawkins. 2015. Mange Caused by a novel Micnemidocoptes mite in a Golden Eagle (*Aquila chrysaetos*). Journal of Avian Medicine and Surgery 29(3):231-237.

Smallwood, K. S. 2015. Habitat fragmentation and corridors. Pages 84-101 in M. L. Morrison and H. A. Mathewson, Eds., Wildlife habitat conservation: concepts, challenges, and solutions. John Hopkins University Press, Baltimore, Maryland, USA.

27
CONT

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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May 10, 2024

Brian Flynn
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1939 Harrison Street, Suite 150
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Subject: Comments on the Shirk & Riggin Industrial Park Project (SCH No. 2022080658)

Dear Mr. Flynn,

We have reviewed the April 2024 Draft Environment Impact Report ("DEIR") for the Shirk & Riggin Industrial Park Project ("Project") located in the City of Visalia ("City"). The Project proposes to construct 3,720,149-square-feet ("SF") of industrial space and 3,750 parking spaces on the 284-acre site.

Our review concludes that the DEIR fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas ("GHG") impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project may be underestimated and inadequately addressed. A revised Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality, health risk, and GHG impacts that the project may have on the environment. 28

Air Quality

Failure to Implement All Feasible Mitigation Measures to Reduce Emissions

The DEIR estimates that the Project's construction-related and operational emissions would exceed the applicable San Joaquin Valley Air Pollution Control District ("SJVAPCD") thresholds. Specifically, regarding construction-related impacts, the DEIR states: 29

> "[I]f construction Phases 1, 2, and 3 were to overlap (i.e., concurrent phasing), the proposed project would exceed Valley Air District thresholds for NO_X and ROG even with implementation of MM AIR-2a. Moreover, no other feasible mitigation measures exist that could reduce NO_X emissions further because the majority of emissions would be due to the amount of construction equipment in use. Even with MM AIR-2a, the concurrent schedule would result in

> such a large amount of construction activity occurring at the same time that it would not reduce the resulting NO_X emissions to below thresholds. Therefore, construction emission impacts of the concurrent worst-case scenario would be significant and unavoidable" (p. 3.3-49).

The DEIR claims that, while the Project's construction-related emissions would exceed applicable thresholds for both reactive organic gases ("ROG") and nitrogen oxides ("NO_x"), no feasible mitigation measures exist to further reduce NO_x emissions. Furthermore, regarding operational impacts, the DEIR states:

> "However, at the time of this report, there is not sufficient information to guarantee that the proposed project could feasibly implement the reduction measures associated with these mitigation measures. Moreover, the project applicant would not have ownership over the operational truck fleets because they would be owned and operated by third party vendors, and as such, the proposed project applicant could not mitigate the impacts of the primary source of operational emissions. Therefore, in the absence of certainty that the identified mitigation can be feasibly mitigated such that project impacts would be reduced to a less than significant level, impacts would remain significant and unavoidable due to NO_X during construction and ROG, NO_X, PM_{10} during operation of the proposed project" (p. 3.3-52).

The DEIR concludes that, even with the implementation of mitigation measures, the Project would exceed SJVAPCD ROG, NO_x and Particulate Matter 10 ("PM_{10}") operational thresholds. 29 CONT

As discussed, the DEIR concludes the criteria air pollutant impacts associated with both construction and operation of the Project would be significant-and-unavoidable. While we agree that the Project would result in significant air quality impacts, the DEIR's assertion that this impact is significant-and-unavoidable is incorrect. According to the California Environmental Quality Act ("CEQA") Guidelines § 15096(a)(1):

> "An EIR shall describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy."

Per CEQA guidelines, the DEIR is required to consider the implementation of all feasible mitigation to reduce impacts to the maximum extent possible. However, although the Project implements Mitigation Measures ("MM") Air-2a through Air-2g, further review demonstrates additional feasible mitigation is available. The DEIR therefore fails to comply with CEQA, and the significant-and-unavoidable impact conclusion should not be relied upon.

Furthermore, CEQA requires that EIRs conduct a good-faith effort at fully disclosing environmental impacts, stating:

> "CEQA does not require technical perfection in an EIR, but rather adequacy, completeness, and a good-faith effort at full disclosure."[1]

By failing to discuss the implementation of potential mitigation measures and failing to include additional available measures, the DEIR does not make a good-faith effort at full disclosure. We will recommend additional feasible mitigation, such as those suggested in the section of this letter titled "Feasible Mitigation Measures Available to Reduce Emissions", for the Project to implement to reduce the significant construction-related and operational criteria pollutant emissions to the maximum extent possible. 29 CONT

Diesel Particulate Matter Emissions Inadequately Evaluated

The DEIR concludes that the proposed Project would result in a less-than-significant health risk impact based on a quantified construction and mobile-source operational health risk assessment ("HRA"). Specifically, the Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report ("AQ & GHG Analysis") provided as Appendix B to the DEIR, estimates that the maximum incremental cancer risk posed to nearby, existing residential sensitive receptors associated with exposure to diesel particulate matter ("DPM") emissions during Project construction and operation would be 6.04 in one million, which would not exceed the SJVAPCD significance threshold of 20 in one million (see excerpt below) (p. 111, Table 27).

Table 27: Cumulative Health Risks and Hazards During Worst-Case/Concurrent Construction (Mitigated) and Operation (Unmitigated) at the MIR

Source	Cancer Risk (risk per million)	Chronic Non-Cancer HI	Acute Non-Cancer HI[1]
Worst-case Construction + Operation	6.04	0.0025	0.06
Significance Threshold	**20**	**1**	**1**
Exceeds Cumulative Threshold?	**No**	**No**	**No**

Notes:
DPM = diesel particulate matter
HI = hazard index
MIR = Maximally Impacted Sensitive Receptor
Source: Health Risk Assessment (Appendix B).

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However, the DEIR's evaluation of the Project's potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect.

The DEIR fails to provide the HRA's exposure assumptions, such as Age Sensitivity Factors ("ASF") and Fraction of Time at Home ("FAH") values mentioned in the cancer risk assessment methodology equations. Specifically, the Project relies on the following dose and risk equation (p. 3.3-64):

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[1] "2024 CEQA Statue & Guidelines." Association of Environmental Professionals, *available at:* https://www.califaep.org/statute_and_guidelines.php, p. 174.

Inhalation Exposure Factor=CPF x EF x ED x DBR x AAF/AT (EQ-2)

Where:

CPF = Inhalation cancer potency factor for the TAC: 1.1 $(mg/kg\text{-}day)^{-1}$ for DPM
EF = Exposure frequency (days/year)
ED = Exposure duration (years of construction)
AAF = set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)
AT = Averaging time period over which exposure is averaged (days)

As demonstrated above, the HRA's relies upon an equation that fails to implement specific exposure assumptions, such as ASF and FAH values. As a result, we cannot verify the calculation of the Project's construction cancer risk is accurate. Until further information is provided regarding the Project's specific exposure assumptions, the Project's cancer risks may be underestimated. 30 CONT

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The AQ & GHG Analysis estimates that the Project would generate net annual GHG emissions of 59,467 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year") (see excerpt below) (p. 126, Table 32). 31

Table 32: Project Operational Greenhouse Gases 2030

Source	Emissions (MT CO_2e per year) (approx.)	
	Business as Usual	2030
Area	0.070	0.0724
Energy	10,806	4,947
Mobile–Passenger Vehicles	15,098	9,811
Mobile–Trucks	69,786	40,127
Waste	2,271	2,001
Water	1,969	1,969
Amortized Construction Emissions	611	611
Total	**100,540**	**59,467**
Reduction from BAU		41,074
Percent Reduction		40.9%
City of Visalia Significance Threshold		30%
Valley Air District Significance Threshold		29%
Are emissions significant?		**No**

Notes:
BAU = Business as Usual
MT CO_2e = metric tons of carbon dioxide equivalent
The project achieves the Valley Air District 29 percent reduction from BAU threshold, and the 21.7 percent required to show consistency with AB 32 targets.
Source of BAU emissions: CalEEMod output using 2005 modeling year to represent emissions in 2020 without regulations (Appendix A).
Source of 2030 emissions: CalEEMod output (Appendix A).

The DEIR states the Project will demonstrate consistency with the City's Climate Action Plan ("CAP"), stating:

> "As described in Table 33, although many actions in the City of Visalia's CAP would not apply as they are intended to be actions taken by the City as opposed to being implemented by individual development projects, the proposed project would be consistent with nearly all the City of Visalia CAP actions applicable to individual development, given the nature of the proposed project including the incorporation of identified design features, as well as assumed implementation of recommended mitigation measures except CAP Action–Solar Panels" (p. 133).

In order to demonstrate consistency with the City's CAP, the DEIR includes various mitigation measures. Specifically, the DEIR implements MM GHG-2a, which states:

> "MM GHG-2a would require that the proposed project includes one of the following measures: rooftop solar panels, solar-ready rooftop design, as feasible, or roofing material contains light coloring with a solar reflective index greater than 78. Therefore, with implementation of MM GHG-2a the proposed project would be consistent with this action" (p. 128) 31 CONT

As discussed, the Project proposes to include either rooftop solar panels, solar-ready rooftop designs, or roofing material that contains a solar reflective index greater than 78 in order to reduce GHG emissions. However, the implementation of these three options would yield varying results. CEQA guidelines requires the use of 'conservative analysis' to afford 'fullest possible protection of the environment.'[2] Consequently, to be consistent with CEQA guidelines, the Project should demonstrate consistency with the most conservative approach.

Similarly, to be consistent with the City's CAP, the Project should implement solar panels specifically, as suggested above. As such, we recommend the Project specifically implements rooftop solar panels as a formal mitigation measure.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

According to California Environmental Quality Act ("CEQA") Guidelines § 15096(g)(2):

> "When an updated EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment." 32

Consequently, the DEIR is required under CEQA to implement all feasible mitigation to reduce the Project's potential impacts. We will recommend various mitigation measure specific to this project,

[2] "Warehouse Truck Trip Study Data Results and Usage" Presentation. SCAQMD Inland Empire Logistics Council, June 2014, *available at*: http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/final-ielc_6-19-2014.pdf?sfvrsn=2

alongside referring to the Department of Justice's ("DOJ") advice regarding "best practices" for warehouse projects. [3]

As discussed above in the section titled "Failure to Implement All Feasible Mitigation to Reduce Emissions," our analysis demonstrates that the Project would result in potentially significant air quality impacts from ROG, NO_x, and PM_{10} emissions. The CalEEMod User's Guide states that ROG, or volatile organic compounds ("VOC"), emissions are calculated from both the application of architectural coating and the exhaust of mobile sources.[4] Specifically, the Environmental Protection Agency ("EPA") details that VOCs are emitted from the use of "paints, solvents, aerosol sprays, cleansers, tobacco smoke" as well as "combustion and fuel evaporation," outlined in Table 3.3-1 to the DEIR (p. 3.3-7 – 8). [5]

While the DEIR incorporates MM AIR-2b for construction-related architectural coatings titled "Super Compliant Architectural Coating During Construction," it fails to mention operational architectural coatings whatsoever. As operational architectural coatings emit ROGs, the DEIR should consequently mitigate the associated impacts.[6] 32 CONT

Furthermore, the EPA explains that NO_x emissions originate from "motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers."[7] Similarly, according to the EPA, sources of PM_{10} emissions include "vehicle exhaust and road dust." [8] To reduce NO_x and PM_{10} emissions during Project construction and operations from engine exhaust, we recommend several mitigation measures from SCAG's 2020 *RTP/SCS* PEIR's Air Quality Project Level Mitigation Measures ("PMM-AQ-1") that target Project-related NO_x and PM_{10} sources: [9]

- Minimize unnecessary vehicular and machinery activities.
- Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the

[3] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice, September 2022, *available at*: https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 8 – 10.
[4] "Calculation Details for CalEEMod." CAPCOA, May 2021, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-a2020-4-0.pdf?sfvrsn=6, Appendix A, p. 3.
[5] "Indoor Air Quality. Sources of Indoor Air Pollution—Organic Gases (Volatile Organic Compounds—VOCs)." EPA, November 2017, *available at*: https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality.
[6] "Calculation Details for CalEEMod." AQMD, May 2021, *available at:* https://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/appendix-a2020-4-0.pdf?sfvrsn=6.
[7] "Proposed Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide." EPA, July 2009, *available at*: https://www.gpo.gov/fdsys/pkg/FR-2009-07-15/pdf/E9-15944.pdf.
[8] "Particle Pollution and your Health." EPA, September 2003, *available at*: https://www.airnow.gov/publications/air-quality-andyour-health/partical-pollution-and-your-health/.
[9] "4.0 Mitigation Measures." Connect SoCal Program Environmental Impact Report Addendum #1, September 2020, available at: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_addendum_4_mitigationmeasures.pdf?1606004420, p. 4.0-2 – 4.0-10; 4.0-19 – 4.0-23; See also: "Certified Final Connect SoCal Program Environmental Impact Report." Southern California Association of Governments (SCAG), May 2020, *available at:* https://scag.ca.gov/peir.

construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet. Daily logging of the operating hours of the equipment should also be required.

- Ensure that all construction equipment is properly tuned and maintained.
- Minimize idling time to 5 minutes or beyond regulatory requirements —saves fuel and reduces emissions.
- Projects located within the South Coast Air Basin should consider applying for South Coast AQMD "SOON" funds which provides funds to applicable fleets for the purchase of commercially available, low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles. 32 CONT

As demonstrated above, we have provided several mitigation measures that would reduce operational ROG emissions, and operational and construction-related NO_x and PM_{10} emissions, respectively. These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently reduce emissions released during Project construction and operation.

A revised EIR should be prepared to include all feasible mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's potentially significant emissions are reduced to the maximum extent possible.

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is 33
made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul Rosenfeld

Paul E. Rosenfeld, Ph.D.

Attachment A: Matt Hagemann CV
Attachment B: Paul Rosenfeld CV

Attachment A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist 34
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities. 34 CONT
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows: 34 CONT

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park. 34 CONT
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

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Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ. 34 CONT

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada. 34 CONT

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

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Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

Attachment B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Focus on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years of experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion. 34 CONT

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Rosenfeld P. E., Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution.* **233,** 171.

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

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CONT

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178. 34 CONT

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

34 CONT

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23^rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

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CONT

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain. 34 CONT

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites. 34 CONT

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Superior Court of the State of California, County of San Bernardino
Billy Wildrick, Plaintiff vs. BNSF Railway Company
Case No. CIVDS1711810
Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia
Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company
Case No. 10-SCCV-092007
Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana
Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.
Case No. 2020-03891
Rosenfeld Deposition 9-15-2022

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In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division
Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad
Case No. 18-LV-CC0020
Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.
Case No. 20-CA-5502
Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri
Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.
Case No. 19SL-CC03191
Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.
Case No. NO. 20-CA-0049
Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District
Greg Bean, Plaintiff vs. Soo Line Railroad Company
Case No. 69-DU-CV-21-760
Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington
John D. Fitzgerald Plaintiff vs. BNSF
Case No. 3:21-cv-05288-RJB
Rosenfeld Deposition 8-11-2022

In Circuit Court of the Sixth Judicial Circuit, Macon Illinois
Rocky Bennyhoff Plaintiff vs. Norfolk Southern
Case No. 20-L-56
Rosenfeld Deposition 8-3-2022

In Court of Common Pleas, Hamilton County Ohio
Joe Briggins Plaintiff vs. CSX
Case No. A2004464
Rosenfeld Deposition 6-17-2022

In the Superior Court of the State of California, County of Kern
George LaFazia vs. BNSF Railway Company.
Case No. BCV-19-103087
Rosenfeld Deposition 5-17-2022

In the Circuit Court of Cook County Illinois
Bobby Earles vs. Penn Central et. al.
Case No. 2020-L-000550
Rosenfeld Deposition 4-16-2022

In United States District Court Easter District of Florida
Albert Hartman Plaintiff vs. Illinois Central
Case No. 2:20-cv-1633
Rosenfeld Deposition 4-4-2022

In the Circuit Court of the 4th Judicial Circuit, in and For Duval County, Florida
Barbara Steele vs. CSX Transportation
Case No.16-219-Ca-008796
Rosenfeld Deposition 3-15-2022

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In United States District Court Easter District of New York
Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-10-2022

In the Circuit Court of Cook County Illinois
Linda Benjamin vs. Illinois Central
Case No. No. 2019 L 007599
Rosenfeld Deposition 1-26-2022

In the Circuit Court of Cook County Illinois
Donald Smith vs. Illinois Central
Case No. No. 2019 L 003426
Rosenfeld Deposition 1-24-2022

In the Circuit Court of Cook County Illinois
Jan Holeman vs. BNSF
Case No. 2019 L 000675
Rosenfeld Deposition 1-18-2022

In the State Court of Bibb County State of Georgia
Dwayne B. Garrett vs. Norfolk Southern
Case No. 20-SCCV-091232
Rosenfeld Deposition 11-10-2021

In the Circuit Court of Cook County Illinois
Joseph Ruepke vs. BNSF
Case No. 2019 L 007730
Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska
Steven Gillett vs. BNSF
Case No. 4:20-cv-03120
Rosenfeld Deposition 10-28-2021

In the Montana Thirteenth District Court of Yellowstone County
James Eadus vs. Soo Line Railroad and BNSF
Case No. DV 19-1056
Rosenfeld Deposition 10-21-2021

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al.cvs. Cerro Flow Products, Inc.
Case No. 0i9-L-2295
Rosenfeld Deposition 5-14-2021
Trial October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No. 18-L-6845
Rosenfeld Deposition 6-28-2021

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In the United States District Court For the Northern District of Illinois
Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail
Case No. 17-cv-8517
Rosenfeld Deposition 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case No. CV20127-094749
Rosenfeld Deposition 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al vs. CNA Insurance Company et al.
Case No. 1:17-cv-000508
Rosenfeld Deposition 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, Plaintiff, vs. Marathon Petroleum, LP, Defendant.
Case No. 1716-CV10006
Rosenfeld Deposition 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, Plaintiffs, vs. United States Metals Refining Company et. al. Defendant.
Case No. 2:17-cv-01624-ES-SCM
Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" Defendant.
Case No. 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No. BC615636
Rosenfeld Deposition 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No. BC646857
Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiffs vs. The 3M Company et al., Defendants
Case No. 1:16-cv-02531-RBJ
Rosenfeld Deposition 3-15-2018 and 4-3-2018

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In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No. 1923
Rosenfeld Deposition 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintifs vs. Chevron Corporation, et al., Defendants
Cause No. C12-01481
Rosenfeld Deposition 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case No. 1:19-cv-00315-RHW
Rosenfeld Deposition 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No. LC102019 (c/w BC582154)
Rosenfeld Deposition 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., Plaintiffs, vs. Meritor Inc., et al., Defendants
Case No. 4:16-cv-52-DMB-JVM
Rosenfeld Deposition July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No. RG14711115
Rosenfeld Deposition September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No. LALA002187
Rosenfeld Deposition August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action No. 14-C-30000
Rosenfeld Deposition June 2015

In The Iowa District Court for Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No. 4980
Rosenfeld Deposition May 2015

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In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case No. CACE07030358 (26)
Rosenfeld Deposition December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, Plaintiff, vs. Aruba et al, Defendant.
Case No. cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., Plaintiffs, vs. Republic Services, Inc., et al., Defendants
Case No. 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.
Civil Action No. 2:09-cv-232-WHA-TFM
Rosenfeld Deposition July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., Plaintiffs, vs. Drummond Company Inc., et al., Defendants
Civil Action No. CV 2008-2076
Rosenfeld Deposition September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., Plaintiffs, vs. Citgo Petroleum Corporation, et al., Defendants.
Case No. 2:07CV1052
Rosenfeld Deposition July 2009

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Laborers International Union of North America, Local 294 (LIUNA)

Comment LIUNA-1

The commenter provides background information on LIUNA and its technical consultants. It further states the commenter's general position is that the Draft EIR fails to comply with CEQA because it (1) does not adopt feasible mitigation measures for significant and unavoidable impacts of the proposed project, (2) does not adopt the environmentally superior Reduced Footprint Alternative, (3) does not account for all of the cumulative projects in the project vicinity, (4) does not adequately disclose and mitigate impacts to biological resources, (5) does not adequately analyze the proposed project's energy impacts, and (6) does not provide substantial evidence that the proposed project would not result in increased cancer risk to nearby residents. As such, the comment requests that the Draft EIR be revised and recirculated to address the issues raised in the comment.

Response to LIUNA-1

The comment is noted for the record. It does not raise any specific project-related environmental issues under CEQA and therefore no further response is required.

Comment LIUNA-2

The comment provides a description of the proposed project.

Response to LIUNA-2

The comment is noted for the record. It does not raise any specific project-related environmental issues under CEQA, and therefore no further response is necessary.

Comment LIUNA-3

The commenter purports to provide a description of the general legal standard and other legal principles that govern environmental review under CEQA. The commenter reiterates assertions regarding the inadequacy of the Draft EIR and the proposed mitigation measures, as well as the omission of analysis. These comments are separately reiterated below and are specifically addressed in Responses to LIUNA-4 through LIUNA-34, below.

Response to LIUNA-3

The comment is noted. The Lead Agency concurs that the Draft EIR is an informational document. The Shirk and Riggin Industrial Project Draft EIR was prepared and reviewed by City staff and technical experts and is consistent with State CEQA Guidelines. The document includes analysis related to Aesthetics, Agricultural Resources, Air Quality, Biological Resources, Cultural/Tribal Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Service, Transportation and Traffic, Utilities and Service Systems, and Wildfire. Furthermore, Chapter 1, Introduction, of the Draft EIR specifically states the purpose of the document (see Section 1.1.2, Purpose and Authority, on pages 1-1 and 1-2).

The Lead Agency concurs that the Draft EIR is a public informational document used in the planning and decision-making process. The Draft EIR also discloses potential impacts found not to be significant and significant cumulative impacts of past, present, and reasonably foreseeable future projects. CEQA requires an EIR to reflect the independent judgment of the lead agency with respect to impacts, disclose the level of significance of the impacts both with and without mitigation, and describe the mitigation measures proposed to reduce the impacts.

This project-level Draft EIR analyzes the environmental impacts of the proposed project. The City of Visalia Planning Commission and City Counsel will consider the information in the Draft EIR, including public comments and responses to those comments, during the public hearing process. The Lead Agency is of the opinion that this Draft EIR and the public review process has sufficiently complied with State CEQA Guidelines. The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA.

Comment LIUNA-4
The first part of the comment sets forth various legal principles addressing CEQA requirements relating to consideration of mitigation measures and alternatives.

The second part of the comment notes the significant and unavoidable impacts identified in the Draft EIR; states that the Final EIR must require all feasible mitigation measures to reduce air quality impacts; and includes other suggested mitigation measures. The commenter also asserts that the air quality analysis in the Draft EIR included ROG emissions from architectural coatings during constructino but did not include an analysis of ROG emissions from architectural coatings during operations. The commenter states this is necessary because there is additional feasible mitigation available, and by failing to discuss and include these additional measures, the Draft EIR does not make a good faith effort at full disclosure.

Response to LIUNA-4
See Response to LIUNA-3, above. The first part of the comment does not raise any project-related environmental issues under CEQA, and thus no further response is necessary.

Regarding the second part of the comment, the Draft EIR adheres to CEQA's requirement that the EIR describe feasible measures that could minimize the project's significant adverse impacts (CEQA Guidelines § 15126.4(a)(1)). An EIR may decline to propose a mitigation measure that would not effectively address a significant impact. *Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 365.

An EIR also need not identify and discuss mitigation measures that are infeasible. "Nothing in CEQA requires an EIR to explain why certain mitigation measures are infeasible." *Clover Valley Found. v. City of Rocklin* (2011) 197 Cal.App.4th 200, 245. Nor must an EIR analyze in detail mitigation measures it concludes are infeasible. *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 351. *See also Kostka & Zischke*, Practice Under the California Environmental Quality Act, 2nd Edition. While an EIR must respond to comments making specific suggestions for mitigating a significant impact unless the suggested mitigation is "facially infeasible," a response that provides a reasoned analysis of the City's determination that a proposed measure is infeasible or would not be useful is sufficient. An EIR need not explain why suggested mitigation measures that are described in general terms and are not specific to the project are infeasible. While the City is required to respond to such comments, it is not required to accept the suggested mitigation measures.

The commenter purports to assert legal principles under CEQA related to mitigation, and then claims that the proposed project would result in potentially significant air quality impacts from ROG, NO_x and PM_{10} and did not implement all feasible mitigation measures to reduce its significant impacts, and provides a list of recommended mitigation measures. Each suggested mitigation measure is discussed below.

The following responses include discussion of new mitigation measures suggested by the commenter. Under *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1993) 6 C4th 1112 and CEQA Guidelines Section 15088.5(a)(3)), when information added to the Final EIR consists of a suggested new mitigation measure, recirculation is only required if the mitigation measure meets each of the following criteria (*South County Citizens for Smart Growth v. County of Nevada* (2013) 221 CA4th 316, 330):

- It is feasible;
- It is considerably different from the alternatives or mitigation measures already evaluated in the Draft EIR;
- It would clearly lessen the project's significant environmental impacts; and
- It is not adopted.

For the reasons described herein, none of the above triggers has occurred with respect to the suggested measures.

The first requested measure relates to expanding MM AIR-2b to include architectural coating requirements during project operation to reduce operation ROG emissions. The Draft EIR adequately addressed potential ROG impacts that could occur during project construction and operation; disclosed identified impacts; and then identified a range of mitigation measures that would reduce these impacts to the extent feasible.

Moreover, the Draft EIR considered potential health risk impacts associated with ROG emissions generated by the use of consumer products, which would be limited to the immediate area in which they are used on-site and would only occur during activities that use those products, such as facility cleaning activities. As the Draft EIR explained, nearby sensitive receptors would not be exposed to significant amounts of consumer product ROGs during operation of the proposed project because residents would not be located on the project site and consumer product activities would only occur during scheduled cleaning activities. Therefore, nearby sensitive receptors would not be exposed to substantial ROG concentrations during project operations.

Finally, the suggested measure would not be feasible to implement. This is because future occupants would have access to consumer products available on the marketplace. Regulation of consumer products available on the marketplace is not within the control of any individual project applicant or lead agency. Therefore, requiring the use of only low ROG supplies and equipment in perpetuity is neither feasible nor enforceable.

As detailed more fully in the Draft EIR, the analysis identified mitigation to help reduce operational emissions. For example, MM AIR-2c, MM AIR-2d, MM AIR-2e, MM AIR-2f, and MM AIR-2g would contribute toward NO_X emissions reductions. For example, MM AIR-2c would require (1) that all on-site off-road and on-road service equipment be zero-emission or all-electric, and (2) that all project buildings would be designed to support the use of zero-emission or all-electric service equipment. By utilizing zero-emission on-site service equipment, the proposed project would reduce NO_X emissions to the extent feasible that would otherwise occur.

MM AIR-2d would require each project applicant, in connection with an individual specific development proposal, to include infrastructure for EV charging stations into a minimum of 20 percent of all vehicle parking spaces (including parking for trucks) for the subject proposal, consistent with the applicable California Green Building Standards Code (CALGreen) Tier 1 Nonresidential Mandatory Measure (Section A5.106.5.3). Although this measure would not directly include functioning charging stations, the installation of the infrastructure needed to support charging stations would allow for the future charging stations to be installed. Furthermore, MM AIR-2d would require the design of the building's electrical room to hold additional panels that may be needed to supply power for the future installation of EV truck charging stations on-site. By providing EV charging infrastructure, this measure would allow for the installation of charging stations, which would provide a convenient location for employees to charge EVs and incentivize employees to use EVs.

MM AIR-2e would require the relevant project applicant to include signage and pavement markings along project site driveways and internal roadways to clearly identify on-site circulation patterns, minimize unnecessary on-site vehicle travel, and reduce vehicle idling, which would otherwise result in excessive NO_X and particulate matter 10 micrometers or less in diameter (PM_{10}) emissions.

MM AIR-2f would require the proposed project to include a vegetative barrier along the south and east property boundaries. Vegetative barriers utilize the natural process of photosynthesis, where plants intake air particles including gaseous pollutants, such as NO_X, and release oxygen. By including a vegetative barrier along the south and east property boundaries, MM AIR-2f would reduce exposure of NO_X and PM_{10} emissions on nearby homes and sensitive receptors to the southeast.

Finally, MM AIR-2g would require each project applicant, in connection with an individual specific development proposal, to consider the feasibility of entering into a VERA District in order to reduce reactive organic gases (ROG), NO_X, and PM_{10} emissions. As the Draft EIR explained, a VERA is a potential mitigation measure that provides pound-for-pound mitigation of emissions that exceed applicable thresholds. A VERA reduces construction and operational emissions through a process that develops, funds, and implements emission reduction projects, with the District serving as the administrator of the emissions reduction projects and verifier of the successful mitigation effort. However, a VERA is a voluntary recommendation, it is not a requirement of by the District or any regulation. Also, for purposes of CEQA, because the terms of a specific VERA are not currently known, whether this would be feasible is speculative at this time.

In addition to the foregoing measures, due to the proposed project's size (i.e., the proposed project would result in the development of greater than 25,000 square feet of light industrial building space), the proposed project would be required to pay emission reduction fees associated with its Indirect Source Review application, consistent with the requirements contained in District Rule 9510. The Indirect Source Review application and fees to the SJVAPCD would reduce project emissions since the Air District would direct the fees to fund other air quality improvement measures throughout the San Joaquin Valley Air Basin. Although the mitigation does not require a VERA, it does require consultation with the SJVAPCD regarding the feasibility of entering into a VERA. Moreover, the incorporation of Indirect Source Review application measures and payment of applicable fees, as well as the implementation of the other identified mitigation, would further offset proposed project air pollutant emissions.

The comment has been noted for the record. The commenter does not otherwise raise a substantive issue on the content of the EIR, and revisions to the Draft EIR are not necessary.

Comment LIUNA-5
The commenter purports to set forth legal principles under CEQA with respect to the adoption and rejection of alternatives. The commenter then goes on to summarize the significant and unavoidable impacts identified in the Draft EIR and provide a summary of the Reduced Footprint Alternative. The comment states that the City has not and cannot support a finding that the Reduced Footprint Alternative is infeasible.

Response to LIUNA-5
To the extent the comment makes general assertions but does not raise any specific project-related environmental issues under CEQA, and therefore no response is necessary.

The basic purpose of an EIR's discussion of alternatives is to suggest ways project objectives might be achieved at less environmental cost. An alternative that would substantially reduce the project's environmental impacts should not be excluded from the analysis simply because it would not fully achieve all of the project's objectives or be more costly (CEQA Guidelines § 15126.6(a)). An EIR need not, however, present alternatives that are incompatible with the project's fundamental purpose or would otherwise change the basic nature of the proposed project.

An EIR must examine a range of alternatives that are "potentially feasible." *Id.* The term "feasible" is defined as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological and legal factors (PRC § 21061.1, CEQA Guidelines § 15364). An EIR must contain a reasonable range of feasible alternatives to the project, or to the location of the project, which can attain most of the project's objectives and would avoid or substantially lessen any of the project's significant effects. (PRC § 21100(b)(4); 14 CCR § 15126.6(a)). The selection of alternatives to be discussed in an EIR is governed by the rule of reason. Id. See also *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376. An agency may eliminate from consideration alternatives that do not avoid or substantially lessen the project's significant environmental impacts. *Mann v. Community Redevelopment Agency* (1991) 233 Cal.App.3d 1143, 1150-51. Courts reject ironclad rules for determining feasibility and have concluded that a pragmatic standard for weighing the feasibility of alternatives applies. An EIR does not need to determine whether the alternatives included for evaluation could feasibly be implemented (CEQA Guidelines § 15126.6(d)). However, if the EIR finds that an included alternative is infeasible, it should disclose the supporting evidence and analysis.

With respect to the comment regarding the alternatives analysis, contrary to its assertion that only economic issues were considered with respect to this alternative, there is substantial evidence in the record that supports a conclusion that the Reduced Footprint Alternative (1) would not achieve most of the project alternatives and (2) is not feasible.

The Draft EIR sets forth a thoughtful comparison of a reasonable range of potentially feasible alternatives. As detailed in the Draft EIR, the Reduced Footprint Alternative would not meet any of the project objectives to the same degree as the proposed project (and, in fact, would impair achievement of same to a great degree in a number of cases) and would be infeasible due to social, economic and other reasons.

For example. a substantial reduction in project size (by half, from 284 to 142 acres) would significantly reduce the multiple "beneficial" aspects of the project, such as property taxes received by the City, generation of substantial employment and resulting improvement of the area's jobs-to-housing ratio. It would also significantly undercut the fundamental purpose of developing a mixed-use industrial and commercial development in an economically viable manner given that this alternative would reduce the development opportunity by 50 percent, and require the remaining portion of the project site to be utilized for agricultural uses already determined to no longer be appropriate by the County Board of Supervisors during the Williamson Act cancellation process. Such marked economic infeasibility is in stark contrast to the case cited in the comment letter, *Citizens of Goleta Valley v Board of Supervisors* (1988) 197 CA3d 1167, 1179, in which the decision to reject an alternative was based simply on fact that it would be more expensive or less profitable. Additionally, to satisfy that requirement, a project is not obligated to include an alternative that will not substantially reduce or avoid the project's significant impacts. In Tracy First v. City of Tracy (2009) 177 Cal.App.4th 912, a case involving a proposed specific plan amendment and conditional use permit to build a 95,900-square-foot WinCo Foods store, the petitioners argued that the project EIR's range of alternatives was insufficient because it did not include a "reduced-store-size" alternative. The court rejected this argument as "without merit" because the record did not establish that "a reduced-size alternative would substantially diminish any of the significant environmental impacts of the project.

The Reduce Footprint Alternative would also substantially hamper the ability of the City to implement its longtime vision for the project site and instead increase land use incompatibilities, thereby creating inconsistencies with applicable goals and policies as set forth in the General Plan, including the designations and policies that contemplate light industrial and industrial uses (rather than agricultural uses). This alternative also would severely impair the objectives that seek to: maximize development of the existing underutilized project site; create employment-generating businesses to reduce the need for members of the local workforce to commute outside the area for employment, and maximize the placement of industrial uses in close proximity to the State Highway system and other major transportation corridors to avoid or shorten truck trip lengths. It would also not meet the project objectives related to placement of industrial uses to avoid locating industrial buildings in close proximity to residential uses and other sensitive receptors.

Moreover, even with this drastic reduction-cutting the project in half-significant and unavoidable impacts would remain.

CEQA does not require the lead agency to approve the environmentally superior alternative. When determining whether to approve a project, it is up to the lead agency's decision-makers to weigh the relative advantages and disadvantages of the project and the alternatives examined in the EIR. The lead agency has discretion to weigh environmental factors together with the entire range of legal and policy considerations relevant to its action on the project (PRC § 21081(a)(3); State CEQA Guidelines § 15091). The Draft EIR, along with other substantial evidence in the record, are adequate for the City to reject the Reduced Footprint Alternative. Accordingly, this comment will be forwarded to the decision-makers for their consideration together with the entire record. However, the Lead Agency is of the opinion that this Draft EIR and the public review process has sufficiently complied with State CEQA Guidelines. The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA.

Comment LIUNA-6
The commenter provides a summary of CEQA requirements in conducting a cumulative impact analysis, and states that the Cumulative Impacts section of the Draft EIR located within the Biological Resources, Section 3.4, is not complete as it does not include the industrial development proposed just south of the project site at the southwest corner of North Shirk Street and West Riggin Avenue. The commenter then notes that the proposed project's cumulative impact analysis needs to be revised to include the foregoing cumulative development.

Response to LIUNA-6
The Draft EIR appropriately considers all relevant cumulative developments, as described more fully therein. The City released a Mitigated Negative Declaration (MND) for the above-referenced "Shirk and Riggin Annexation Project" in April 2024. The physical conditions existing when the NOP for the subject development is published normally are used to establish the baseline for cumulative impacts (CEQA Guidelines § 15125 (a)(1). The NOP for the proposed project was issued August 29, 2022. The City has discretion to determine a reasonable date as a cutoff for which projects are to be included and considered in the cumulative impacts analysis. See, e.g., *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 328 (agency has discretion to determine existing conditions baseline, subject to review for substantial evidence); *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099 (county had discretion to set date of application for current project as cutoff date for deciding which projects to include in cumulative impacts analysis). In defining what constituted a "cumulative project" for purposes of this analysis, for purposes of "reasonably foreseeable future projects," the City, in its discretion as lead agency, determined to include the following: (1) all approved but not yet constructed developments; and (2) all developments that had submitted formal applications with the City. When the project's NOP was published, and the baseline for evaluation was set by the City, the application for the separate Shirk and Riggin Annexation Project had not been deemed complete, and therefore was not considered to be a reasonably foreseeable future project. Accordingly, the commenter's suggestion that the Cumulative Impacts section of the Draft EIR is flawed for not including the Shirk and Riggin Annexation Project is not accurate under the law; and the Draft EIR fully accounts for all relevant cumulative development projects known at the time environmental review commenced (i.e., NOP publication date). The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA. No further response is required.

For informational purposes, the following is noted. All proposed projects that involve discretionary review, regardless of whether they are included in the cumulative project list, including, without limitation, the "Shirk and Riggin Annexation Project" would be subject to review in separate environmental documents and required to conform with the applicable General Plan and City development standards and other requirements under applicable laws and regulations. For example, during the site-specific evaluation for the Shirk and Riggin Annexation Project, its CEQA analysis determined that the foregoing development would not have any significant biological resources impacts, either individually or cumulatively, due to the fact that there is no suitable habitat for special-status species.

The Draft EIR includes adequate mitigation for cumulative impacts to biological resources. Those measures include MM BIO-1a through MM BIO-1f and MM BIO-3. MM BIO-1a through MM BIO-1f mitigate for potential impacts to Swainson's hawk, burrowing owl, Crotch's bumblebee, San Joaquin kit fox, and American badger. If any of these species are found to be on-site prior to project-related activities, implementation of MM BIO-1a through MM BIO-1f would reduce impacts to these species to a less than significant level under CEQA.

The commenter's specifies their approach to cumulative analysis as using the appropriate geographical context, identifying the relevant cumulative developments being considered, and accounting for cumulative impacts related to special-status species, including Swainson's hawk, Crotch's bumblebee, San Joaquin kit fox, western burrowing owl, and American badger. However, the analysis in the Draft EIR confirms that, due to the already-urbanizing nature of the relevant geographic context, as well as the requirements that the relevant cumulative projects comply with applicable federal, State, and local laws, regulations, and policies, all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources, and all other site-specific mitigation measures, cumulative impacts in this regard would be less than significant.

It should be noted that CDFW reviewed these mitigations and did not find them inadequate to mitigate impacts to these species. MM BIO-1d and MM BIO-3 have been revised to further meet CDFW standards. MM BIO-3 requires a Jurisdictional Delineation which, in association with applicable agencies will mitigate any impacts to jurisdictional features on-site. Implementation of these mitigations would mitigate potential project-related impacts to biological resources on-site and adequately mitigation for cumulative impacts to biological resources.

The Lead Agency concluded that a less than significant cumulative biological impact with mitigation incorporated. This is especially so where, as here, the impacts to sensitive species are small and the amount of habitat actually being used by those species is even smaller. CEQA requires that the project be adequately analyzed and that its environmental impacts are mitigated to the fullest extent feasible. The proposed mitigation measures satisfy CEQA by providing mitigation for the cumulative impacts to biological resources. Based on the information presented above, the lead agency is of the opinion that potential project impacts related to cumulative impacts and biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required.

The Cumulative Impacts portion of Section 3.4, Biological Resources, of the Draft EIR adheres to the commenter's suggested approach; for example, it specifies an appropriate geographical context, identifies the relevant cumulative developments being considered, and accounts for cumulative impacts related to special-status species, including Swainson's hawk and Crotch's bumblebee, through MM BIO-1b and BIO-1d (revised). The analysis in the Draft EIR confirms that, due to the already-urbanizing nature of the relevant geographic context, as well as the requirements that the relevant cumulative projects comply with applicable federal, State, and local laws, regulations, and policies, all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources, and all other site-specific mitigation measures, cumulative impacts in this regard would be less than significant.

Morever, as detailed in the Draft EIR and related BRA, the project site is an actively managed orchard that provides negligible habitat value for special-status species. With compliance with applicable laws, regulations, and policies and the implementation of all recommended species-specific mitigation measures (MM BIO-1a, MM BIO-1b, MM BIO-1c, and MM BIO-1d revised), potential project-related impacts to special-status wildlife species would not make a cumulatively considerable contribution to this already less than significant cumulative impact. Thus, the cumulative impact analysis satisfies requirements under CEQA.

Comment LIUNA-7
The commenter generally summarizes responses to the Draft EIR (including the Biological Resources Assessment [BRA] attached thereto). It also raises a specific comment regarding a purported underestimation of the diversity of the species utilizing the project site.

Response to LIUNA-7
The general comments are noted for the record. To the extent the commenter does not raise any specific project-related environmental issues under CEQA, no further response is required.

With respect to the specific comment regarding the purported underestimation of the diversity of the species utilizing the project site, CDFW has been consulted regarding the proposed project and did not provide comment regarding the underestimation of the diversity of species utilizing the project site. Further, CDFW did not recommend additional mitigation measures outside of what the Draft EIR has proposed. Lastly, where CDFW did provide comments on the Draft EIR (regarding proposed mitigation), these comments have been revised to include refinements recommended by the CDFW (see Section 3, Errata, of the Final EIR). These refinements represent clarifying language to better ensure compliance with CDFW processes. Additionally, all surveys conducted for the project site were done in accordance with existing standards and did not identify the species the commenter observed. It should also be noted that the commenter's mathematical extrapolations are not based on industry standards and are therefore speculative. Speculation does not constitute substantial evidence under CEQA. (CEQA Guidelines Sections 15145; 15384).

The commenter's report describes the presence of 12 special-status species that were supposedly observed on-site during his purported "site visits." The Lead Agency takes no position as to the accuracy of the purported species observed during the unauthorized and unpermitted access. Additionally, Photo 6 is from 2022 from an unidentified site; this photo could have been taken at any site in the central valley, and there is no evidence provided to indicate the photo was taken on the project site. Therefore, the commenter's assessment of the diversity of the species on-site is speculative at best.

The timing and scope of the survey referred to in the Draft EIR reflects standard industry practice; specifically, a stand-alone BRA was preprepared based on industry standard methodologies, and available as Appendix C of the Draft EIR. As explained further in Section 3.4, Biological Resources, of the Draft EIR and in the BRA attached thereto, the analysis employed a thoughtful and robust methodology, consistent with industry standard practices, to identify special-status species that could potentially be impacted by the proposed project. Based on this methodological approach, a database search using California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI) was conducted within the *Goshen, California* United States Geological Survey (USGS) 7.5-minuteTopographic Quadrangle Map and its eight neighboring quadrangles which resulting in 33 special-status species being initially considered, but due to a lack of potential habitat and other considerations, all but five were not determined to warrant further consideration. This evaluation included each species' required habitat and determinations of the potential to occur on-site based on numerous considerations and documentary materials. A species-by-species discussion is provided within Tables 1 and 2 with Appendix B of the BRA.

Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above.

Comment LIUNA-8
The commenter generally summarizes the findings from Dr. Shawn Smallwood, PhD in response to the Draft EIR.

Response to LIUNA-8
These comments are noted. To the extent this comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is necessary.

With respect to specific comments, following are responses are provided. First, with respect to the way in which the site surveys were conducted, the commenter suggests the survey process was "inadequate" due to its timing. The site survey was conducted by a qualified Biologist who specializes in this the biological resources of this area. The timing and scope of the survey reflected standard industry practice; specifically, a stand-alone BRA was preperared based on industry standard methodologies, and available as Appendix C of the Draft EIR. The objective of the survey was not to exhaustively search for every potential species occurring within the project site, but rather to ascertain general site conditions and identify potentially suitable habitat areas for special-status plant and wildlife species. Special-status or unusual biological resources identified during the literature review were confirmed during the reconnaissance-level survey for mapping accuracy. Based on the foregoing and as otherwise detailed in Section 3.4, Biological Resources, of the Draft EIR and the BRA attached thereto, this site survey is adequate for purposes of this CEQA review.

The commenter also states that the site survey is inadequate for failing to explain how it conducted habitat assessments. Contrary to the foregoing assertions, the site survey and related BRA explains how the habitat assessments were conducted. As detailed more fully therein, Section 3 of the BRA describes the methodlogy used to carry out the field survey and subseqent report. Methods included a literature review of nine USGS quadrangles in order to compile a list of threatened, endangered, and otherwise special-status species previously recorded on-site and the surrounding area; review of City and County tree ordiances, a review of areial photography to identify any potential natural drainge features and water bodies.

Third, the commenter asserts that the BRA "improperly screened out many special-status species from further consideration" based on an improper reliance on specified databases. As explained further in Section 3.4, Biological Resources, of the Draft EIR and the BRA attached thereto, the analysis employed a thoughtful and robust methodology, consistent with industry standard practices, to identify special-status species that could potentially be impacted by the project. Based on this methodological approach, a database search using California Natural Diversity Database (CNDDB) and CNPSEI was conducted within the *Goshen, California* USGS 7.5-minute Topographic Quadrangle Map and its eight neighboring quadrangles resulted in 32 special-status species being initially considered, but due to a lack of potential habitat and other considerations, all but five were determined to warrant further consideration. This evalution included each species' required habitat and determinations of the potential to occur on-site based on numerous considerations and documentary materials. A species by speices disucssion is provided within Tables 1 and 2 with Appendix B of the BRA.

It should be noted that the California Supreme Court has emphasized an EIR need not achieve "technical perfection or scientific certainty." Sierra Club v. County of Fresno (2018) 6 Cal.5th 502, 515. Instead, CEQA requires "adequacy, completeness, and a good faith effort at full disclosure." (CEQA Guidelines § 15003(i)). The appropriate degree of specificity and analysis a given issue warrants depends on "the nature of the project and the rule of reason." North Coast Rivers Alliance v. Kawamura (2015) 243 Cal.App.4th 647, 679; see also CEQA Guidelines Section 15151 ("An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible.").

"CEQA does not require a lead agency to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project. The fact that additional studies might be helpful does not mean that they are required." *Ass'n of Irritated Residents v. Cty. of Mader*a, (2003) 107 Cal.App.4th 1383, 1396, 133 Cal. Rptr. 2d 718. Consequently, CEQA does not contain a blanket requirement that agencies conduct focused or protocol-level surveys. See Id. Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above.

See also Response to LIUNA-7.

Comment LIUNA-9
The commenter generally summarizes comments to the Draft EIR with respect to habitat loss, movement impacts, traffic mortality, and cumulative impacts regarding biological resources.

Specifically, with respect to habitat loss, the commenter states that the Draft EIR fails to fully account for the impacts associated therewith, including in terms of immediate numerical decline as well as permanent loss of productive capacity. The commenter then references a calculation that project-related "loss of habitat for bird nests would result in 21,645 birds born per year," which would be "very substantial and highly significant" but states this impact was not disclosed or mitigated in the Draft EIR.

Response to LIUNA-9
To the extent this comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is necessary. See also Responses to LIUNA-7 and LIUNA-8.

Regarding purported habitat loss due to the proposed project, the key State resource agency, CDFW, has commented on the Draft EIR regarding the proposed project. Except for minor species-specific revisions proposed to specific mitigation measures, CDFW did not set forth any concerns regarding the Draft EIR's description of the environmental setting and/or its impact analysis. Additionally, the commenter's formula for quantifying habitat loss is not recognized by industry professionals as a proper methodology for assessing habitat loss under CEQA and is based on speculation, which is not cognizable under CEQA (CEQA Guidelines §§ 15145; 15384). Instead, the Draft EIR reflects feasible and appropriate measures specific to migratory and nesting birds and roosting bats that are consistent with standard industry practice, which would become binding mitigation measures via enforceable conditions of approval (see MM BIO-1a, MM BIO-1b, MM BIO-1c, MM BIO-1e, and MM BIO-1f). On the contrary, the Draft EIR addressed at length the potential for the project to result in the loss of suitable habitat for a variety of special-status species. For the reasons set forth therein, and in the BRA attached thereto, suitable habitat exists on-site for relatively few special-status species. For those, the Draft EIR discussed and fully disclosed these potential impacts as significant and identified feasible mitigation to ensure impacts would be reduced to less than significant (see MM BIO-1a through MM BIO-1f). MM BIO-1a through MM BIO-1f mitigate for potential impacts to Swainson's hawk, burrowing owl, Crotch's bumblebee, San Joaquin kit fox, and American badger through several methods, including pre-construction surveys, project safety procedures to be implemented during project construction, and the implementation of buffer zones if any of these species are found. If any of these species are found to be on-site prior to project-related activities, implementation of MM BIO-1a through MM BIO-1f would reduce impacts to these species to a less than significant level under CEQA. It should be noted that CDFW reviewed these mitigations and did not find them inadequate to mitigate impacts to these species. Note that MM BIO-1d has been revised to further meet CDFW standards.

With respect to the specific comment regarding the loss of productive capacity that would result in the predicted loss of "21,645 birds born per year," the commenter does not define what is meant by the protection of "productive capacity." To the extent it is meant to reference the future number of species that could potentially be birthed on the site, this is not a threshold or topic area under CEQA and is therefore not a necessary component that will be addressed in this response. Regarding purported habitat loss due to the project that would potentially result in the loss of production capacity, the key State resource agency, CDFW, has commented on the Draft EIR regarding the proposed project. Except for minor species-specific revisions proposed to specific mitigation measures, CDFW did not set forth any concerns regarding the Draft EIR's description of the environmental setting and/or its impact analysis. Additionally, the commenter's formula for quantifying habitat loss is not recognized by industry professionals as a proper methodology for assessing habitat loss under CEQA and is based on speculation, which is not cognizable under CEQA (CEQA Guidelines §§ 15145; 15384). Instead, the Draft EIR reflects feasible and appropriate measures specific to migratory and nesting birds and roosting bats that are consistent with standard industry practice, which would become binding mitigation measures via enforceable conditions of approval (see MM BIO-1a, MM BIO-1b, MM BIO-1c, MM BIO-1e, and MM BIO-1f).Based on the information presented above, the lead agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above.

Comment LIUNA-10
The commenter generally summarizes comments to the EIR.

In terms of specific comments on wildlife corridors, the commenter states that the Draft EIR applied improper standards in determining there were less than significant impacts on wildlife movement. The commenter goes on to note that a project can have a significant impact on wildlife movement "regardless of whether the movement is channeled through a corridor." The comment states that the project would "cut wildlife off from one of the last remaining stopover and staging opportunities in the project area" and this constitutes a significant impact.

Response to LIUNA-10
These comments are noted. They are general in nature and do not include any specific evidence to support the allegations that the analysis is incomplete or inaccurate. Based on the information presented above (Responses LIUNA-6 through LIUNA-9), the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above. For the reasons set forth herein, the commenter's suggested mitigation is not required under CEQA, and the Lead Agency has determined to rely upon its biological resource experts in terms of the methodology and conclusions set forth in the Draft EIR and related BRA. Please also refer to Responses to LIUNA-9. The Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required.

To the extent Response to LIUNA-10 is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is necessary.

As a preliminary matter, the Draft EIR and related BRA do not limit the analysis with respect to potential impacts to wildlife movement to formal "corridors." As detailed more fully in the Draft EIR and related BRA, while the project would result in the loss of a certain amount of local wildlife habitat, it would not significantly interfere with wildlife movement for migratory birds and bats. For example, the Draft EIR and related BRA recognize that extensive suitable alternative stopover habitat (e.g., undeveloped) for migratory birds can be found to the north and west of the project site. In fact, these other areas are less fragmented, isolated, and less prone to disturbance from human activities and therefore may be more desirable for some migratory species.

With respect to the movement of any terrestrial species or species with limited dispersal ability, as discussed in the Draft EIR and related BRA, such movement is likely currently inhibited given the semi-urban location of the project site. Areas directly south and east of the project site are composed of extensive industrial, commercial and residential developments. The project site does not contain habitat features such as riparian corridors that could function as wildlife corridors or otherwise facilitate wildlife movement. Importantly, the project site is not within a designated wildlife corridor based on the CDFW's Essential Connectivity Areas geospatial data set, which uses habitat modeling to identify areas of land with value as wildlife corridors. As such, contrary to the commenter's assertions, the project site is not considered to be "critically important" to wildlife movement.

Lastly, the proposed project would not remove all trees on-site. For example, a large oak tree near the boundary of the project site would remain after construction. Additionally, numerous smaller ornamental trees are planned for planting as part of project landscaping which would continue to support roosting birds.

The Draft EIR and related BRA includes a detailed discussion of wildlife movement on the project site during existing conditions and the potential impacts of the project thereon. As described more fully therein, most of the project site consists of actively managed orchards and does not contain habitat features such as riparian corridors that could function as wildlife corridors. Additionally, the project site is surrounded by active roadways, active agriculture, industrial, and residential development, all of which impede the movement of wildlife and limit the use of the project site as a potential corridor for wildlife movement.

Contrary to the commenter's assertion, the Draft EIR and related BRA considers the proposed project's potential impact on species movement in Section 3.4, Biological Resources, Impact BIO-4. Specifically, Section 4.5 of the BRA details how the project site is not a wildlife movement corridor. The BRA states, "Most of the project site consists of actively managed orchards and does not contain habitat features such as riparian corridors that could function as wildlife corridors. Additionally, the project site is surrounded by active roadways, active agriculture, industrial, and residential development, all of which impede the movement of wildlife and limit the use of the project site as a potential corridor for wildlife movement. The project site is not within a known wildlife corridor." Therefore, the site would not attract special-status species that would be subject to traffic movement, lowering the potential for traffic collisions.

Moreover, CDFW's Terrestrial Connectivity Map identifies the project site as a 1, having limited connectivity opportunity (measured on a scale of 1-5, with 5 being an irreplaceable and essential corridor) (see Figure 2-1: Terrestrial Connectivity Map). The project site is not within a known wildlife corridor. Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above.

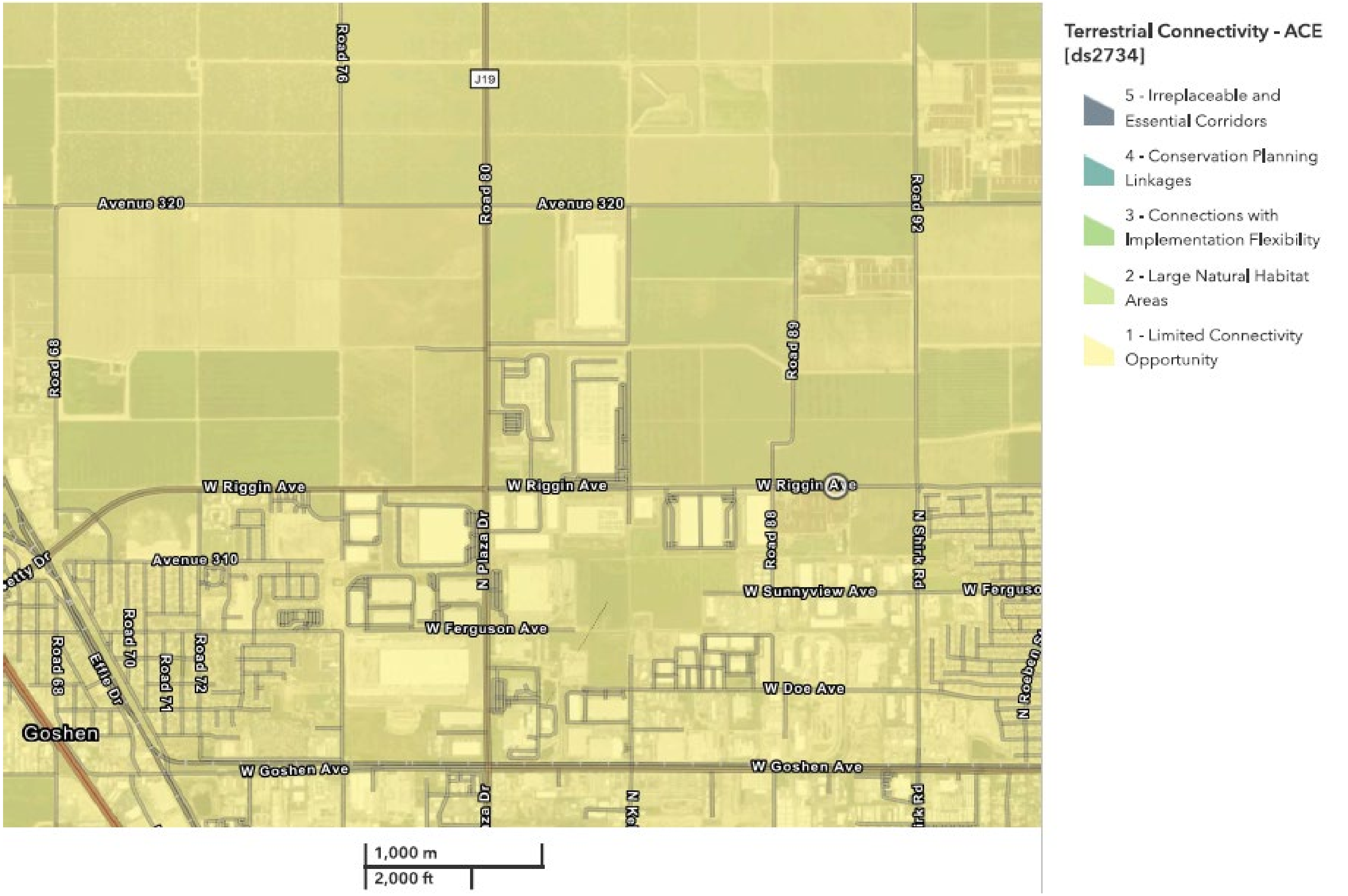

Figure 2-1: Terrestrial Connectivity Map

Comment LIUNA-11
The commenter makes the general statement that the Draft EIR fails to address the impacts to wildlife due to traffic collisions and provides estimates of species' casualties based on the reported findings from Shawn Smallwood, PhD. The commenter concludes that this is a significant impact that must be disclosed, discussed, and mitigated in a recirculated Draft EIR.

Response to LIUNA-11
To the extent this comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

With respect to specific comments, the following responses are provided. In terms of wildlife mortality, this comment is noted. The photographs and related assertions included in this comment are not from the project site and thus any asserted relevance to this analysis would be speculative. In fact, the traffic mortality study cited in this comment was conducted in Contra Costa County, which is hundreds of miles away from Tulare County; the commenter's numerous assumptions in applying that study's conclusions to the proposed project are not supported by substantial evidence in the record but rather reflect mere speculation. In summary, the mathematical calculations provided are based on speculative assumptions from non-related projects far outside Tulare County and the project site.

As discussed above and detailed more fully in the Draft EIR and related BRA, potential impacts to wildlife movement due to the proposed project are considered at length. The project site is not considered to be within a designated wildlife corridor. Instead, the project site is surrounded by active roadways and existing industrial, commercial, and residential development that limits species movement on and through the project site. The site plan and design of the proposed project would not encourage species to traverse internal roadways to reach habitat since, among other things, the site does not contain undisturbed habitat or vegetation that provides habitat value for a majority of special-status species. Instead, the site plan would mitigate for any special-status species anticipated to occur on-site and account for functional groups such as nesting birds. As such, the construction and operation of the proposed project is not anticipated to result in significant impacts to the movement of any species, as discussed in Impact BIO-4.

The commenter provides a model that is based on conjecture and without any substantive evidence to support the assertion. The project site is generally surrounded by other large industrial developments and does not propose a project that would create traffic volumes that exceed other surrounding developments. Moreover, CDFW was consulted regarding the proposed project and that agency did not provide a comment regarding traffic collisions. The species-specific mitigation measures proposed in the Draft EIR would be sufficient to mitigate the proposed project's impacts on species and habitat. Moreover, a traffic analysis regarding the potential for wildlife collisions is not required under CEQA; rather, impacts to special-status species are fully addressed under Draft EIR, Section 3.4, Biological Resources, Impact BIO-1. The CEQA Guidelines require recirculation only when "significant new information" is added to an EIR after the Draft EIR is released for public review but before certification of the Final EIR. (PRC § 21092.1; 14 CCR § 15088.5(a)). Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above

See also Response to LIUNA-10.

Comment LIUNA-12
The commenter makes the general statement that the cumulative impact analysis is flawed because it is based on flawed premises about the lack of presence of special-status species and the project site's lack of importance for wildlife movement, as well as an improper reliance on compliance with existing laws and regulations to find a less than significant impact. The commenter asserts that the six biological mitigation measures, MM BIO-1a through MM BIO-1f are not adequate to mitigate for the project's impacts. Because of the foregoing, the commenter concludes the determination of less than significant cumulative impacts is not supported by substantial evidence.

Response to LIUNA-12
The commenter contends that the identified mitigation measures are inadequate because they rely on pre-construction surveys, which alone, may not be sufficient mitigation, and states that the Draft EIR improperly treats these pre-construction surveys as protocol-level surveys. The commenter then references proposed mitigation that would require: (1) protocol-level surveys prior to pre-construction surveys; (2) the preservation of open space as close to the project site as possible to compensate for habitat loss; and (3) compensatory mitigation payments for wildlife research and rehabilitation.

To the extent this comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is necessary.

However, for the reasons described in detail in Section 3.4, Biological Resources, of the Draft EIR and related BRA, the identified mitigation measures adequately avoid, reduce and/or lessen the identified significant impacts. MM BIO-1a through MM BIO-1f mitigate for potential impacts to Swainson's hawk, burrowing owl, Crotch's bumblebee, San Joaquin kit fox, and American badger through several methods, including pre-construction surveys, project safety procedures to be implemented during project construction, and the implementation of buffer zones if any of these species are found. If any of these species are found to be on-site prior to project-related activities, implementation of MM BIO-1a through MM BIO-1f would reduce impacts to these species to a less than significant level under CEQA. It should be noted that CDFW reviewed these mitigations and did not raise any issues regarding their adequacy to mitigate impacts to these species. Note that MM BIO-1d has been revised to further meet CDFW standards.

As a preliminary matter, it is important to note there is concurrence with the premise that pre-construction surveys would not necessarily be sufficient, on their own, to fully mitigate identified impacts. Rather, such surveys are a first step; i.e., intended to confirm presence/absence of a species. To the extent presence is determined as a result of pre-construction surveys, then further steps would need to be taken, in the form of feasible protective measures, in order to reduce impacts.

Accordingly, the mitigation measures referenced by the commenter go beyond simply requiring pre-construction surveys, and instead also include other detailed provisions to ensure adequate mitigation in the event special-status species are located on-site during ground/vegetation disturbance and/or construction activities. Furthermore, the City has agreed to revise, and the project applicant has agreed to implement, certain mitigation measure refinements as suggested by CDFW, which would further ensure impacts are fully mitigated. There is no requirement under CEQA or otherwise for the project applicant(s) to implement the commenter's suggested mitigation. CDFW reviewed the Draft EIR and had three very minor comments. CDFW did not propose any additional mitigation measures that were not already include in the Draft EIR, rather they provide minor comments on mitigation that was already contained within the Draft EIR. Further, the applicant addressed their comments in this document. Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above.

See also Responses LIUNA-6 through LIUNA-12.

Comment LIUNA-13
The commenter purports to set forth legal requirements under CEQA with respect to the environmental topic area of energy. The commenter then claims that an analysis that simply relies on the project's compliance with the California Building Energy Efficiency Standards does not constitute an adequate analysis of energy, and that the Draft EIR should discuss renewable energy features and provide rooftop solar panels. The commenter asserts that the proposed approach, which assumes the project would be required to either (1) install rooftop solar panels or (2) construct buildings that structurally can accommodate future solar panels is inadequate. The commenter claims that installation of rooftop solar panels would also ensure the project complies with the City's CAP.

Response to LIUNA-13
To the extent the comment makes general assertions but does not raise any specific project-related environmental issues under CEQA, and therefore no response is necessary.

With respect to the commenter's assertion regarding the adequacy of the energy impact analysis, contrary to the its assertion, the Draft EIR adequately analyzed and disclosed the project's construction and operation energy impacts, which included, among other things, consideration of opportunities for on-site renewable energy generation.

As shown in Section 3.6, Energy, the Draft EIR provided a thoughtful analysis to determine whether the project would exceed the applicable significance thresholds. Specifically, in addition to discussing compliance with the California Building Energy Efficiency Standards and the other applicable provisions of a comprehensive regulatory framework that governs development in California and which reflects some of the most stringent requirements in the nation, the analysis also disclosed the amount of fuel that would be used by construction equipment and vehicle trips, energy use of an construction office trailer, energy consumption from the proposed building operations, and fuel consumption from trucks and passenger vehicles. The analysis also evaluated relevant energy efficiency laws and regulations such as, among others, ARB's idling limitation for on-road and off-road equipment, Visalia Municipal Code provisions related to construction hours and the installation of short- and long-term bike facilities, and the proposed project's TDM measures, all of which would reduce the project's energy consumption and promote energy efficiency.

The latest California Building Energy Efficiency Code went in effect on January 1, 2023. The latest requirements for solar panel installation (Section 140.10) are more stringent than the original MM GHG-2(a), which, crafted per SJVAPCD suggestion in their NOP comment letter dated September 28, 2022, only required the project applicant to install one of the following: (i) rooftop photovoltaic solar panels, (ii) solar-ready rooftop design that shall support the installation of rooftop photovoltaic panel, as feasible, or (iii) roofing material contains light coloring with a solar reflective index greater than 78. Therefore, MM GHG-2(a) has been revised to reflect the solar panel installation obligation under State law per California Building Energy Efficiency Code Section 140.10.

The proposed project would be required to comply with California Building Energy Efficiency Standards and CALGreen Building Code Standards. The foregoing include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), and indoor and outdoor lighting, are widely regarded as the some of the most advanced and stringent building energy efficiency standards in the country. Moreover, as the Draft EIR explains, the proposed project would be required to incorporate electrical conduit to facilitate future installation of EV charging infrastructure. In addition, as specified in Subchapter 6, Part 6 of the Title 24 standards, the proposed project would be required to either include rooftop solar systems or design the proposed buildings to structurally accommodate future installation of a rooftop solar system. Among others, the project would be required to adhere to California Building Energy Efficiency Standards Section 140.10, which requires the installation of a solar photovoltaic system for all proposed land uses unless otherwise exempt per Section 140.10. The required solar photovoltaic size is calculated based on the project's climate zone, amount of conditioned space, and space usage.[5] As such, the Draft EIR concluded that the design of the proposed project would facilitate the future commitment to renewable energy resources.

With respect to energy associated with project-related vehicle trips, the proposed project would include the installation of bicycle parking fixtures consistent with the Visalia Municipal Code requirements for new development, encouraging the use of alternative modes of transportation for worker commutes. Regional access to the project site is provided via State Route (SR) 99, which is 0.85 mile to the east of the project site. As a result, the proposed project would be located within 1 mile of a major transportation corridor that provides interstate regional access. Moreover, as discussed in Section 3.15, Transportation, the proposed project would be required to implement various TDM measures that would contribute to fuel savings through incentives for project staff to utilize nonmotorized transportation modes. Furthermore, the proposed project would generate vehicle trips that would travel to other cities and states in order to deliver goods and the location of the proposed project would not result in excessive or wasteful vehicle travel.

The Draft EIR concluded that the proposed project would be consistent with CAP actions related to Energy by including MM GHG-2a which requires installation of solar photovoltaic system to increase

5 To present a conservative estimate of emissions, the Draft EIR did not take any reductions related to the inclusion a solar photovoltaic system.

generation and use of renewable energy. In addition, the proposed project would be consistent with other CAP actions related to reduction energy consumption such as, including drought-tolerant landscaping that requires less water demand and consequently less electricity to convey that water to the project site.

Based on the foregoing, the Draft EIR concluded energy impacts would be less than significant.Therefore, the Draft EIR properly analyzed the project's energy impacts, including opportunities for the generation of on-site renewable energy soursces and the proposed project would be implementing solar photovoltaic system that is being requested by the commenter. The Lead Agency is of the opinion that this Draft EIR has sufficiently complied with State CEQA Guidelines. The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA, and no further analysis or revisions are required.

Comment LIUNA-14
The commenter provides a summary of the HRA from the Draft EIR and claims that health risk impacts could not be verified by the commenter's consultant and may thus be underestimated. Specifically, the comment asserts that the Draft EIR and supporting documentation do not provide the values used in the HRA for ASF and FAH.

Response to LIUNA-14
As shown in Section 3.3, Air Quality, pages 3.3-54 through 3.3-57, a screening analysis was prepared in accordance with Section 8.4.2 Ambient Air Quality Screening Tools of the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts.

As described in the Draft EIR, District Rule 2201 requires that an AAQA be conducted for a project when that project's maximum daily emissions exceed 100 pounds for any single criterion or precursor pollutant after incorporation of all mitigation. The District's Guide for Assessing and Mitigating Air Quality Impact (GAMAQI) includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an AAQA. The criteria pollutants of concern for localized impact in the Air Basin are PM_{10}, $PM_{2.5}$, NO_X, and carbon monoxide (CO).

An analysis of maximum daily emissions during construction and operation was conducted to determine whether emissions would exceed the 100 pounds per day screening threshold for any pollutant of concern. NOx, PM_{10}, and $PM_{2.5}$ during project construction and operation are shown to be below 100 pounds per day with mitigation. See Draft EIR Tables 3.3-16, 3.3-17, and 3.3-18. Therefore, an AAQA screening analysis was appropriately prepared in accordance with SJVAPCD guidance. Detailed calculations can be found in Appendix A of Draft EIR Appendix B Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report. As noted in the Draft EIR, localized emissions of CO would remain significant even after incorporation of all feasible mitigation measures for both construction and operations.

See Response to GSEJA-7 for further justification for the methodology used for the HRA.

No further response is needed.

Comment LIUNA-15
The comment restates the summary of its general position is that the Draft EIR fails to comply with CEQA.

Response to LIUNA-15
The comment is noted for the record. Please see Response to LIUNA-1. No further response is necessary.

Comment LIUNA 16
The commenter notes his qualifications and credentials as a Biologist. The commenter then makes the general statement that the existing environmental settings within the Draft EIR are deficient and that the impacts analysis is incomplete and inaccurate.

Response to LIUNA-16
These comments are noted. They are general in nature and do not include any specific evidence to support the allegations that the analysis is incomplete or inaccurate. Based on the information presented above (see Responses LIUNA-6 through LIUNA-12), the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above.

Comment LIUNA-17
The commenter describes the environmental conditions and lists species observed during his two site visits. The commenter included photos that were purportedly taken during the "site visits" and a species table that asserts to be predictive of the potential species present within the project site.

Response to LIUNA-17
The commenter indicates that they were on-site and the photographs included in this comment were clearly taken from within the site. Neither the commenter nor any individual from LIUNA were granted permission to access the private project site.

Regarding the commenter's wildlife observations during their unpermitted access none of commenter's observations, if accurate, would result in revisions to the conclusions in the Draft EIR, which remain accurate for the reasons set forth therein and in these Responses to Comments. No further response is required.

The commenter describes the presence of 12 special-status species supposedly observed on-site during purported "site visits." The Lead Agency takes no position as to the accuracy of the purported species observed during the unauthorized and unpermitted access. Additionally, Photo 6 is from 2022 from an unidentified site; this photo could have come from any site in the central valley, and there is no evidence provided to indicate the photo was taken on the project site.

Regarding the potential for each of the referenced species to occur on-site, see Appendix B of the BRA, which details the habitats, occurrences, and potential for each of the special-status species identified to be present within the site. The table details why the anticipated potential for each of these species to occur on-site were either addressed further in the BRA or was “None.” Additionally, all surveys were conducted based on industry standards and were not commented on in CDFW’s review. CDFW is the acting Trustee and/or Responsible Agency to provide biological expertise to review and comment on CEQA environmental review.

Moreover, even assuming the accuracy of the commenter’s observations, the protection of these species is covered under MM BIO-1d with species-specific mitigation; also, there is additional species-specific mitigation for Swainson’s hawk and burrowing owl described under MM BIO-1a through MM BIO-1c. The commenter’s reported observations are consistent with the results disclosed in the Draft EIR and do not trigger any changes to the analysis to ensure adequate disclosure and mitigation. The commenter’s suggestion that predictive modeling is necessary for an adequate analysis under CEQA is not accurate; the method of predictions set forth in the comment letter reflects speculation and is not a recognized method pursuant to industry standards for identifying potential species on a site for CEQA purposes. CEQA does not require speculation in describing the relevant environmental setting.

The commenter also alleges that a year of surveys would be needed to accurately report the number of species on the project site. However, as discussed above in Response to LIUNA-8, such an expansive approach to surveying is not required by CEQA and is not consistent with standard industry practices; instead, the methodology utilized in the Draft EIR for characterizing the existing environmental setting, including the methodology utilized in conducting the reconnaissance-level surveys, is appropriate. The methodologies utilized in the Draft EIR, including conducting the surveys, are robust by taking into account numerous types of information, data, and expertise and is based on industry-established standards.

The commenter does not provide evidence to contradict the conclusions of the Draft EIR Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA. Therefore no further analysis or revisions are required except for clarifications as noted above.

Comment LIUNA-18
The commenter first generally summarizes requirements under CEQA in terms of the scope of information necessary to accurately characterize the existing environmental setting (including the relevant regional setting), which is then used as the basis for opining as to the potential impacts of the project being considered. The commenter then asserts that the Draft EIR’s analysis, and the related steps taken, were “incomplete and misleading.”

Response to LIUNA-18
As an example of the Draft EIR’s inadequacy, the commenter points to the description and conclusions set forth int the BRA regarding a valley oak (that has a substantial portion of its canopy overhanging the project site). The commenter disagrees with the conclusion there are no roots south of Modoc Ditch. To the extent this statement is general in nature and does not raises any specific project-related environmental issues under CEQA, no further response is required.

Regarding its specific comment about the valley oak, the commenter's assertion about the nature and scope of the root zone for the above-referenced valley oak is speculative. As a preliminary matter, the Draft EIR and related BRA identify the valley oak, although rooted on adjacent property, as having a substantial portion of its canopy overhanging onto the project site, and characterize it a sensitive biological resource due to its local rarity, the locally unique ecosystem services it provides (including shading, nesting, and roosting and foraging opportunities, nutrient cycling, and others), and its status as a protected tree under the City's Oak Tree Preservation Ordinance. Specifically with respect to the root zone, the relevant conclusions set forth in Appendix C, Biological Resources Supporting Information, to the Draft EIR are as follows: the roots of the on-site valley oak "are on the north side of the ditch away from construction and would avoid impacts as a result." Furthermore, compliance with applicable laws and regulations, including those set forth in the City's Oak Tree Preservation Ordinance (Municipal Code Chapter 12.24, Article 4 Oak Tree Preservation), which prevents any encroachment into the canopy dripline of the oak trees during construction, regardless of root location, would ensure impacts to the oak tree in question (which is a "protected" tree under the Ordinance) are less than significant.

The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA. Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above.

Comment LIUNA 19
The commenter first generally summarizes requirements under CEQA in terms of the scope of information necessary to accurately characterize the existing environmental setting, which is then used as the basis for opining as to the potential impacts of the project being considered. The commenter again asserts the timing of the survey was not proper and thus resulted in inaccurate survey results. Finally, it states that it is unclear how "general site conditions" were assessed and how potential suitable habitats for species were identified. The commenter also argues that no gradient of habitat suitability is described, nor is there any evidence of a check-off sheet between known habitat associations and what the Biologist saw on the project site. The commenter also attacks the methodology used for performing biological reconnaissance surveys.

Response to LIUNA-19
To the extent LIUNA-19 is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required. See Response to LIUNA-8, above, regarding survey timing and scope. With respect to the commenter's suggestion that habitat associations or ideally measured intensities of use should have been used, please refer to Response to LIUNA-17, which details how Appendix B of the BRA addresses habitats, occurrences, and potential for each of the special-status species identified to be present within the site, essentially offering a check-off sheet between known habitat associations and what the Biologist saw on-site. The table details why the anticipated potential for each of these species to occur on-site was either addressed further in the BRA or was "None" based on a lack of suitable habitat.

As noted in Response to LIUNA-8 above contrary to the commenter's assertion, the BRA describes how "general site conditions" as well as the basis for determining the suitability of the habitat for specific species were assessed.

The baseline for assessing general site conditions and potential suitable habitat for species on-site is built on established industry standards and implemented pursuant to accepted protocols by qualified Biologists with significant expertise in this arena. As explained in the Draft EIR, the analysis is based on, in part, a robust review of relevant literature and databases as well as a site-specific biological reconnaissance survey performed on July 5, 2022, and a subsequent site-specific, comprehensive BRA (included in Appendix C of the Draft EIR). The commenter suggests that the survey did not accurately detail the species on-site. However, as specifically noted in the BRA, the objective of the survey was not to exhaustively search for every potential species that could occur within the project site. (See Appendix C, Biological Resources Supporting Information, p. 16.) Instead, consistent with industry standard practice, the survey was performed consistent with established protocols to ascertain general site conditions and confirm likelihood of presence based on the nature of existing conditions, supplemented by the literature review, database searches, and expertise of the qualified Biologist in terms of habitat features that are required for specific species, none of which are dependent on time of day or month. As such, the Draft EIR properly describes the environmental setting for purposes of CEQA, and the commenter's criticisms regarding the timing of and/or approach used in the survey do not raise relevant issues regarding the general site conditions. The information and evaluation in Appendix C to the Draft EIR provide a scientifically sound basis for establishing existing conditions necessary for an adequate analysis of potential species impacted. Consistent with industry standards and based on a thoughtful review of relevant literature and databases, as well as the experience and knowledge of an expert Biologist, habitat was assessed based on a combination of literature review, aerial photographs, soil surveys, and a site visit. Additionally, the Special-status Species Evaluation Tables, located in Appendix C.2 of the Draft EIR, documents in detail special-status species recorded within the *Goshen, California* USGS 7.5-minute Topographic Quadrangle Map and its eight neighboring quadrangles by the CNDDB and CNPSEI. This table depicts these species' required habitats and potential to occur within the project site based on habitat types observed on-site as well as other relevant information, data, and materials, as discussed above. Lastly, the methodology utilized in the Draft EIR for conducting the biological resources analysis, including, without limitation, the performance of the surveys, is appropriate and can be properly relied upon to provide accurate results for the reasons set forth above and therein. The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA.

Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above.

Comment LIUNA 20
The commenter first generally summarizes the purpose of literature and database review when conducting a CEQA analysis and then states its understanding of the scope of the "desktop review" outlined in the BRA and Draft EIR. The commenter then asserts that "no explanation was provided of

how these data bases were used to determine which species warranted analysis of occurrence likelihoods" and then states that clearly too few (only 12) species were evaluated. The commenter also argues that if [CDFW California Natural Diversity Database] CNDDB and Information for Planning and Consultation (IPaC) database were used as methods to screen out species for analysis of occurrence potential, this was flawed. The commenter then asserts, based on personal analysis, that the project site likely supports multiple special-status species of wildlife, including tricolored blackbird, burrowing owl, and loggerhead shrike. The commenter ultimately states that the Draft EIR should be withdrawn from circulation and revised.

Response to LIUNA-20

These comments are noted for the record. The list of special-status species considered in the Draft EIR was determined based on established protocols reflecting standard industry practice for the preparation of an EIR, including a literature search of special-status species with potential to occur in the area along with review and consideration of other relevant documentation, materials, and data, followed by observations by expert Biologists during the July 5, 2022, field survey of the project site. The literature search included, among other things, a search of the CDFW CNDDB, which is included in Appendix C of the Draft EIR. The CNDDB was only one of several databases utilized and was not solely relied upon in making the determinations set forth in the Draft EIR and related BRA in terms of determining potential presence. The CNDDB search queried all special-status species recorded in the *Goshen, California* USGS 7.5-minute Topographic Quadrangle Map and its eight neighboring quadrangles. Seventeen plant and 15 wildlife (not 12, as the commenter states) special-status species were evaluated within the Draft EIR and related BRA. The evaluation included the species' status, required habitat types and features, and potential to occur within the project site, as well as supporting analysis and rationale. Based on the field survey and background research, several special-status wildlife species, including Swainson's hawk, burrowing owl, Crotch's bumblebee, San Joaquin kit fox, and American badger, were determined to have the potential to occur within the project site, and thus significant impacts could result with implementation of the proposed project, thereby triggering required mitigation, as described more fully therein. With respect to special-status plant species, as detailed in the BRA, none of the special-status plant species were determined to have potential to occur on-site, primarily due to the absence of suitable habitat, past and current land use, and the extent and frequency of ground disturbance.

No special-status birds were observed during the site visit. In addition, it is worth noting that the field survey conducted by the project's consultant as a part of the Draft EIR and the commenter's unauthorized site visit took place during different times of the year, February and April respectively. It is possible that the species observed on-site may be different during these months due to migration patterns, differences in wildlife species life history, weather conditions and the availability of food resources. Consequently, general biological surveys in support of CEQA tend to focus on wildlife habitat to assess potential for species to occur while noting observed species during site visit(s) to further support the conclusions set forth in the analysis. CEQA does not require a lead agency to conduct every recommended test and perform multiple research efforts to evaluate the impacts of a proposed project. The fact that additional biological studies might be helpful does not mean that they are required." *Ass'n of Irritated Residents v. Cty. of Madera*, (2003) 107 Cal.App.4th 1383, 1396, 133 Cal. Rptr. 2d 718. Consequently, CEQA does not contain a blanket requirement that agencies conduct multiple biological surveys. An appropriate biological survey was conducted at the project site. Given that special-status wildlife reported from the region that may be resident on the subject property the survey methodology was sufficient to detect all such special-status species that may occur. Given the mobility of birds, particularly special-status raptor species, aerial surveys have limited utility to judge site characteristics.

Based on the expertise of Biologist conducting the survey and other relevant information, documentation, data, and materials, the City, as Lead Agency, has elected to rely upon its experts' conclusions and analysis, supported by substantial evidence, and therefore does not agree that tricolored blackbird or loggerhead shrike (or other species noted by the commenter) are likely to occur on the project site. As Lead Agency, the City has discretion to choose among differing expert opinions. (CEQA Guidelines § 15151). Table 2 of the BRA, included in Appendix C of the Draft EIR, explains that these (and other) species do not have the potential to occur due to the lack of suitable habitat. Recent occurrences of these species may have been identified by the commenter; however, this does not dictate a likelihood to occur on-site if suitable habitat is absent. For example, the tricolored blackbird prefers farm fields, pastures, and cattle pens, all of which the project site lacks. Additionally, loggerhead shrike prefers to build nests on stable branches in dense shrubs or trees, usually well-concealed. The project site, which is heavily disturbed, does not contain the habitat types to support either species.

Moreover, it is noted that CDFW (who acts as a Trustee and/or Responsible Agency and provides biological expertise to review and comment on CEQA environmental review), did not require mitigation measures for tricolored blackbird or loggerhead shrike or otherwise criticize the Draft EIR for not identifying these (or other) species as being significantly impacted by the project.

The commenter indicates that he observed several birds recognized as federal Bird Species of Conservation Concern (BCC) during his two site visits that were previously not recorded or observed during biological assessment of the project site. A majority of these species are not listed under the California Endangered Species Act (CESA) or as a California Species of Special Concern (SCC) recognized by CDFW or otherwise considered as special-status species that would trigger review under CEQA. As a result, the commenter's reported observations, even if accurate, would not change the Draft EIR's analysis of and/or conclusions regarding impacts of the proposed project to special-status wildlife. Furthermore, the Draft EIR discloses potential impacts to protected bird species under Migratory Bird Treaty Act (MBTA) and identifies feasible mitigation to reduce such impacts to a less than significant level, as set forth in MM BIO-1e.

The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA. Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA and therefore does not trigger recirculation of the Draft EIR under CEQA Guidelines Section 15088.5. No further analysis or revisions are required.

Section 3.4.4 of the Biological Resources Section of the Draft EIR describes the methodology utilized to conduct this analysis, which went well beyond simply relying on the CNDDB. Instead, the methodology used included review of relevant existing documentation with respect to literature review, topographical maps and aerial photographs, soil surveys, and a comprehensive database search that included, among others, the CNDDB; in addition, a reconnaisance-level site survey was conducted by a qualified Biologist. Specifically with respect to the databases considered, the qualified Biologist searched the CDFW CNDDB, the USFWS IPaC database, and the CNPSEI of Rare and Endangered Vascular Plants of California database for the *Goshen, California* USGS 7.5-minute Topographic Quadrangle Map and its eight neighboring quadrangles. The CNDDB Biogeographic Information and Observation System (BIOS 5) database was used to determine the distance between known recorded occurrences of special-status species and the project site.

Accordingly, the Draft EIR's analysis is consistent with the comment; i.e., it does not rely only on the CNDDB but rather considered multiple sources of information, materials, site review, and databases to determine the potential for special-status species to be present on-site and potentially impacted by the proposed project. Furthermore, the Draft EIR accounts for pre-construction surveys for multiple special-status species, nesting birds, and roosting bats through MM BIO-1a through MM BIO-1f. The Lead Agency is of the opinion that this Draft EIR and the public review process has sufficiently complied with State CEQA Guidelines. The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA.

See also Response to LIUNA-6 through LUINA-8.

Comment LIUNA-21
The commenter first generally summarizes the purpose of a biological impacts assessment and then states that the accuracy of the analysis depends on the accuracy of the characterization of the environmental setting. It then asserts generally that the Draft EIR's environmental setting is inaccurate and that several potential impacts have been inadequately analyzed. These impacts include habitat loss, interference with wildlife movement, and wildlife-automobile collision mortality.

In terms of specific comments, the commenter argues that the permanent loss of "productive capacity" of the project site would be "very substantial and highly significant" and notes that it is not analyzed or mitigated for in the Draft EIR. The commenter also discusses the potential for habitat loss based on the commenter's review of non-related projects.

Response to LIUNA-21
These comments are noted. To the extent this comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required. The commenter does not describe why review of other non-related sites is relevant and instead makes a generalized statement regarding the impacts associated with urban development. This generalized comment does not warrant a specific response under CEQA; see also Responses to LIUNA-6, LIUNA-9, LIUNA-12, LIUNA-15, and LIUNA-20, regarding habitat loss concerns.

The commenter does not define what is meant by the protection of "productive capacity." To the extent it is meant to reference the future number of species that could potentially be birthed on the site, this is not a threshold or topic area under CEQA and is therefore not a necessary component that will be addressed in this response.

Moreover, as discussed in detail in the Draft EIR and related BRA, the habitats present on-site are not considered sensitive because, among other reasons, they have been significantly altered from their natural state to support an actively managed almond orchard.

Regarding purported habitat loss due to the project, the key State resource agency, CDFW, has commented on the Draft EIR regarding the proposed project. Except for minor species-specific revisions proposed to specific mitigation measures, CDFW did not set forth any concerns regarding the Draft EIR's description of the environmental setting and/or its impact analysis. Additionally, the commenter's formula for quantifying habitat loss is not recognized by industry professionals as a proper methodology for assessing habitat loss under CEQA and is based on speculation, which is not cognizable under CEQA (CEQA Guidelines §§ 15145; 15384). Instead, the Draft EIR reflects feasible and appropriate measures specific to migratory and nesting birds and roosting bats that are consistent with standard industry practice, which would become binding mitigation measures via enforceable conditions of approval (see MM BIO-1a, MM BIO-1b, MM BIO-1c, MM BIO-1e, and MM BIO-1f).

The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA. Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA. No further analysis or revisions are required.

Comment LIUNA-22
The commenter again states that the Draft EIR's less than significant determination regarding potential impacts on wildlife movement is not accurate because it is conclusory and not based on any evidence and since it relies on the conclusion that the project site does act as a wildlife movement corridor. In so doing, the commenter asserts that the Draft EIR fails to recognize that the project would interfere with wildlife movement, even if it is not a corridor, because it is a "stopover" and "staging" site" during migration, dispersal and home range patrol.

Response to LIUNA-22
See Response to LIUNA-10.

Comment LIUNA-23
The commenter reiterates a generalized comment regarding how vehicle collisions throughout North America have taken "devastating tolls" on wildlife and also makes a general comment regarding how the project-related traffic (including on roads far from the project footprint) would endanger wildlife. The commenter then includes several photographs of wildlife on roadways throughout California over a span of numerous years that apparently have collided with vehicles. It then details findings from a study conducted in another county, at great distance from the project site, and states that this information has predictive value as to how many collision fatalities can be assumed to occur based on VMT. The commenter then applies this assumption to "predict" the number of wildlife fatalities due to vehicle collisions that would result from the proposed project, characterizing these numbers as "very substantial and highly significant." Based on this assessment, the commenter argues that compensatory mitigation is needed for the increased wildlife mortality that would be

caused by the proposed project's contribution to increased road traffic in the region and mitigation that "improve[s] wildlife safety along roads" is suggested.

Response to LIUNA-23
See Response to LIUNA-11.

Comment LIUNA 24
The commenter reasserts that the cumulative impact analysis is inadequate for the following reasons:

(1) because of the inaccurate characterization of the environmental setting in terms of assumptions about lack of presence of numerous species;

(2) based on the Draft EIR's failure to accurately describe the project site as important for wildlife movement; and

(3) its reliance on cumulative projects' compliance with applicable laws, regulations and policies to ensure cumulative impacts are less than significant. Then, the commenter cites the project-specific mitigation measures as the basis for a less than significant conclusion, which the commenter characterizes as relying solely on pre-construction surveys that the commenter views as inadequate.

Response to LIUNA-24
These comments are noted for the record. See Response to LIUNA-6 regarding the Draft EIR's scope and adequacy of its cumulative analysis. First, the Draft EIR does not state that special-status species of wildlife do not occur at the project site or on other cumulative development sites. Rather, the Draft EIR states within Section 3.3, Biological Resources, Section 3.4 Cumulative Impacts portion that "No special-status species are expected to successfully establish at the project site long term," and describes the basis for this conclusion. In addition, the Draft EIR states that "there is a low likelihood of special-status wildlife or plants, wildlife nursery sites, or protected trees occurring within these urban cumulative project areas due to past ground disturbance and planned for development."

To address why the proposed project would not significantly impact wildlife movement, please refer to Response to LIUNA-11. To address the sufficiency of the listed pre-construction surveys and the lack of need to respond to lost production capacity, please refer to Response to LIUNA-11. No further response is required.

Comment LIUNA 25
The commenter asserts that "most of the mitigation plan" consists of pre-construction surveys. He then asserts that protocol-level detection surveys are needed for pre-construction surveys to be efficient in terms of avoiding and mitigating impacts to species. He also argues against the validity of MM BIO-1e and MM BIO-3 as effective mitigation measures based on a characterization of them relying solely on pre-construction surveys.

The commenter also refers to the 36,100 trees present on-site.

Response to LIUNA-25

These comments are noted for the record. As a preliminary matter, the commenter's statement about the number of trees on-site is grossly inaccurate. Furthermore, the commenter's focus on identifying "nest density" and reference to time spent on other non-relevant studies are not issue(s) cognizable under CEQA or otherwise necessary for an adequate analysis of impacts to biological resources.

The commenter's assertion that MM BIO-1e is subjective and unenforceable is not accurate; rather, this mitigation measure would be imposed on the proposed project as an enforceable condition of approval through adoption of the MMRP.

With respect to potential impacts to jurisdictional features, the Draft EIR and related BRA fully consider this environmental topic area, identify a potentially significant impact, and then set forth recommended mitigation. MM BIO-3, contrary to the commenter's assertion, does not merely reflect "an administrative step to obtain take authorization" but rather sets forth a specific requirement based on adherence to detailed criteria governed by applicable resource agencies under a robust regulatory framework. Moreover, as recognized in the Draft EIR and discussed further below, "legal authority to determine whether these features are jurisdictional and thus regulated lies with the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW." This measure properly reflects and respects the governing regulatory framework and properly contemplates implementation to occur once the City, as Lead Agency under CEQA and the local land use agency, considers and takes action on the proposed project, not beforehand as the commenter asserts.

This commenter asserts there are 36,100 trees present on-site. This presumably refers to the actively managed almond orchard present on-site and argues that mitigation and surveying of these trees would not be achievable in 7 days. However, this underestimates the manpower allocated to the subsequent survey efforts and assumes the number of hours needed to survey the site. The commenter's argument is based on assumptions and does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA. The Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA.

Also, please see Responses to LUINA-9, LIUNA-11, and LIUNA-21, above. No further response is required.

Comment LIUNA 26

The commenter reiterates his prior recommendations regarding changes and/or additions to project mitigation. Specifically, the commenter recommends the addition of requirements to (1) conduct protocol-level detection surveys, (2) provide compensatory mitigation for habitat loss, (3) provide compensatory mitigation for the increased wildlife mortality and road traffic, and (4) provide compensatory mitigation that includes funding contributions to wildlife habitation facilities to cover the cost of injured animals due to automobile collisions.

Response to LIUNA-26
These comments are noted for the record. For the reasons set forth herein, the commenter's suggested mitigation is not required under CEQA, and the Lead Agency has determined to rely upon its biological resource experts in terms of the methodology and conclusions set forth in the Draft EIR and related BRA. Please also refer to Responses to LIUNA-9, LIUNA-10, LIUNA-11, LIUNA-12, LIUNA-15, and LIUNA-21). The Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required.

Comment LIUNA-27
The commenter provides a CV for Kenneth Shawn Smallwood, an ecologist, who prepared a peer review of the BRA of the Draft EIR and sets forth comments to the Draft EIR.

Response to LIUNA-27
The comment is noted for the record. Because the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

Comment LIUNA-28
The commenter (SWAPE) offers a brief introduction to the claims, a brief description of the proposed project, and a general summary of the issues raised, wherein the commenter asserts that based on their review of the Draft EIR, it fails to adequately evaluate air quality, health risks, and GHG impacts. The commenter then states that a revised EIR should be prepared to adequately assess and mitigate the foregoing impacts.

Response to LIUNA-28
It does not raise any specific project-related environmental issues under CEQA and therefore no further response is required.

Comment LIUNA-29
The commenter first provides a summary of the project's air emission impacts as stated in the Draft EIR. The commenter then asserts purported legal principles under CEQA and claims the Draft EIR's conclusion that the impacts remain significant and unavoidable is incorrect. Thus, the commenter alleges that the Draft EIR has failed to discuss or implement all available feasible mitigation measures for reducing the proposed project's significant and unavoidable air quality impacts and that this also results in a failure by the City to make a good faith effort at full disclosure. To support its contention, the comment references a list of "additional feasible mitigation" that it recommends for adoption.

Response to LIUNA-29
The first part of the comment is a summary of the air emission analysis and does not include any specific project-related environmental issues under CEQA, and therefore no further response is necessary.

The second part of the comment refers to the suggested mitigation measures that are thoroughly discussed in Responses to AFTE-3 through AFTE-5, SJVAPCD-9 and LIUNA-4.

Based on the information presented above, the Lead Agency is of the opinion that project impacts related to air quality have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarification as noted above.

Comment LIUNA-30
The commenter sets forth certain of the Draft EIR's conclusions with respect to the construction and operational HRA. It then asserts that the Draft EIR's evaluation of potential health risk impacts, as well as the subsequent less than significant conclusion, is incorrect, and states that the Draft EIR does not provide the HRA's exposure assumptions for ASF and FAH. It then alleges that the HRA's reliance on an equation that fails to implement specific exposure assumptions with respect to ASF and FAH prevents the commenter's consultant from verifying whether the calculation of construction cancer risk is accurate. Until this information is provided, the commenter asserts that the risk may be underestimated.

Response to LIUNA-30
See Responses to LUINA-14 and GSEJA-7.

Comment LIUNA-31
The commenter provides excerpts of the project's operational GHG emissions from the Draft EIR, as well as statements regarding the project's consistency with the City's CAP and identification of feasible mitigation measures. The commenter asserts that MM GHG-2a provides three options, each of which would yield different results in terms of emission reductions. It purports to State legal principles under CEQA and then asserts that the project should demonstrate consistency with the most conservative approach. Similarly, the commenter claims that the proposed project should provide rooftop solar panels in order to be consistent with the City's CAP.

Response to LIUNA-31
As discussed in Responses to LIUNA-13 and LIUNA-14, the proposed project would be required to comply with California Building Energy Efficiency Standards Section 140.10 per modified MM GHG-2(a), which requires the installation of a solar photovoltaic system for all proposed land uses such as warehouses, self storage facility, drive-through restaurants, and convenience store, unless otherwise exempt per Section 140.10. The required solar PV size is calculated based on the project's climate zone, amount of conditioned space, and space usage. Therefore, the proposed project would be consistent's the CAP policy which encourages the installation of solar PV systems. The Draft EIR determined that the proposed project would result in a less than significant impact after implementation of MM AIR-2d, MM GHG-2a, and MM GHG-2b. The revisions to MM GHG-2a only further strengthen this conclusion, which remains accurate. Therefore, no further mitigation is required.

See also Responses to AFTE-3 through AFTE-5.

Comment LIUNA-32
The commenter reasserts claims made in LIUNA-4 related to potentially significant air quality impacts from ROG, NO_X and PM_{10}. The commenter reiterated that the Draft EIR did not implement all feasible mitigation measures, as well. The comment raises a number of other issues with these measures.

Response to LIUNA-32
See Responses to AFTE-3 through AFTE-5 and LIUNA-4.

To the extent the commenter identified other issues beyond those listed in LIUNA-4, the comments are addressed below.

- *"Minimize unnecessary vehicular and machinery activities."*

The scope and underlying obligations of the suggested measure is unclear given its general language; therefore, as an initial matter, it is noted that "minimizing unnecessary vehicular and machinery activities" is too vague to be defined or quantified for determining what, if any, reduction such a measure would have and also too vague for purposes of ensuring adequate enforcement. Therefore, the suggested measure would not be an appropriate mitigation measure under CEQA. It is worth noting that the proposed project's off- and on-road diesel vehicles would be subject to applicable laws and regulations as part of a comprehensive framework that is being implemented across the State to reduce emissions, such as, among others, applicable ARB regulations that prohibit unnecessary idling, which would reduce emissions from the proposed project's construction and operations-related vehicles. Moreover, MM AIR-2a reinforces this stated regulatory obligation by requiring signage to this effect.

- *"Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a ARB-approved fleet. Daily logging of the operating hours of the equipment should also be required."*

The commenter does not provide any information or evidence as to how assembling an inventory of proposed project's construction equipment and their daily usage and a daily logging of operating hours would translate into emissions reductions, and if so, how much of a reduction would occur. It is also unclear what "applicable percent reduction" or "a plan for approval" is being referenced by the comment. As discussed at length in the Draft EIR, the project would be required to adhere to all applicable laws and regulations during construction and operation, including adherence to all Air District rules and regulations, including, without limitation, any permitting requirements. Given these considerations, the suggested measure would not reduce the proposed project's construction or operational emissions, and it is not an appropriate mitigation measure under CEQA. Moreover, for the reasons set forth herein and the Draft EIR, the air quality analysis is adequate for purposes of CEQA. From a mitigation standpoint, for example, implementation of MM AIR-2a would require all off-road diesel-powered construction equipment greater than 50 horsepower to meet EPA or ARB Tier 4 Final off-road emissions standards, to the extent such equipment is reasonably commercially available. Therefore, all off-road equipment over 50 horsepower would utilize ARB-approved engines, subject to commercial availability.

- *"Ensure that all construction equipment is properly tuned and maintained."*

Similar to the other suggested measures, this language is general and vague in nature, which (1) makes a determination as to its potential ability to result in quantifiable emissions reductions speculative, and (2) raises enforcement issues that make implementation infeasible. For example, the measure does not contain any methodology or mechanism for enforcement. Based on the foregoing, it is not an appropriate mitigation measure under CEQA.

- *"Minimize idling time to 5 minutes or beyond regulatory requirements–saves fuel and reduces emissions."*

As noted above, the proposed project's off- and on-road diesel vehicles would already be subject to applicable ARB regulations that prohibit unnecessary idling time exceeding five minutes. Moreover, MM AIR-2a reinforces this stated regulatory obligation by requiring signage to this effect. Therefore, the commenter's suggested measure would already be imposed upon the project, and thus no change is warranted.

- *"Projects located within the South Coast Air Basin should consider applying for South Coast AQMD 'SOON' funds which provides funds to applicable fleets for the purchase of commercially available, low-emission heavy-duty engines to achieve near-term reduction of NOX emissions from in-use off-road diesel vehicles."*

The proposed project is not located within the South Coast Air Basin, and thus the suggested measure would not be applicable. No change is warranted.

As demonstrated above, the proposed project would implement all feasible suggested measures. For the reasons set forth herein and in the Draft EIR (including appendices attached thereto), the City disagrees with the commenter's assertions that the suggested mitigation measures (1) would reduce construction and operational emissions; and (2) are a "cost effective, feasible way to incorporate lower-emitting design features."

To the contrary, the Draft EIR contains a robust analysis that reflects a good faith effort at full disclosure. The Draft EIR consistently utilizes conservative assumptions, methodologies and conclusions in conducting its air quality, energy and GHG analyses. For example, the Draft EIR considered both concurrent and sequential phasing scenarios (even though the likelihood of concurrent phasing is relatively low given the size and nature of the project). It also identified a range of thoughtful, feasible mitigation to ensure impacts were reduced to the extent feasible but then disclosed that, in the absence of certainty that the identified mitigation can be feasibly mitigated such that project impacts would be reduced to a less than significant level, impacts would remain significant and unavoidable due to NO_X during construction and ROG, NO_X, PM_{10} during operation of the proposed project.

The measures suggested by the commenter are, for the most part, general in nature, thereby making it difficult if not entirely speculative to confirm whether quantificable emission reductions would occur. Such general and vague language also make implementation and enforcement infeasible. Finally, because the Draft EIR reflects a reasoned analysis that thoughtfully discloses the project's air quality, energy and GHG impacts and identifies mitigation measures to reduce significant impacts to the extent feasible, the Draft EIR is sufficient under the law, no changes are warranted, and recirculation is not triggered. Based on the information presented above, the Lead Agency is of the opinion that project impacts related to air quality have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarification as noted above.See also Responses to AFTE-3 through AFTE-5, SJVAPCD- through SJVAPCD-9 and Response to LIUNA-4, above.

Comment LIUNA-33
The commenter provides a disclaimer regarding the right to revise or amend this SWAPE report if additional information regarding the proposed project becomes available. The comment also states that the SWAPE report may contain informational gaps, inconsistencies, or be incomplete due to the unavailability or uncertainty of information provided by third parties.

Response to LIUNA-33
The comment is noted for the record. It does not raise any specific project-related environmental issues under CEQA and therefore no further response is required.

Comment LIUNA 34
The comment provides a CV for Matthew F. Hagemann and Paul Rosenfeld, a Principal Environmental Chemist, who prepared a review letter of the air quality analysis of the Draft EIR.

Response to LIUNA-34
The comment is noted. No specific project-related environmental issues under CEQA are raised, and therefore no further response is required.

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VIA E-MAIL

May 28, 2024

Brandon Smith, Project Manager
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RE: City of Visalia's Shirk and Riggin Industrial Project – Draft Environmental Impact Report (SCH# 2022080658)

Dear Brandon Smith,

On behalf of the Carpenters Union Local 1109 ("**Local 1109**"), our firm is submitting these comments for the City of Visalia's ("**City**") Draft Environmental Impact Report ("**DEIR**") for the Shirk and Riggin Industrial Project ("**Project**").

The Project's Notice of Availability ("**NOA**") for the DEIR contains the following Project Description:

> The project applicant proposes to convert existing agricultural lands and develop the approximately 284-acre project site into an industrial park, consisting of eight industrial buildings used for warehouse, distribution, and light manufacturing; six flex industrial buildings; two drive-through restaurants; a convenience store; a recreational vehicle (RV) and self-storage facility; gas station; and a car wash. The total building footprint is approximately 3,720,149 square feet. The project site would include sufficient amounts of trailer stalls and car parking stalls to serve the proposed uses in accordance with applicable City requirements. The proposed project would also involve necessary infrastructure and improvements sufficient to serve the proposed uses. These would include detention basins on the east, west, and central portions of the project site and other necessary stormwater facilities to be sized and installed in accordance with all applicable requirements and standards. Access would 1

> be provided via three access points along Shirk Street, three access points along Riggin Avenue, and five access points along Kelsey Street. Clancy Street south of the project site would be extended to replace the existing private road and would traverse south to north of the site. On-site orchards would need to be removed, and appropriate landscaping and lighting would be incorporated into the overall site design consistent with applicable City requirements and guidelines.
>
> The proposed project would need to be annexed into the city limits, and upon annexation, would be served by the City of Visalia for purposes of water and wastewater. In addition, the other entitlements associated with this project include a Tentative Parcel Map and a Conditional Use Permit for some of the uses proposed (convenience store, drive-through lanes), some of the proposed lot sizes in the light industrial zoning, and lots without public street frontage.

NOA of DEIR, p. 1.

The concurrently circulated DEIR contains the same project description. DEIR, pp. 1-2.

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CONT

Local 1109 represents thousands of union carpenters in Tulare County, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Individual members of Local 1109 live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Local 1109 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Local 1109 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Local 1109 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body. 1 CONT

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built by contractors who participate in a Joint Labor-Management Apprenticeship Program approved by the State of California and make a commitment to hiring a local workforce.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site. 2

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce

> can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008: 2 CONT

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits. 2 CONT

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

II. THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR 'protects not only the environment but also informed self-government[.]'" *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564 (internal citation omitted). 3

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subds. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1354; *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 400. The Environmental Impact Report (EIR) serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002, subd. (a)(2).

A public agency must prepare an EIR whenever substantial evidence supports a "fair argument" that a proposed project "may have a significant effect on the environment." Pub. Res. Code, §§ 21100, 21151; CEQA Guidelines, §§ 15002, subds. (f)(1)-(2), 15063; *No Oil, supra,* 13 Cal.App.3d at p. 75; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 111-112. If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, §§ 15092, subds. (b)(2)(A)-(B). 3 CONT

Essentially, should a lead agency be presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. CEQA Guidelines, §§ 15064(f)(1)-(2); see *No Oil, supra,* 13 Cal.App.3d at p. 75 (internal citations and quotations omitted). Substantial evidence includes "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." CEQA Guidelines, § 15384, subd. (a).

The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal. App. 4th 1344, 1354 ("*Berkeley Jets*"); *County of Inyo v. Yorty* (1973) 32 Cal. App. 3d 795, 810.

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Id.* For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Id.*

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St. v. City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." Pub. Res. Code, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75 (hereafter, "*No Oil*"); accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884 (hereafter, "*Jensen*"). Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. Pub. Res. Code, §§ 21100, subd. (a), 21151; CEQA Guidelines, §§ 15064, subds. (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the lead agency *must* adopt a negative declaration. Pub. Res. Code, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063, subd. (b)(2), 15064, subd. (f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." Pub. Res. Code, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, supra,*

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13 Cal.App.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309 (hereafter, "*Sundstrom*"). If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063, subd. (b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom, supra,* 202 Cal.App.3d at p. 310; *No Oil, supra,* 13 Cal.App.3d at p. 84; *County Sanitation, supra,* 127 Cal.App.4th at p. 1579. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen, supra*, 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064, subd. (f)(1). It "requires the preparation of an EIR where there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial[.]" *County Sanitation, supra,* 127 Cal.App.4th at p. 1580 (quoting CEQA Guidelines, § 15063, subd. (b)(1)). 3 CONT

Evidence supporting a fair argument of a significant environmental impact triggers preparation of an EIR regardless of whether the record contains contrary evidence. *League for Protection of Oakland's Architectural and Historical Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-905. "Where the question is the sufficiency of the evidence to support a fair argument, deference to the agency's determination is not appropriate[.]" *County Sanitation, supra,* 127 Cal.App.4th at p. 1579 (quoting *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1317-1318).

The agency or the court should not weigh expert testimony or decide on the credibility of such evidence—this is the EIR's responsibility. As stated in *Pocket Protectors v. City of Sacramento* (2004):

> Unlike the situation where an EIR has been prepared, neither the lead agency nor a court may "weigh" conflicting substantial evidence to determine whether an EIR must be prepared in the first instance. Guidelines section 15064, subdivision (f)(1) provides in pertinent part: if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. Thus, as *Claremont* itself recognized, [c]onsideration is not to be given contrary evidence supporting the preparation of a negative declaration.

124 Cal.App.4th 903, 935 (internal citations and quotations omitted).

In cases where it is not clear whether there is substantial evidence of significant environmental impacts, CEQA mandates erring on the side of a "preference for resolving doubts in favor of environmental review." *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 332 "The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. *Friends of Mammoth v. Bd. of Supervisors* (1972) 8 Cal.3d 247, 259.

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CONT

Further, it is the duty of the lead agency, not the public, to conduct the proper environmental studies. "The agency should not be allowed to hide behind its own failure to gather relevant data." *Sundstrom, supra,* 202 Cal.App.3d at p. 311. "Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." *Ibid*; see also *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1382 (lack of study enlarges the scope of the fair argument which may be made based on the limited facts in the record).

Thus, refusal to complete recommended studies lowers the already low threshold to establish a fair argument. The court may not exercise its independent judgment on the omitted material by determining whether the ultimate decision of the lead agency would have been affected had the law been followed. *Environmental Protection Information Center v. Cal. Dept. of Forestry* (2008) 44 Cal.4th 459, 486 (internal citations and quotations omitted). The remedy for this deficiency would be for the trial court to issue a writ of mandate. *Ibid.*

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Keep Jets*, *supra*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights, supra,* 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Ibid*. Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the First District Court of Appeal has previously stated, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. *Berkeley Keep Jets, supra*, 91 Cal.App.4th at p. 1355 (internal quotations omitted). 3 CONT

Both the review for failure to follow CEQA's procedures and the fair argument test are questions of law, thus, the de novo standard of review applies. *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435. Whether the agency's record contains substantial evidence that would support a fair argument that the project may have a significant effect on the environment is treated as a question of law. *Consolidated Irrigation Dist.*, *supra*, 204 Cal.App.4th at p. 207; Kostka and Zischke, Practice Under the Environmental Quality Act (2017, 2d ed.) at § 6.76.

III. THE DEIR IS INADEQUATE UNDER CEQA

A. The DEIR Fails to Support Its Findings with Substantial Evidence

When new information is brought to light showing that an impact previously discussed in the DEIR but found to be insignificant with or without mitigation in the DEIR's analysis has the potential for a significant environmental impact supported by substantial evidence, the DEIR must consider and resolve the conflict in the evidence. See *Visalia Retail, L.P. v. City of Visalia* (2018) 20 Cal. App. 5th 1, 13, 17; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1109. While a lead agency has discretion to formulate standards for determining significance and the need for mitigation measures—the choice of any standards or thresholds of significance must be "based to the extent possible on scientific and factual data and an exercise of reasoned judgment based on substantial evidence. CEQA Guidelines § 15064(b); *Cleveland Nat'l Forest Found. v. San Diego Ass'n of Gov'ts* 4

(2017) 3 Cal. App. 5th 497, 515; *Mission Bay Alliance v. Office of Community Inv. & Infrastructure* (2016) 6 Cal. App. 5th 160, 206. And when there is evidence that an impact could be significant, an EIR cannot adopt a contrary finding without providing an adequate explanation along with supporting evidence. *East Sacramento Partnership for a Livable City v. City of Sacramento* (2016) 5 Cal. App. 5th 281, 302.

In addition, a determination that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. In *Californians for Alternatives to Toxics v. Department of Food & Agric.* (2005) 136 Cal. App. 4th 1, the court set aside an EIR for a statewide crop disease control plan because it did not include an evaluation of the risks to the environment and human health from the proposed program but simply presumed that no adverse impacts would occur from use of pesticides in accordance with the registration and labeling program of the California Department of Pesticide Regulation. *See also Ebbetts Pass Forest Watch v Department of Forestry & Fire Protection* (2008) 43 Cal. App. 4th 936, 956 (fact that Department of Pesticide Regulation had assessed environmental effects of certain herbicides in general did not excuse failure to assess effects of their use for specific timber harvesting project).

4 CONT

1. *The DEIR Omits Critical Information in Its Analysis of the Project's Cumulative Impacts*

Table 3-1 of the DEIR lists the projects that the DEIR considered, in conjunction with the proposed Project, as part of its cumulative impacts analysis. However, the DEIR's Cumulative Projects list omits the Shirk and Riggin Annexation Project (1,553,080 sq. ft. – approved by the City via MND on 5/22/24; the "Shirk-Riggin Annexation"), for which the City has just adopted a MND approving the annexation of a 75-acre tract of prime agricultural land directly across Riggin Avenue from the Project site. Moreover, the Shirk-Riggin Annexation is anticipated to be developed into over 1.5 million square feet of light industrial/warehouse space. However, despite the intended uses of this adjacent project, the DEIR completely omits the Shirk-Riggin Annexation from its analysis of the Project's cumulative impacts.

This significant omission taints and effectively undermines the validity of much of the cumulative impacts analysis set forth in the DEIR. Indeed, the failure to consider a proposed significant, large-scale, industrial development directly across the street from the Project calls into question the DEIR's cumulative impacts analysis in impact categories such as agricultural resources, air quality, energy use, greenhouse gases, transportation, noise, hydrology and water quality, public services, utilities and service systems, and aesthetics. The DEIR must now be revised with respect to each of the foregoing impact categories (and potentially others) to incorporate the Shirk-Riggin Annexation in its cumulative impacts analysis. Absent such revision, the DEIR in its current form violates CEQA and cannot permissibly be certified by the City. 4 CONT

2. The DEIR Fails to Adequately Analyze the Project's Consistency with the City's General Plan

The EIR does not discuss or analyze the Project's cumulative impacts with respect to potential conflict with the Land Use Buildout Scenario under the City's General Plan. Table 1-4: Non-Residential Floor Area within the General Plan projected new development of 9,690,000 square feet of industrial uses between 2010 and 2030. Table 1-5: Employment by Sector projects the associated creation of 9,670 jobs in the industrial sector. The EIR does not provide any information or analysis on the buildout conditions of the General Plan. Further, the EIR has not provided evidence that the growth generated by the proposed Project and others in the surrounding area was anticipated by the General Plan, RTP/SCS, or AQMP.

The whole of the action proposed by the Project proposes the development of 3,720,149 square feet of industrial uses, which is 38.4% of the City's industrial buildout accounted for by a single project. The DEIR must include this analysis, and also provide a cumulative analysis discussion of projects approved since General Plan adoption and projects "in the pipeline" to determine if the project will exceed the General Plan buildout scenarios. 5

For example, other recent industrial projects such as Shirk and Riggin Annexation Project (1,553,080 sq. ft. – approved by the City via MND on 5/22/24; the "Shirk-Riggin Annexation") and its other adjacent related projects all being pursued by the same developer (YS Industries) propose 2,507,328 square feet of industrial uses directly across Riggin Avenue from the proposed Project. Combined with those other nearby industrial projects, the proposed Project will cumulatively generate 6,327,328 square feet of light industrial space. This represents 64% of the City's industrial buildout through 2030 accounted for by only five recent projects. These total industrial buildout increases when other industrial development approved, submitted, or "in the pipeline" since General Plan adoption are added to the total. Despite that, the EIR fails to include a cumulative analysis on his topic.

Further, Table 1-5: Employment by Sector within the General Plan indicates that the Industrial land use designation will allow for the creation of 9,670 new jobs from 2010-2030. Meanwhile, the whole of the action proposed by the Project will create 5,094 new jobs (utilizing the General Plan's employment generation ratio), which is 52.7% of the City's industrial job buildout accounted for by a single project. The EIR fails to include this analysis and any cumulative analysis discussion of projects approved since General Plan adoption and projects "in the pipeline" to determine if the project will exceed the General Plan buildout scenarios.

Indeed, other recent industrial projects such as the Shirk-Riggin Annexation and its related adjacent projects being pursued by YS Industries discussed above (2,507,328 total sf; 3,344 total jobs utilizing General Plan employment generation ratio) combined with the proposed project will cumulatively generate 8,438 industrial jobs. This represents 87% of the City's industrial job buildout through 2030 accounted for by only five recent projects. These totals increase when other industrial development approved, submitted, or "in the pipeline" since General Plan adoption are added to the total. Yet, the DEIR contains no analysis of these potential cumulative impacts with respect to the Project's potential conflict with the City's existing land use plans. 5 CONT

Accordingly, the DEIR has failed to adequately analyze the Project's impacts (both individual and cumulative) with respect to its consistency with the City's General Plan, and it must now be revised and recirculated to contain a detailed analysis of these issues. Absent provision of proper analysis, the public and the City's decisionmakers will not be properly informed regarding the Projects potential impacts that might otherwise run afoul of the City's General Plan.

3. The DEIR Omits Critical Supporting Information Regarding the Project's Agricultural Resources Impacts and Improperly Finds that the Project's Impact AG-5 Would Be Less Than Significant

The DEIR reaches the conclusion on Impact AG-5 that the Project would have a less than significant impact as to potential "changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use." (DEIR at pp. 3.2-14-15.) However, the DEIR premises that determination, in part, on the following unsupported conclusion in its analysis: "It would be speculative 6 to determine that the project would promote growth and result in the conversion of adjacent lands to non-agricultural uses." (DEIR at p. 3.2-14.)

As noted in Section 2, *supra*, the Project is anticipated to generate thousands of new jobs in the local economy. Indeed, a specific aim of the City's operative General Plan is to foster such growth via projects like this one. In that regard, it is entirely reasonable to conclude that the Project will promote growth and lead to conversion of additional agricultural lands to non-agricultural uses. An analysis in the DEIR of the Project's anticipated impacts on regional population and economic growth, and the secondary impacts posed by the potential development of additional agricultural lands for the purpose of uses such as additional housing and services, is warranted here. The current absence of that analysis in the DEIR is noteworthy and improper. 6 CONT

The DEIR fails to consider the economic and population growth that the Project will foster within the City, and the potential impacts of that growth on surrounding agricultural lands. The DEIR therefore must be revised and recirculated to provide adequate analysis of this issue.

4. The DEIR's Analysis of Agricultural Resources Impacts Fails to Consider and Deploy All Feasible Mitigation Measures

A fundamental purpose of an EIR is to identify ways in which a proposed project's significant environmental impacts can be mitigated or avoided. Pub. Res. Code §§ 21002.1(a), 21061. To implement this statutory purpose, an EIR must describe any feasible mitigation measures that can minimize the project's significant environmental effects. PRC §§ 21002.1(a), 21100(b)(3); CEQA Guidelines §§ 15121(a), 15126.4(a).

If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" PRC §§ 21002; 21002.1, 21081; CEQA Guidelines §§ 15091, 15092(b)(2)(A); and find that 'specific overriding economic, legal, social, technology or other benefits of the project outweigh the significant effects on the environment." PRC §§ 21002; 21002.1, 21081; CEQA Guidelines §§ 15091, 15092(b)(2)(B). "A gloomy forecast of environmental degradation is of little or no value without pragmatic, concrete means to minimize the impacts and restore ecological equilibrium." *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 1039. 7

According to CEQA Guidelines, "[w]hen an EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment." CEQA Guidelines Section 15096(g)(2). The DEIR concludes that the Project will have significant Agricultural Resources impacts (both at the project level and cumulative), in the form of converting Prime Farmland to non-agricultural use, but in response, proposes no mitigation measures to ameliorate those impacts. The DEIR then goes on to conclude the Project's Agricultural Resources impacts associated are "significant and unavoidable" and no mitigation measures are feasible. DEIR at pp. ES-8, 3.2-12. In support of its determination that no mitigation measures would be feasible, the DEIR states the following:

> Because, however, Policy LU-P-34 does not apply to Tier 1 lands and further because there is no adopted Agricultural Preservation Ordinance, there is no feasible method to mitigate the loss of this Important Farmland.

DEIR at p. 3.2-12. 7 CONT

In shrugging off the ability to mitigate the Agricultural Resources impacts of the project, the DEIR appears to rely upon the fact that the Project site's land has been considered for industrial zoning and development by the City's General Plan. However, an impact can only be labeled as significant-and-unavoidable after all available, feasible mitigation is considered and, here, the DEIR lacks substantial evidence to support a finding that no other feasible mitigation existed to mitigate Project's significant impacts on this issue. Indeed, the DEIR fails to even consider, let alone analyze, mitigation measures such as (1) the applicant's purchase and/or grant of agricultural easements on other productive farmland at a 1:1 mitigation ratio, (2) payment of a mitigation fee, (3) protection of part of the Project site for continuing agricultural uses, (4) establishing adequate buffering for the Project to ensure that neighboring agricultural areas are not interfered with, and/or (5) recordation of a Right to Farm certificate.

The DEIR contains no discussion of any of the foregoing mitigation concepts. Absent doing so, it cannot reach credible determinations that no mitigation measures for the agricultural resources impacts are feasible or that the Project's agricultural resources impacts are significant and unavoidable. The DEIR must be revised and recirculated to include this requisite analysis and discussion so that the public and the agency decisionmakers are adequately and accurately apprised of the Project's potential significant impacts. 7 CONT

5. The DEIR's Air Quality Mitigation Fails to Consider and Deploy All Feasible Mitigation Measures

Similar to the Agricultural Resources impacts discussed above, the DEIR concludes that the Project will have significant Air Quality impacts, since the proposed Project "would exceed applicable thresholds despite compliance with all applicable rules, regulations, and mitigation measures during construction and operation," and "[l]ocalized operational emissions … also present a potentially significant impact after incorporation of identified mitigation." DEIR, p. 3.3-57. The Project proposes to follow certain regulatory requirements and proposes various mitigation measures to further reduce construction and operational air quality impacts. DEIR at pp. 3.3-57-60. Notwithstanding, the DEIR concludes the Project's air quality impacts associated are "significant and unavoidable" DEIR at p. 3.3-60.

However, an impact can only be labeled as significant-and-unavoidable after all available, feasible mitigation is considered and the EIR lacks substantial evidence to support a finding that no other feasible mitigation existed to mitigate Project's significant impacts. Here, mitigation measure MM AIR-2c, includes optional language ("subject to the same being commercially practicable") in the context of "all on-site off-road and on-road service equipment will utilize zero-emission technology" in the construction of the project. DEIR at p. ES-11. 8

Given the current anticipated air quality impacts of the Project are considered substantial and unavoidable, such air quality-preserving mitigation measures should not be framed as optional or deferred for a later decision. Rather, the mitigation measure should confirm that such service vehicles at the Project will utilize zero-emission technology without any qualification. At a minimum, the DEIR should be revised and recirculated to incorporate these items as mandatory components of mitigation measure MM AIR-2c.

6. The DEIR's Noise Mitigation Fails to Consider and Deploy All Feasible Mitigation Measures

Despite finding that the Project would have a significant noise impacts with regards to, for example, the "generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local 9 general plan or noise ordinance, or applicable standards of other agencies . . .", the DEIR relies upon deficient mitigation measures before concluding that the Project's noise impacts are significant and unavoidable. Indeed, MM NOI-1 is impermissibly flawed, in that it improperly defers mitigation for a later study, despite the Project's current proposed and anticipated uses.

Mitigation Measure NOI-1 states as follows, in pertinent part:

> (a) Prior to the issuance of building permit for a drive-through car wash an in-depth acoustical study prepared by a qualified acoustic professional shall be submitted for review and approval to the City Community Development Department that demonstrates that the design and operations of a proposed drive-through car wash would not result in exceedances of the Visalia Municipal Code's applicable daytime and nighttime noise limits for residential land uses. The study shall evaluate factors such as:
>
> - The location and orientation of noise-generating equipment, such as dryer blowers and vacuums.
> - The location and orientation of the drive-through car wash tunnel.
> - The hours of operation.
> - The location of the drive-through car wash on the project site.

DEIR, pp. ES-34.

On its surface, NOI-1(a) defers the acoustical study for the Project's intended drive-through car wash until immediately prior to issuance of a building permit. However, this study should be performed in conjunction with the current DEIR and all other aspects of the Project's environmental review, such that the City's decisionmakers will have access to all necessary information regarding the Project's impacts. Deferring formulation of the actual mitigation measure to some undefined time *after* the Project's approval is improper and cannot be used as a mitigation measure.

CEQA forbids deferred mitigation. Guidelines § 15126.4(a)(1)(B). CEQA allows deferral of details of MMs only "when it is impractical or infeasible to include those details during the project's environmental review." (*Id.*) CEQA further requires: "that the agency (1) commits itself to the mitigation, (2) adopts specific performance

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standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard…" Guidelines § 15126.4(a)(1)(B).

Under the current DEIR, the City has failed all of these preconditions and requirements, as the DEIR failed to show why the confirmation of the construction noise mitigation measures contemplated by NOI-1 cannot be achieved at this time, what impacts the measures will have individually or cumulatively, if those would indeed be feasible, and the specific performance criteria the Applicant will have to meet with regard to the measures. 9 CONT

Accordingly, the proposed mitigation measure is improperly deferred as it defers the formulation of mitigation measures to a later time, shifts the burden to the Applicant, and deprives the City of the opportunity to consider the actual levels of significance of the Project's operational noise impacts, whether with or without mitigation incorporated.

IV. CONCLUSION

Based on the foregoing concerns, the City should require revision and recirculation of the DEIR for the Project pursuant to CEQA. Absent doing so, the DEIR in its current form directly violates CEQA in multiple respects. If the City should have any questions or concerns, please do not hesitate to contact this office. 10

Sincerely,

Jeremy Herwitt
Attorneys for Carpenters Local 1109

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (**Exhibit A**);

Air Quality and GHG Expert Paul Rosenfeld CV (**Exhibit B**);

Air Quality and GHG Expert Matt Hagemann CV (**Exhibit C**)

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: **Local Hire Requirements and Considerations for Greenhouse Gas Modeling**

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2] 11

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

"$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$

Where:

n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

"$Emissions_{pollutant} = VMT * EF_{running,pollutant}$

Where:

$Emissions_{pollutant}$ = emissions from vehicle running for each pollutant

VMT = vehicle miles traveled

$EF_{running,pollutant}$ = emission factor for running emissions."[6]

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Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

11
CONT

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C). 11 CONT

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we
retain the right to revise or amend this report when additional information becomes available. Our professional
services have been performed using that degree of care and skill ordinarily exercised, under similar
circumstances, by reputable environmental consultants practicing in this or similar localities at the time of 12
service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and
protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which
were limited to information that was reasonably accessible at the time of the work, and may contain
informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of
information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A

Location Type	**Location Name**	**Rural H-W (miles)**	**Urban H-W (miles)**	
Air Basin	Great Basin	16.8	10.8	
Air Basin	Lake County	16.8	10.8	
Air Basin	Lake Tahoe	16.8	10.8	
Air Basin	Mojave Desert	16.8	10.8	
Air Basin	Mountain	16.8	10.8	
Air Basin	North Central	17.1	12.3	
Air Basin	North Coast	16.8	10.8	
Air Basin	Northeast	16.8	10.8	
Air Basin	Sacramento	16.8	10.8	
Air Basin	Salton Sea	14.6	11	
Air Basin	San Diego	16.8	10.8	
Air Basin	San Francisco	10.8	10.8	
Air Basin	San Joaquin	16.8	10.8	
Air Basin	South Central	16.8	10.8	
Air Basin	South Coast	19.8	14.7	
Air District	Amador County	16.8	10.8	
Air District	Antelope Valley	16.8	10.8	
Air District	Bay Area AQMD	10.8	10.8	13
Air District	Butte County	12.54	12.54	
Air District	Calaveras	16.8	10.8	
Air District	Colusa County	16.8	10.8	
Air District	El Dorado	16.8	10.8	
Air District	Feather River	16.8	10.8	
Air District	Glenn County	16.8	10.8	
Air District	Great Basin	16.8	10.8	
Air District	Imperial County	10.2	7.3	
Air District	Kern County	16.8	10.8	
Air District	Lake County	16.8	10.8	
Air District	Lassen County	16.8	10.8	
Air District	Mariposa	16.8	10.8	
Air District	Mendocino	16.8	10.8	
Air District	Modoc County	16.8	10.8	
Air District	Mojave Desert	16.8	10.8	
Air District	Monterey Bay	16.8	10.8	
Air District	North Coast	16.8	10.8	
Air District	Northern Sierra	16.8	10.8	
Air District	Northern	16.8	10.8	
Air District	Placer County	16.8	10.8	
Air District	Sacramento	15	10	

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

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CONT

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

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CONT

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

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CONT

Attachment B

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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CONT

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

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CONT

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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CONT

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

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CONT

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.682 3	1,721.682 3	0.1294	0.0000	1,724.918 3
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.529 1	1,627.529 1	0.1185	0.0000	1,630.492 1
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.682 3**	**1,721.682 3**	**0.1294**	**0.0000**	**1,724.918 3**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.4103	1.4103
2	12-1-2021	2-28-2022	1.3613	1.3613
3	3-1-2022	5-31-2022	1.1985	1.1985
4	6-1-2022	8-31-2022	1.1921	1.1921
5	9-1-2022	11-30-2022	1.1918	1.1918
6	12-1-2022	2-28-2023	1.0774	1.0774
7	3-1-2023	5-31-2023	1.0320	1.0320
8	6-1-2023	8-31-2023	1.0260	1.0260

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CONT

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

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CONT

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

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CONT

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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CONT

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

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3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

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3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

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3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

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3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

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3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

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CONT

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

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3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

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3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.646 5	2,512.646 5	0.1037	0.0215	2,521.635 6
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.646 5	2,512.646 5	0.1037	0.0215	2,521.635 6
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.426 7	1,383.426 7	0.0265	0.0254	1,391.647 8
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.426 7	1,383.426 7	0.0265	0.0254	1,391.647 8

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CONT

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

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CONT

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

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CONT

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

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CONT

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.587 9	0.0519	0.0107	1,262.086 9
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.646 5**	**0.1037**	**0.0215**	**2,521.635 6**

6.0 Area Detail

6.1 Mitigation Measures Area

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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CONT

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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CONT

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

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CONT

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

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CONT

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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CONT

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

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CONT

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

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CONT

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

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CONT

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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CONT

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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CONT

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

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CONT

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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CONT

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

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CONT

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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CONT

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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CONT

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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CONT

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.241 3	1,292.241 3	0.0877		1,294.433 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.056 8**	**1,463.056 8**	**0.0927**		**1,465.375 0**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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CONT

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

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3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/day								lb/day			
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

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CONT

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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CONT

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

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3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.685 7	8,800.685 7	0.2429		8,806.758 2
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.23 39**	**12,697.23 39**	**0.4665**		**12,708.89 66**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.333 6**	**2,554.333 6**	**0.6120**		**2,569.632 2**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

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CONT

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.440 8	8,478.440 8	0.2190		8,483.916 0
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.31 70**	**12,252.31 70**	**0.4172**		**12,262.74 60**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

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3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

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3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.547 2**	**2,207.547 2**	**0.7140**		**2,225.396 3**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.547 2**	**2,207.547 2**	**0.7140**		**2,225.396 3**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.085 2	1,641.085 2	0.0401		1,642.088 6
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.085 2**	**1,641.085 2**	**0.0401**		**1,642.088 6**

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CONT

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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CONT

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

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CONT

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

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CONT

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

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CONT

6.0 Area Detail

6.1 Mitigation Measures Area

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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CONT

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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CONT

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

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CONT

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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CONT

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

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CONT

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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CONT

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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CONT

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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CONT

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.693 2**	**1,430.693 2**	**0.0955**		**1,433.081 2**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

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CONT

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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CONT

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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CONT

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

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3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

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CONT

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.075 0	3,789.075 0	0.2381		3,795.028 3
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.901 3	8,286.901 3	0.2282		8,292.605 8
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.97 63**	**12,075.97 63**	**0.4663**		**12,087.63 41**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.333 6**	**2,554.333 6**	**0.6120**		**2,569.632 2**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.075 0	3,789.075 0	0.2381		3,795.028 3
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.901 3	8,286.901 3	0.2282		8,292.605 8
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.97 63**	**12,075.97 63**	**0.4663**		**12,087.63 41**

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CONT

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.400 7	3,671.400 7	0.2096		3,676.641 7
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.731 8	7,983.731 8	0.2055		7,988.868 3
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.13 25**	**11,655.13 25**	**0.4151**		**11,665.50 99**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

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CONT

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

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CONT

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.547 2**	**2,207.547 2**	**0.7140**		**2,225.396 3**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

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3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.286 0	1,545.286 0	0.0376		1,546.226 2
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.286 0**	**1,545.286 0**	**0.0376**		**1,546.226 2**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.286 0	1,545.286 0	0.0376		1,546.226 2
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.286 0**	**1,545.286 0**	**0.0376**		**1,546.226 2**

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

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CONT

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

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CONT

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.916 4	4,209.916 4	0.0807	0.0772	4,234.933 9
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.634 2	2,677.634 2	0.0513	0.0491	2,693.546 0
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.983 2**	**8,355.983 2**	**0.1602**	**0.1532**	**8,405.638 7**

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CONT

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.916 4	4,209.916 4	0.0807	0.0772	4,234.933 9
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.634 2	2,677.634 2	0.0513	0.0491	2,693.546 0
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.983 2**	**8,355.983 2**	**0.1602**	**0.1532**	**8,405.638 7**

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CONT

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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CONT

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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CONT

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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CONT

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

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CONT

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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CONT

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

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CONT

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-1-2021	11-30-2021	1.4091	1.4091
2	12-1-2021	2-28-2022	1.3329	1.3329
3	3-1-2022	5-31-2022	1.1499	1.1499
4	6-1-2022	8-31-2022	1.1457	1.1457
5	9-1-2022	11-30-2022	1.1415	1.1415
6	12-1-2022	2-28-2023	1.0278	1.0278
7	3-1-2023	5-31-2023	0.9868	0.9868
8	6-1-2023	8-31-2023	0.9831	0.9831

9	9-1-2023	11-30-2023	0.9798	0.9798
10	12-1-2023	2-29-2024	2.8757	2.8757
11	3-1-2024	5-31-2024	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

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CONT

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft) 13 CONT

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

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CONT

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

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3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

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3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

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3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

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3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

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3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

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3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

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CONT

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.498 6	7,620.498 6	0.3407	0.0000	7,629.016 2
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.498 6	7,620.498 6	0.3407	0.0000	7,629.016 2

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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CONT

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

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CONT

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.646 5	2,512.646 5	0.1037	0.0215	2,521.635 6
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.646 5	2,512.646 5	0.1037	0.0215	2,521.635 6
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.426 7	1,383.426 7	0.0265	0.0254	1,391.647 8
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.426 7	1,383.426 7	0.0265	0.0254	1,391.647 8

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CONT

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

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CONT

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

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CONT

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

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CONT

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.587 9	0.0519	0.0107	1,262.086 9
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.646 5**	**0.1037**	**0.0215**	**2,521.635 6**

6.0 Area Detail

6.1 Mitigation Measures Area

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

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6.2 Area by SubCategory

<u>Unmitigated</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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CONT

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

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7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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CONT

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

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CONT

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

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CONT

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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CONT

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CONT

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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CONT

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

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CONT

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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CONT

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

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CONT

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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CONT

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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CONT

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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CONT

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

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3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

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CONT

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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CONT

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.558 5	6,042.558 5	0.1697		6,046.800 0
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.106 7**	**9,939.106 7**	**0.3933**		**9,948.938 4**

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CONT

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.402 8	5,821.402 8	0.1529		5,825.225 4
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.279 0**	**9,595.279 0**	**0.3511**		**9,604.055 4**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.402 8	5,821.402 8	0.1529		5,825.225 4
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.279 0**	**9,595.279 0**	**0.3511**		**9,604.055 4**

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CONT

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.584 1**	**2,207.584 1**	**0.7140**		**2,225.433 6**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.584 1**	**2,207.584 1**	**0.7140**		**2,225.433 6**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

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3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.547 2**	**2,207.547 2**	**0.7140**		**2,225.396 3**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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CONT

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.758 3	1,126.758 3	0.0280		1,127.458 3
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.758 3**	**1,126.758 3**	**0.0280**		**1,127.458 3**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.758 3	1,126.758 3	0.0280		1,127.458 3
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.758 3**	**1,126.758 3**	**0.0280**		**1,127.458 3**

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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CONT

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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CONT

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

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CONT

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.916 4	4,209.916 4	0.0807	0.0772	4,234.933 9
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.634 2	2,677.634 2	0.0513	0.0491	2,693.546 0
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.983 2**	**8,355.983 2**	**0.1602**	**0.1532**	**8,405.638 7**

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CONT

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

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CONT

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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CONT

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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CONT

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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CONT

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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CONT

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

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CONT

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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CONT

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

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CONT

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.337 7	6,154.337 7	1.9472	0.0000	6,203.018 6
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.34 40	12,035.34 40	1.9482	0.0000	12,060.60 13
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.40 80	11,710.40 80	0.9617	0.0000	11,734.44 97
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.051 7	2,307.051 7	0.7164	0.0000	2,324.962 7
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.34 40**	**12,035.34 40**	**1.9482**	**0.0000**	**12,060.60 13**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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CONT

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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CONT

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

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CONT

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.326 2**	**1,380.326 2**	**0.0941**		**1,382.679 1**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.326 2**	**1,380.326 2**	**0.0941**		**1,382.679 1**

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3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.656 9	3,685.656 9	1.1920		3,715.457 3
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.656 9**	**3,685.656 9**	**1.1920**		**3,715.457 3**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

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CONT

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

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3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

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CONT

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.075 0	3,789.075 0	0.2381		3,795.028 3
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.935 4	5,691.935 4	0.1602		5,695.940 8
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.010 4**	**9,481.010 4**	**0.3984**		**9,490.969 1**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.333 6**	**2,554.333 6**	**0.6120**		**2,569.632 2**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

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CONT

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.400 7	3,671.400 7	0.2096		3,676.641 7
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.797 4	5,483.797 4	0.1442		5,487.402 0
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.198 1**	**9,155.198 1**	**0.3538**		**9,164.043 7**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

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CONT

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.584 1**	**2,207.584 1**	**0.7140**		**2,225.433 6**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

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3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.547 2**	**2,207.547 2**	**0.7140**		**2,225.396 3**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

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3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.381 8	1,061.381 8	0.0264		1,062.041 0
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.381 8**	**1,061.381 8**	**0.0264**		**1,062.041 0**

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CONT

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

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CONT

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

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CONT

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

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CONT

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.916 4	4,209.916 4	0.0807	0.0772	4,234.933 9
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.634 2	2,677.634 2	0.0513	0.0491	2,693.546 0
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.983 2**	**8,355.983 2**	**0.1602**	**0.1532**	**8,405.638 7**

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CONT

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

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6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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CONT

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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CONT

Attachment C

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

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CONT

<u>EXHIBIT B</u>

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
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Office: (310) 452-5555
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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial 14
and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632. 14 CONT

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

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Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA. 14 CONT

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

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CONT

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

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CONT

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation. 14 CONT

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018 14 CONT

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

14 CONT

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

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EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist 15
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns. 15 CONT
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

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- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater. 15 CONT
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup. 15 CONT
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

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CONT

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9. 15 CONT

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City. 15 CONT

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

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Carpenters Union Local 1109 (LOCAL1109)

Comment LOCAL1109-1

The comment includes background information on the commenter as well as the consultants hired to assist in the preparation of the comment letter. It also states the commenter's general position that the Draft EIR fails to comply with CEQA and summarizes the basis for this assertion and requests the Draft EIR be revised and recirculated to respond to its comments. The comment also notes that it is expressly reserving its right to supplement these comments at or prior to hearings on the project and at any later hearing or proceeding related to the project. In addition, the comment requests that Local 1109 is added to the public distribution list for the proposed project.

Response to LOCAL1109-1

The comment is noted for the record. It does not raise any specific project-related environmental issues under CEQA and therefore no further response is required.

Pursuant to its request, the commenter has been added to the public distribution list for the proposed project. With respect to the commenter's purported reservation of rights, a lead agency is required to consider comments on the Draft EIR and to prepare written responses if a comment is received within the public comment period (PRC § 21091(d); CEQA Guidelines § 15088). When a comment letter is received after the close of the public comment period, however, a lead agency does not have an obligation to respond (PRC § 21091(d)(1); PRC § 21092.5(c)). Moreover, nothing in the comment would change the procedures that are required under applicable laws and regulations with respect to (1) the preparation and certification of the project's administrative record, and/or (2) exhaustion mandates; accordingly, the City hereby expressly reserves any and all rights thereunder.

Comment LOCAL1109-2

The commenter states that the City should require the use of a local workforce in order to benefit the community's economic development and environment. The commenter also states that the City should require the proposed project to be built by contractors who participate in a Joint Labor-Management Apprenticeship Program approved by the State based on generalized assertions that local hiring can reduce the length of vendor trips, reduce GHG emissions, and provide localized economic benefits. The comment then suggests that local hiring can improve an area's job-housing balance and reduce air pollutants and VMT. It then cited a law recently adopted by the State legislature that purports to lend further credence to the comment's position. The comment concludes with the general assertion that the City should consider local workforce policies and requirements based on the foregoing reasons.

Response to LOCAL1109-2

The comment is noted for the record. Hiring decisions and the composition of a project's workforce is an economic and social issue, not an environmental issue that is appropriately analyzed or mitigated under CEQA. The comment does not provide substantial evidence regarding any significant environmental impact. Therefore, no further response is necessary.

However, project objectives include, among others: maximizing development of the existing underutilized project site and generating increased revenue and economic development for the City in order to support the City's ongoing City operations; as well as creating employment-generating businesses in the City to reduce the need for members of the local workforce to commute outside the area for employment and to improve the jobs-to-housing balance. Therefore, the project objectives are aligned generally with the comment's goals in this regard.

Furthermore, as disclosed in the Draft EIR, the proposed project would not have a significant impact related to VMT with implementation of identified mitigation; given the nature of the project, it is reasonable to conclude that the majority of construction workers and employees would likely come from the City and nearby unincorporated areas of the County. Moreover, the proposed project would be required to implement MM AIR-2a through MM AIR-2h, MM TRANS-1 through MM TRANS-9, MM TRANS-10a, MM TRANS-2b, MM TRANS-11, MM GHG-2a, and MM GHG-2b to reduce impacts related to air quality, GHG emissions, and transportation.

Finally, public agencies may use their discretionary powers granted by laws other than CEQA to mitigate environmental impacts. CEQA does not, however, expand the powers granted by other laws or otherwise confer an independent grant of authority to impose mitigation measures on a project. When imposing mitigation for a project's significant environmental effects, a public agency may only exercise those powers provided by legal authority independent of CEQA (PRC § 21004). The CEQA Guidelines specify that CEQA does not grant new or independent powers to public agencies. CEQA Guidelines § 15040. Accordingly, an agency's exercise of discretionary powers must be within the scope of the power granted by laws and be consistent with express or implied limitations (CEQA Guidelines § 15040(d)(e)). Mitigation measures that are beyond the powers conferred by law on lead agencies are legally infeasible. Accordingly, here, the City has no legal authority to control the hiring practices of future tenants and developers of the project or otherwise impose this type of ad hoc condition, and therefore, imposing the requested local hire requirements would not be legally permissible or feasible.

No further response is required.

Please also see Responses to CDOC-2, GSEJA-24, GSEJA-25, and GSEJA 26.

Comment LOCAL1109-3
The comment purports to provide legal background and various legal principles regarding CEQA, the purpose of EIRs generally, impact significance determinations, and the standard of review, among others.

Response to LOCAL1109-3
The comment is noted for the record. It does not raise any specific project-related environmental issues under CEQA, and therefore no further response is required.

Comment LOCAL1109-4
The comment purports to provide legal background and various legal principles regarding impact significance determinations and mitigation measures. The comment further states that Table 3-1 of the Draft EIR excludes the Shirk and Riggin Annexation Project, which is located across Riggin Avenue from the project site. The commenter suggests that the EIR must be revised to include this project within the cumulative analysis.

Response to LOCAL1109-4
To the extent the comment involves general statements of law and does not raise any specific project-related issues under CEQA, no further response is necessary.

See Response to GSEJA-6 and LIUNA-12.

The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA. Based on the information presented above, the Lead Agency is of the opinion that potential project and cumulative impacts have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required.

Comment LOCAL1109-5
The commenter states that the Draft EIR does not discuss or analyze the proposed project's compliance with the General Plan's Land Use Buildout Scenario since the General Plan projected approximately 9,690,000 square feet of industrial building area between 2010 and 2030, as well as approximately 9,670 industrial jobs. The commenter purports that the "whole of the action" inclusive of the two other projects would account for approximately 54 percent of the City's industrial buildout. The commenter suggests that the EIR has not provided adequate evidence that the growth generated by the proposed project was anticipated by the General Plan, RTP/SCS, or AQMP. Additionally, the commenter discusses other industrial development projects in the City, which combined with projects proposed by Seefried Industrial Properties, Inc., represent approximately 80.5 percent of the City's industrial buildout through 2030. As such, the comment states that a revised EIR must be prepared to include a cumulative analysis on this topic.

Response to LOCAL1109-5
The comment is noted for the record. As a preliminary matter, it is not entirely clear if the comment is criticizing the cumulative impact analysis in general or the land use impact analysis specifically. Furthermore, besides making general conclusory statements, the comment does not provide substantial evidence regarding any deficiency in the cumulative impact analysis or identify any significant environmental impact that was not properly disclosed and/or mitigated in the Draft EIR.

See Responses to GSEJA-9 and GSEJA-24.

The project site is currently designated Industrial and Light Industrial and would be developed with uses permitted under those designations and pursuant to applicable FAR and other development standards in accordance with the City's land use vision as reflected in its General Plan. Thus, the project is consistent with the buildout scenario contemplated in the General Plan and is thus properly accounted for in the growth projections of the General Plan as well as the RTP/SCS and AQMP. The fact that the City may be considering requested entitlements for a range of other industrial projects consistent with the General Plan vision does not trigger any type of additional "consistency" analysis under CEQA, as alleged by the commenter, particularly where, as here, the City has prepared a ground-up environmental analysis. Thus, no further response or revision is warranted based on this comment.

It is reasonable to assume, given the nature of the local employment population combined with the nature of the project, that employment needs generated by the proposed project would be able to be filled primarily by employees who live within the City and nearby unincorporated areas in the County. As such and as further addressed in the analysis in the Draft EIR, although increased industrial growth may occur, it would not result in unanticipated growth that would lead to the need for unplanned housing.

Regarding the specific comment about the scope of cumulative projects considered in the analysis, see Responses to GSEJA-6 and LOCAL1109-4.

Based on the foregoing and as further detailed in the Draft EIR, the CEQA evaluation adequately analyzed the project's impacts (both individual and cumulative) as required under CEQA, and no revisions to the Draft EIR are warranted.

No further response is required.

Comment LOCAL1109-6
The commenter states that the Draft EIR omits critical supporting information regarding the proposed project's agricultural resources impacts and improperly finds that the proposed project's Impact AG-5 would be less than significant. The commenter asserts that because the proposed project would promote additional growth in the City, the proposed project could lead to secondary impacts related to the conversion of agricultural lands to additional housing or public services. The comment concludes the EIR should be revised to include the foregoing analysis and recirculated.

Response to LOCAL1109-6
The comment is noted for the record.

See Responses to CDOC-2, GSEJA-24, and GSEJA-25.

Adjacent agricultural lands would need to be annexed into the City and would require the completion of CEQA analysis prior to the discretionary approval of any development. However, the proposed project does not include the annexation of these lands and, therefore, would not result in a change in the existing environment that could result in conversion of Farmland to nonagricultural use. Though there is a possibility this land would be converted to nonagricultural uses in the future, the proposed project would not be the cause of that conversion, as explained further above and in the Draft EIR. As such, the Draft EIR accurately evaluates that the proposed project would not involve other changes in the existing environment which could result in conversion of other Farmland to nonagricultural use such that a significant impact would occur.

The Lead Agency is of the opinion that this Draft EIR and the public review process has sufficiently complied with State CEQA Guidelines. The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA. Based on the information presented above, the Lead Agency is of the opinion that potential project and cumulative impacts have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required.

Comment LOCA1109-7
The commenter purports to set forth various legal principles regarding alternatives and mitigation under CEQA. The commenter states that the Draft EIR's analysis of agricultural resources impacts fails to consider and implement all feasible mitigation measures. The Draft EIR concludes that the proposed project would have a significant and unavoidable impact with regard to converting Prime Farmland to nonagricultural uses and that no feasible mitigation measures are available. The commenter also states that the Draft EIR lacks adequate evidence to support a finding that no feasible mitigation is available and suggests potential mitigation, including purchases of agricultural easements, payment of a mitigation fee, protection of part of the project site for agricultural uses, adequate buffering to protect neighboring agricultural areas, and the recordation of a Right to Farm certificate.

Response to LOCAL1109-7
To the extent the comment involves general statements of law and does not raise any specific project-related issues under CEQA, no further response is necessary,

Regarding the comment's specific concerns about mitigation, see Response to CDOC-3 (see also CEQA Guidelines § 15126.4(a)(4) (mitigation measures must be consistent with all applicable constitutional requirements); CEQA Guidelines § 15126.4(a)(5) (If lead agency determines that mitigation measure cannot be legally imposed, measure need not be proposed or analyzed. Instead, EIR may simply reference that fact and briefly explain the reasons underlying the lead agency's determination).

The Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required.

Comment LOCAL1109-8
The comment briefly summarizes some of the Draft EIR's air quality impact conclusions and then asserts generally that the Draft EIR fails to include substantial evidence to support a finding that no other feasible mitigation exists to mitigate identified air quality impacts. The comment also frames MM AIR-2c as including language that treats the measures as "optional" or able to be "deferred." It then concludes that mitigation should be revised to confirm that such service vehicles utilize zero-emission technology without qualification.

Response to LOCAL1109-8
To the extent the comment is general in nature and does not identify any alternative mitigation measure that would demonstrate its claim that the Draft EIR has failed to consider and implement "all feasible mitigation measures," or otherwise raise a specific environmental issue under CEQA, no further response is required.

Regarding the specific concern regarding the purported "optional language" of MM AIR-2c, this is not an accurate representation of the obligation set forth in the mitigation and the related Draft EIR discussion. The Draft EIR includes lengthy discussion surrounding MM AIR-2c and its benefits, but also its limitations from a feasibility standpoint. MM AIR-2c itself outlines an enforcement mechanism that "all on-site off-road and on-road service equipment will utilize zero-emission technology, subject to the same being commercially practicable," and that "the relevant project sponsor shall provide reasonable documentation to. . . the City of Visalia Planning Division" for verification. The Draft EIR concluded that implementation of this measure would help to reduce the proposed project's emissions. Nevertheless, the Draft EIR properly disclosed that implementation of MM AIR-2c (and other mitigation measures) could not be guaranteed because the commercial availability of such equipment may be limited (at least in the near-term). Accordingly, the Draft EIR identified the impact and properly disclosed the limitations of the measure; i.e., it would reduce but cannot be guaranteed to fully mitigate the proposed project's emissions to below significance thresholds. In other words, the Draft EIR does not rely upon MM AIR-2c to reduce the proposed project's emissions to below significance thresholds or downplay the proposed project's impacts. The Draft EIR explains that the emissions reductions provided by MM AIR-2c cannot be guaranteed or even reliably modeled and that impacts would remain significant and unavoidable. Thus, the Draft EIR disclosed the impact would remain significant and unavoidable, as it is required to do under CEQA.

The following considerations are also important in understanding MM AIR-2c. For purposes of a conservative analysis, the Draft EIR evaluated a "reasonable worst-case" analytical scenario in which the proposed project is fully implemented by 2028. Given the size and nature of the project, it would be entirely reasonable to conclude the that construction could potentially stretche to 2033 or beyond. Zero-emission vehicle technology is a rapidly developing field: it is unknown what conceptual technologies today may mature into commercially viable solutions over the course of the proposed project's development timeline. Options that are not commercially viable today could be cost-leading in a matter of years. And though a wide array of zero-emission service equipment is available currently (e.g., forklifts, pallet jacks, flat trucks, etc.), and the Draft EIR reasonably anticipates their usage in accordance with MM AIR-2c and other regulatory and commercial considerations, future tenants and their service equipment needs—some of which may be specialized—are unknown at this time. These factors make it infeasible to require that all "service vehicles. . . utilize zero-emission technology without any qualification," as the comment suggests. Ultimately, MM AIR-2c represents the proposed project's good faith attempt at installing the farthest-reaching, but still feasible, zero-emission equipment requirement to reduce emissions, subject to such equipment being commercially available, as confirmed by the City's Planning Divisionat the time of individual tenant permitting.

The Lead Agency is of the opinion that potential project impacts related to air quality have been fully disclosed, adequately analyzed, and appropriately mitigated to the extent feasible under CEQA; therefore, no further analysis or revisions are required.

See Responses to LIUNA-4 and LIUNA-20.

Comment LOCAL1109-9

The comment acknowledges that the Draft EIR disclosed that certain noise impacts were potentially significant. However, the comment states that the mitigation measures were deficient; in particular, the comment references MM NOI-1, which it characterizes as improperly deferring mitigation. Rather than deferring implementation of this acoustical analysis, the comment asserts this analysis should be conducted as part of the Draft EIR so that decision-makers will have access to necessary information before project approval.

Response to LOCAL1109-9

The comment is noted. The comment is mistaken in its characterization of MM NOI-1 as constituting improper deferral of mitigation. While CEQA Guidelines Section 15126.4(a)(1)(B) clarifies that formulation of mitigation measures should not be deferred until some future time, CEQA permits the specific details of a mitigation measure to be developed after project approval when "it is impractical or infeasible to include those details during the project's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will considered, analyzed, and potentially incorporated in the mitigation measure."

The Draft EIR's car wash noise analysis and MM NOI-1 were carefully crafted to adhere to these requirements. As explained in the Draft EIR, given the nature and scope of the project, which is intended to be built in phases over time, there are currently no available details pertaining to the design of the car wash or its mechanical equipment. These details are critical for the evaluation and mitigation of car wash noise impacts because car wash noise impacts are highly correlated with specific design details (i.e., what is the orientation of the tunnel to receptors and the direction of the conveyance system?) and mechanical equipment selections (i.e., what type of blowers will the tunnel utilize and what is their manufacturer sound rating?).

Given this it is both impractical and infeasible to include these details in the Draft EIR (or related acoustical analysis) at this point, the analysis assumed typical "reasonable worst-case" noise levels for estimation of the car wash's noise impacts in a good faith effort to consider and disclose the project's potential impacts to the extent information is reasonably available, and MM NOI-1 adopted the requirements set forth by CEQA Guidelines Section 15126.4(a)(1)(B). The following is a summary of the requirements outlined by CEQA Guidelines Section 15126.4(a)(1)(B) and a discussion of how MM NOI-1 meets these requirements, contrary to the comment's assertions:

- *Commits itself to the mitigation*

MM NOI-1 requires that an acoustical study be prepared by a qualified acoustical professional and submitted to the City of Visalia Planning and Community Preservation Department prior to the issuance of a building permit for a drive-through car wash. The scope of the acoustical analysis is delineated, and the measure requires the study to demonstrate that the design and operations of the car wash would not result in any exceedances of the Visalia Municipal Code's applicable daytime and nighttime noise limits (which are quantified and objective), and this compliance would ensure that impacts to surrounding residential land uses are less than significant.

- *Adopts specific performance standards the mitigation will achieve*

As noted above, MM NOI-1 establishes that car wash noise levels shall not result in exceedances of the Visalia Municipal Code's applicable daytime and nighttime noise limits, which are codified, objective and quantitative in nature, thus facilitating implementation.

- *Identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure*

MM NOI-1 includes a list of design features that individually or collectively would aid in satisfying the applicable performance criteria, which would be the Visalia Municipal Code's applicable daytime and nighttime noise limits. CEQA Guidelines Section 15126.4(a)(1)(B) also instructs that compliance with regulatory standards—in this case the Visalia Municipal Code's daytime and nighttime noise limits—may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact. To this end, the Draft EIR explained that the City's 50 dBA L_{eq} daytime and 45 dBA L_{eq} nighttime standards are well below existing ambient noise conditions surrounding the nearest receptors. Therefore, compliance with these standards, as mandated by MM NOI-1, would be highly protective of ambient noise conditions and would result in a less than significant impact.

The comment provides no competing explanation as to why MM NOI-1 allegedly fails the requirements established by CEQA Guidelines Section 15126.4(B).

Based on the foregoing and as further discussed in the Draft EIR, no revisions are warranted.

Comment LOCAL1109-10
The comment provides concluding remarks to the comment letter, including a request to revise and recirculate the Draft EIR because the comment purports that the Draft EIR violates CEQA in multiple respects.

Response to LOCAL1109-10
The comment is noted. To the extent it does not include any project-specific environmental issues under CEQA, no further response is required.

Please see Responses to LOCAL1109-2 through LOCAL1109-9 for responses to specific concerns that the commenter raises with regard to the Draft EIR. No further response is required.

Comment LOCAL1109-11
The comment introduces the purpose of the technical report being submitted. It does not identify any alleged specific deficiency in the Draft EIR but instead purports to summarize the methodologies utilized in CalEEMod modeling and the GHG reduction potential of local hire provisions for construction workers in general.

Response to LOCAL1109-11
The comment is noted. Because the comment does not raise any project-specific environmental issues, no further response is required.

For informational purposes, the following is noted. The commenter is advocating for imposition of local hire requirements with respect to the carpenters union, which would apply only during the construction phase of the proposed project. The commenter states potential reductions of vendor trips (i.e., VMT associated with vendors) and GHG emissions that would result from such requirements. However, any environmental benefits that would be realized as a result of local hire requirements would apply only during the construction phase. As explained in the Draft EIR, the proposed project would result in less than significant GHG-related construction and operation impacts after mitigation. Therefore, additional mitigation—such as a local hire provision for construction workers—is not necessary or required under CEQA.

See also Responses to CDOC-2, LIUNA-13, and LOCAL1109-2.

Comment LOCAL1109-12
The comment provides a disclaimer regarding the right to revise or amend this SWAPE report if additional information regarding the proposed project becomes available. The comment also states that the SWAPE report may contain informational gaps, inconsistencies, or be incomplete due to the unavailability or uncertainty of information provided by third parties.

Response to LOCAL1109-12
The comment is noted. Because no project-specific environmental issues are raised, no further response is required.

For informational purposes, see also Response to LOCAL1109-1.

Comment LOCAL1109-13
The comment consists of data tables and modeling output documentation in support of Comment LOCAL1109-11.

Response to LOCAL1109-13
The comment is noted. No project-specific environmental issues are raised, no further response is required. For informational purposes, see also Response to LOCAL1109-11.

Comment LOCAL1109-14
The comment provides a CV for Paul Rosenfeld, Principal Environmental Chemist, who prepared a review letter of the air quality analysis of the Draft EIR.

Response to LOCAL1109-14
The comment is noted. Because no project-specific environmental issues are raised, no further response is required.

Comment LOCAL1109-15
The comment provides a CV for Matthew F. Hagemann who prepared a review letter of the air quality analysis of the Draft EIR.

Response to LOCAL1109-15
The comment is noted. Because no project-specific environmental issues are raised, no further response is required.

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

June 04, 2024

Brandon Smith, Principal Planner
City of Visalia
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Subject: **Shirk and Riggin Industrial Project (Project)**
Draft Environmental Impact Report (DEIR)
SCH: 2022080658

Dear Brandon Smith:

The California Department of Fish and Wildlife (CDFW) received a DEIR from the City of Visalia for the Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code. While the comment period may have ended, CDFW respectfully requests that the City of Visalia still consider our comments.

CDFW ROLE 1

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

Unlisted Species: Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or Federal list to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T, as specified in the CEQA Guidelines section 15380, CDFW recommends it be fully considered in the environmental analysis for the Project. 2

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include sections 3503 (regarding unlawful take, possession, or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

PROJECT DESCRIPTION SUMMARY

Proponent: Seefried Industrial Properties, Inc.

Objective: The Project applicant proposes to convert existing agricultural lands and develop the approximately 284-acre Project site into an industrial park, consisting of eight industrial buildings used for warehouse, distribution, and light manufacturing; six flex industrial buildings; two drive-through restaurants; a convenience store; a recreational vehicle (RV) and self-storage facility; gas station; and a car wash. The total building footprint is approximately 3,720,149 square feet. 3

Location: The Project site is located in Tulare County, generally bound by Riggin Avenue to the south, Shirk Street to the east, Kelsey Street to the west, and Modoc Ditch to the north. The Assessor's Parcel Numbers (APNs) associated with the Project site are 077-840- 004, 077-840-005, and 077-840-006 (formerly APNs 077-840-001, 077-840-002, and 077-840-003).

Timeframe: N/A

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Visalia City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the DEIR prepared for the Project. 4

Currently, the DEIR acknowledges that the Project area is within the geographic range of several special status animal species and proposes specific mitigation measures to reduce impacts to less than significant. CDFW has concerns about the ability of some the proposed mitigation measures to reduce impacts to less than significant and avoid unauthorized take for several special status animal species, including the State threatened Swainson's hawk (*Buteo swainsoni*) and the State candidate endangered Crotch's Bumble bee (*Bombus crotchii)*.

Swainson's Hawk

Mitigation Measure MM BIO-1b proposes to mitigate for impacts to Swainson's hawk (SWHA) by requiring preconstruction surveys for nesting SWHA following the entire survey methodology developed by the SWHA Technical Advisory Committee (SWHA TAC Methodology; SWHA TAC 2000). CDFW concurs with this portion of the measure as it follows CDFW guidance. This measure also states the following:

1. Construction activities shall be prohibited within 600 feet of an active and occupied Swainson's hawk nest or within 600 feet of nests under construction to prevent nest abandonment unless a smaller buffer is approved pursuant to subsection (2) below. This incorporates the maximum avoidance buffer size stated in the California Department of Fish and Wildlife (CDFW) Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. 5

2. If site-specific conditions or the nature of the construction activity (e.g., other nearby development, limited activities) indicate that a smaller buffer, or no buffer at all, could be used, the project developer may seek approval from the qualified Biologist who, in coordination with the CDFW, shall determine the appropriate buffer size, which, once approved, shall govern."

CDFW does not concur with this portion of the measure and implementation of the proposed 600-foot buffer (or smaller buffer based on MM BIO-1b 2.), as it is likely to result in the unauthorized take of SWHA. CDFW would also like to note that the SWHA TAC Methodology requires consultation with CDFW if an active nest is documented within ½-mile of Project activities. CDFW would like to further reiterate that it does not concur with MM-BIO 1b, 1. and 2. and recommends the following:

Recommended Mitigation Measure 1: SWHA Avoidance Buffer

If Project-specific activities will take place during the SWHA nesting season (i.e., March 1 through September 15), and active SWHA nests are present, CDFW recommends a minimum ½-mile no-disturbance buffer be delineated and maintained around each nest, regardless of whether it was detected by surveys or observed incidentally. These buffers would remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, to prevent nest abandonment and other take of SWHA as a result of Project activities. 5 CONT

Recommended Mitigation Measure 2: SWHA Take Authorization

CDFW also recommends that in the event an active SWHA nest is detected, and a ½-mile no-disturbance buffer is not feasible, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the acquisition of an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Crotch's Bumble Bee

Mitigation Measure MM BIO-1d proposes to mitigate for impacts to Crotch's bumble bee (CBB) by requiring preconstruction surveys no more than 14 days prior to construction. CDFW concurs with conducting surveys for CBB during the blooming period immediately prior to ground disturbing activities. CDFW recommends these surveys follow the survey methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023) protocol. In the event a CBB nest is detected within the Project, consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. If take cannot be avoided, CDFW recommends the Project obtain an ITP, pursuant to Fish and Game Code section 2081 subdivision (b). 6

Editorial Comments and/or Suggestions

Lake and Streambed Alteration 7

Mitigation Measure (MM) BIO-3 mitigates for potential impacts to streams subject to CDFW's regulatory authority pursuant to Fish and Game Code section 1600 et seq. by requiring the Project proponent to "submit a preliminary Jurisdictional Delineation and coordinate with" the appropriate regulatory agencies, including CDFW. CDFW concurs with this measure and recommends the Project applicant submit a notification pursuant to Fish and Game Code section 1602 to assist with review of the submitted delineation materials. CDFW would also like to note that Project activities that substantially change the bed, bank, and channel of any river, stream, or lake are subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation): (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral or intermittent as well as those that are perennial and may include those that are highly modified such as canals and retention basins. 7 CONT

CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement (LSAA); therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts to lakes or streams, a subsequent CEQA analysis may be necessary for LSAA issuance. For information on notification requirements, please refer to CDFW's website (https://wildlife.ca.gov/Conservation/LSA) or contact CDFW staff in the Central Region Lake and Streambed Alteration Program at (559) 243-4593.

Cumulative Impacts: CDFW recommends that a cumulative impact analysis be conducted for all biological resources that will either be significantly or potentially significantly impacted by implementation of the Project, including those whose impacts are determined to be less than significant with mitigation incorporated or for those resources that are rare or in poor or declining health and will be impacted by the Project, even if those impacts are relatively small (i.e., less than significant). Cumulative impacts are recommended to be analyzed using an acceptable methodology to evaluate the impacts of past, present, and reasonably foreseeable future projects on resources 8
and be focused specifically on the resource, not the Project. An appropriate resource study area should also be identified and mapped for each resource being analyzed and utilized for this analysis. CDFW recommends closely evaluating the need for a cumulative impacts analysis for the following species as part of the DEIR due to these species being in poor or declining health or at risk: SWHA and CBB. CDFW staff is available for consultation in support of cumulative impacts analyses as a trustee and responsible agency under CEQA.

California Natural Diversity Database

9

Please note that the California Natural Diversity Database (CNDDB) is populated by voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDB but where there is suitable habitat and features capable of supporting species. A lack of an occurrence record, or lack of recent occurrence records, in the CNDDB does not mean that a species is not present. In order to adequately assess any potential Project-related impacts to biological resources, surveys conducted by a qualified biologist during the appropriate survey period(s) and using the appropriate protocol survey methodology are warranted in order to determine whether or not any special status species are present. 9 CONT

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals. 10

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089). 11

CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR to assist the City of Visalia in identifying and mitigating Project impacts on biological resources.

Please see the enclosed Mitigation Monitoring and Reporting Program (MMRP) table which corresponds with recommended mitigation measures in this comment letter. More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (https://www.wildlife.ca.gov/Conservation/Survey-Protocols). Questions regarding this letter or further coordination should be directed to John Riedel, Environmental Scientist, at (559) 807-1453, or john.riedel@wildlife.ca.gov. 12

Sincerely,

DocuSigned by:
FA83F09FE08945A...

Julie A. Vance
Regional Manager

ec: State Clearinghouse
Governor's Office of Planning and Research
State.Clearinghouse@opr.ca.gov

REFERENCES

California Department of Fish and Wildlife. 2023. Survey considerations for California Endangered Species Act candidate bumble bee species. California Department of Fish and Wildlife, Sacramento, California, USA.

Swainson's hawk technical advisory committee (SWHA TAC). 2000. Recommended timing and methodology for Swainson's hawk nesting surveys in the central valley of California. Swainson's Hawk Technical Advisory Committee.

Attachment 1

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM
(MMRP)**

PROJECT: Shirk and Riggin Industrial Project

SCH No.: 2022080658

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
SWHA	
Recommended Mitigation Measure 2: SWHA take authorization	
During Construction	
SWHA	
Recommended Mitigation Measure 1: SWHA avoidance buffer	

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Comments Received after the May 29, 2024 Close of Public Comment Period

California Department of Fish and Wildlife (CDFW)

Comment CDFW-1
The commenter offers thanks for the opportunity to provide comments and recommendations regarding the proposed project and sets forth CDFW's scope of regulatory authority with respect to its role as a Trustee Agency. The commenter also acknowledges that the comment letter was submitted after the Draft EIR comment period ended but requests that the City still consider its comments.

Response to CDFW-1
Thank you for your comments. The participation of the CDFW in the public review of this document is appreciated. The comments have been noted for the record.

A lead agency is required to consider comments on the Draft EIR and to prepare written responses if a comment is received within the public comment period (Public Resources Code [PRC] § 21091(d); CEQA Guidelines § 15088). When a comment letter is received after the close of the public comment period, however, a lead agency does not have an obligation to respond (PRC § 21091(d)(1); PRC § 21092.5(c)). Accordingly, although the City, as Lead Agency under CEQA, is not required to provide a written response to late comment letter(s), the City has elected to respond to the late letter submitted by CDFW, but without waiving its position that written responses to late comment letters are not required by law. The commenterdoes not raise any specific project-related environmental issues under CEQA and therefore no response is required.

Comment CDFW-2
The commenter clarifies its role as a Responsible Agency regarding "take," unlisted species, and nesting birds and provides a related summary.

Response to CDFW-2
The comment does not raise any specific project-related environmental issues under CEQA and therefore no response is required.

Comment CDFW-3
The commenter provides a summary regarding the project description.

Response to CDFW-3
The comment does not raise any specific project-related environmental issues under CEQA and therefore no response is required.

Comment CDFW-4
The commenter provides introductory remarks regarding the scope of CDFW's comments. It also notes that CDFW has concerns about the ability of the proposed mitigation measures to reduce impacts to several special-status animal species to less than significant and to avoid unauthorized take.

Response to CDFW-4
Because the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

Comment CDFW-5

With respect to proposed mitigation related to impacts on Swainson's hawk, the commenter states that it concurs with portions of MM BIO-1b, noting that it complies with CDFW guidance. However, the commenter states that it does not concur with those portions of MM BIO-1b (1)(2), regarding the proposed 600-foot buffer (or smaller buffer based on MM BIO-1b (2)), as the commenter believes it is likely to result in the unauthorized take of Swainson's hawk. The commenter also notes that the TAC Methodology for Swainson's hawk requires consultation with CDFW if an active nest is documented within 0.25 mile of project activities. Thus, the commenter recommends revised language.

Response to CDFW-5

The Draft EIR, Section 3.4, Biological Resources, provided a detailed discussion of the environmental setting, including disclosing the wildlife species observed or that have the potential to occur within the project site, including, among others, Swainson's hawk. Specifically, the Draft EIR noted that Swainson's hawk is known to occur near the project site, and while almond orchards are not considered Swainson's hawk foraging habitat, the analysis recognized that this species is known to forage in alfalfa fields and open low crop and grasslands and these habitat types are present adjacent to the project site. Therefore, the analysis concluded there is a moderate potential for this species to occur on-site.

The Draft EIR's regulatory setting described the statutory framework governing special-status wildlife species consistent with the commenter's summary, including noting the relevance of the *California Department of Fish and Wildlife–Swainson's Hawk Nesting Survey Guidelines (TAC Methodology)* and the recommended buffer and consultation requirements discussed by the commenter. The impact analysis evaluated potential project-related impacts on Swainson's hawk and identified feasible avoidance and minimization measures to reduce potential project-related impacts to less than significant levels.

The analysis explained that Swainson's hawks readily habituate to a variety of human disturbances, including construction. Swainson's hawk nests are often found along busy roadways and in a variety of settings where substantial noise and other disturbances occur, including in agricultural areas. There are conditions, however, where the potential for nest abandonment is increased. This can occur when new disturbances are introduced to an otherwise open, rural setting. Under these conditions, the Draft EIR noted that no-disturbance buffers are important to avoid nest abandonment. No-disturbance buffers are intended to prevent all ground-disturbing activities and project-related entry of any sort into the buffer area. Although tolerant of human presence and activities, Swainson's hawk are most sensitive to direct observation of the nest by people. Therefore, restrictions within buffers should prohibit all entry and direct observation of the nest.

The Draft EIR confirmed that the project developer(s) would be responsible for compliance with all applicable laws and regulations protecting Swainson's hawk, including applicable provisions of CESA, MBTA, and the Fish and Game Code; thus, for example, such compliance with the comprehensive regulatory requirements would ensure that no unauthorized take would occur. The analysis also identified feasible mitigation, including a proposed 600-foot buffer from active nests and those under construction. The basis for the proposed 600-foot buffer is further detailed in Section 3.4, Biological Resources.

The commenter also questions the Draft EIR concerning the argument for an insufficient buffer distance for occupied Swainson's hawk nests. According to Jim Estep, a recognized expert on Swainson's hawk, a 0.5-mile buffer is not supported by any data driven rationale. Estep argues that this distance was selected to maximally ensure that nesting behavior/success would not be influenced and is therefore a highly conservative buffer distance. Now, 30 years after these guidelines were created, much more is known of Swainson's hawk, including their high degree of tolerance to noise and disturbances. Although no studies have been conducted to understand the most effective buffer distance, it is understood that a 0.5-mile buffer is unnecessarily large. Many successful nests have been documented in very close proximity to a multitude of disturbances with nest abandonment involving the direct impact to nest trees or disturbances next to active nests. *CDFW's Swainson's Hawk Technical Advisory Committee* guidelines identify a 600-foot buffer resulting from the work of Mike Bradbury, a former California Department of Water Resources (DWR) employee. Through monitoring of nesting activity in the Sacramento-San Joaquin Delta, Bradbury determined that a 600-foot buffer was a reasonable distance in most cases. Ultimately Estep argues that this species is quite tolerant of disturbance events and a 0.5-mile buffer is not necessary in most cases. He supports a 600-foot buffer with the caveat that specific site conditions should be taken into consideration.[6]

Therefore, based on the data provided by the project's biological experts, the Lead Agency does not agree that a 600-foot buffer is insufficient. Although Swainson's hawk may forage within the project area, MM BIO-1a and MM BIO-1b would sufficiently mitigate for any Swainson's hawk found within 600 feet of the project site.

The commenter does not provide evidence to contradict the conclusions of the Draft EIR, and as such, the document has adequately addressed this issue under CEQA. Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA. No further analysis or revisions are required.

Comment CDFW-6

The commenter concurs with the portions of MM BIO-1d that require pre-construction surveys for Crotch's bumble bee (CBB) be constructed during the blooming period immediately prior to ground-disturbing activities. The commenter recommends that the methodology outlined in specified CDFW protocol be followed when conducting these surveys. The commenter also notes that in the event a CBB nest is detected within the project site, then consultation with CDFW is warranted to discuss how to implement project activities and avoid take. If take cannot be avoided, the commenter recommends the project obtain an Incidental Take Permit (ITP). The commenter then recommends specific edits to MM BIO-1d (Crotch's Bumble Bee Surveys).

6 Estep, Jim. Estep Environmental Consulting. Personal communication: email. August 22, 2024.

Response to CDFW-6

This comment is noted for the record. The Draft EIR considered the potential for CBB to occur within the project site and determined, as explained more fully therein, this is unlikely because the entire project site consists of actively managed orchard and no required habitat elements for this species are present. Moreover, the Draft EIR explained that if it occurred, it would be limited to vagrant individuals dispersing across the project site to find suitable habitat. Therefore, it was determined that the project site does not include suitable habitat. However, for purposes of a conservative analysis, the Draft EIR identified mitigation that requires a pre-construction survey to confirm absence of this species from the project site (MM BIO-1d). Should CBB be detected, MM BIO-1d requires that the qualified Biologist coordinate with the CDFW to determine adequate protection measures as may be required under applicable laws and regulations and further requires that the relevant project developer(s) implement all such measures in connection with the development proposal at issue.

Section 3.4, Biological Resources, MM BIO-1d in of the Draft EIR has been revised to include the changes recommended by the CDFW:

MM BIO-1d Not more than 14 days before start of ground disturbance, a qualified Biologist shall conduct surveys to determine the presence/absence of the following special-status wildlife species: Crotch's bumblebee, San Joaquin kit fox, western burrowing owl, and American badger. Surveys conducted for Crotch's bumblebee shall follow the survey methodology outlined in the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) protocol. In the event a Crotch's bumblebee nest is detected within the Project, CDFW shall be consulted to the extent required under applicable laws and regulations to determine how best to implement Project activities and avoid take. If take cannot be avoided, an ITP shall be obtained to the extent required under applicable laws and regulations, pursuant to Fish and Game Code Section 2081 subdivision (b).

Should ~~any of the foregoing special-status wildlife species~~ San Joaquin kit fox, western burrowing owl, or American badger be detected, the qualified Biologist shall coordinate with the California Department of Fish and Wildlife (CDFW) and/or the United States Fish and Wildlife Service (USFWS) (as appropriate and to the extent required under applicable laws and regulations) to determine adequate protection measures as may be required under applicable laws and regulations, and the relevant project developer shall implement all such measures in connection with the development proposal at issue. Copies of all reports and communication with the appropriate wildlife agencies shall be submitted to the Lead Agency as evidence of compliance.

See also Section 3, Errata, of the Final EIR. The CEQA Guidelines require recirculation only when "significant new information" is added to an EIR after the Draft EIR is released for public review but before certification of the FEIR. (PRC § 21092.1; 14 CCR § 15088.5(a)). The foregoing reflects mere clarifications and amplifications; they would not result in a new significant impact or an increase in severity in a previously identified significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

Comment CDFW-7
The commenter characterizes its remaining comments (i.e., CDFW Comments 7 through 12) as "editorial comments and/or suggestions." With respect to Comment CDFW-7, the commenter requests revisions to MM BIO-3 and and recommends the project applicant submit a notification pursuant to Fish and Game Code Section 1602 to assist with review of the submitted delineation materials and then goes on to describe the regulatory requirements of the foregoing and related CEQA review.

Response to CDFW-7
This comment is noted for the record. MM BIO-3 in Section 3.4, Biological Resources, of the Draft EIR, has been revised to include the changes recommended by the CDFW:

MM BIO-3 The project developer shall submit the preliminary Jurisdictional Delineation (JD) and coordinate with the appropriate regulating agencies (Central Valley Regional Water Quality Control Board [RWQCB], California Department of Fish and Wildlife [CDFW] and the United States Army Corps of Engineers [USACE]) <u>to the extent required under applicable laws and regulations</u> to determine whether the Modoc Ditch is protected under Section 404 and 401 of the Clean Water Act (CWA), Porter-Cologne Water Quality Control Act, and/or Fish and Game Code 1602. <u>Additionally, to the extent required under applicable laws and regulations, the project applicant shall submit a notification pursuant to Fish and Game Code section 1602 to assist with review of the submitted delineation materials</u>

See also Section 3, Errata, of the Final EIR. The foregoing reflects mere clarifications and amplifications; they would not result in a new significant impact or an increase in severity in a previously identified significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

Comment CDFW-8
The commenter recommends closely evaluating the need for a cumulative impacts analysis, particularly with respect to Swainson's hawk and Crotch's bumblebee, as part of the EIR due to these species being in poor or declining health or at risk. As part of this analysis, the commenter recommends that an acceptable methodology be utilized to evaluate the impacts of past, present, and reasonably foreseeable future projects on resources and be focused specifically on the resource, not the project, and that an appropriate resource study area be identified and mapped for each resource being analyzed.

Response to CDFW-8
This comment is noted for the record. Cumulative impacts on biological resources are raised in Comment LIUNA-6. See Response to LIUNA-6. Based on the information previously presented above, the Lead Agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above

Comment CDFW-9
The commenter notes that because the CNDDB relies on voluntary submissions of species detection, as a result, species may be present in locations not depicted in the CNDDB where there is suitable habitat and features capable of supporting species. The commenter goes on to suggest that, in order to adequately assess any potential project-related impacts to biological resources, surveys conducted by a qualified Biologist during the appropriate survey period(s) and using the appropriate protocol survey methodology are warranted in order to determine whether or not any special-status species are present.

Response to CDFW-9
This comment is noted for the record.

See also Response to LIUNA-20.

Comment CDFW-10
The commenter states that CEQA requires that information developed in EIRs and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations, and requests that the City report any special-status species and natural communities detected during project surveys to the CNDDB.

Response to CDFW-10
This comment is noted for the record. Because the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

The City intends to adhere to any and all reporting requirements under CEQA, including those related to the detection of any special- status species and natural communities.

Comment CDFW-11
The commenter notes that because the proposed project would have an impact on fish and/or wildlife, it would be required to pay the necessary filing fees due to the CDFW, and then goes on to explain the timing requirements and legal implications of filing these fees.

Response to CDFW-11
The comment is noted for the record. Because the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required. It is reasonable to assume that the project applicant(s) would be required to pay all applicable fees necessary under the law to implement the proposed project.

Comment CDFW-12
The commenter states its appreciation for the ability to comment on the Draft EIR and provides contact information. The commenter also notes the attached MMRP table that corresponds with recommended mitigation measures in the comment letter.

Response to CDFW-12
The comment is noted for the record. Because the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

June 6, 2024

Brandon Smith
City of Visalia
Community Development Department
315 E. Acequia Avenue
Visalia, CA 93291

Project: Draft Environmental Impact Report – Shirk and Riggin Industrial Project

District CEQA Reference No: 20240472

Dear Mr. Smith:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Draft Environmental Impact Report (DEIR) from the City of Visalia (City). Per the DEIR, the project consists of converting existing agricultural lands to develop approximately 3,720,149 square foot industrial park, consisting of eight industrial buildings used for warehouse, distribution and light manufacturing; six flex industrial buildings; two drive-through restaurants; a convenience store; a recreational vehicle RV and self-storage facility; gas station and car wash on a 284-acre site (Project). The Project is located north of Riggin Avenue, west of Shirk Street, east of Kelsey Street, and south of Modoc Ditch in Visalia, CA. 1

The District offers the following comments at this time regarding the Project:

1) Project Related Construction Emissions

The DEIR, specifically page 3.3-45, indicates construction of the Project is expected to occur between years 2024 and 2028. However, per Appendix A in the DEIR, the construction analyses indicate construction of the Project is expected to occur between years 2024 to 2033. There are inconsistencies with the timeframe of the construction. Therefore, the District recommends that the DEIR be clarified for consistency. 2

Page 2 of 9

2) <u>Voluntary Emission Reduction Agreement</u>

The DEIR, specifically Mitigation Measure (MM) AIR-2g (Voluntary Emission Reduction Agreement) states "*Prior to issuance of the grading or building permit in connection with an individual specific development proposal for the proposed project, whichever occurs first, the relevant project sponsor shall consult with the City of Visalia Planning Division about the feasibility of entering into a VERA with the Valley Air District.*" Additionally, the DEIR concludes Project air quality emissions are expected to exceed the District's significance thresholds. As such, the District recommends MM AIR-2g be revised to consider requiring one VERA, for the entire Project as a whole.

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
3
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 agricultural equipment with the latest generation technologies.

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.

3) <u>Health Risk Screening/Assessment</u>

The District reviewed the Health Risk Assessment (HRA)/Ambient Air Quality Analysis (AAQA) for the Project and has the following comments:

4

- The DEIR states NOx, PM10, and PM2.5 would not exceed ambient air quality standards. However, an AAQA was not performed to verify these determinations. The District recommends conducting an AAQA to support the conclusions presented in the DEIR.

Page 3 of 9

- Variable emission rates were used for the construction activities in the HRA. The District recommends using a worker adjustment factor (WAF) in HARP2 to prevent underestimating worker risk. HARP2 assumes all sources of emissions are continuous and reduces worker exposure accordingly. Therefore, the WAF should be used for non-continuous sources. 5

- The DEIR states that there will be two quick serve restaurants (QSR) as part of the Project. Although, the specifics on the type of QSR are unknown at this time, the District recommends that the DEIR evaluate the health risk from potential Polycyclic Aromatic Hydrocarbons (PAHs) from commercial cooking operations. 6

- The operational health risk analysis assumed a 30-year residential exposure period for estimating of cancer risk. The District recommends estimating residential cancer risk using a 70-year exposure period. 7

Modifications to the HRA and/or AAQA based on the deficiencies listed above have the potential to cause the Project to exceed District health risk thresholds and/or cause or contribute to an exceedance of any ambient air quality standard. Therefore, the District recommends the HRA be revised and an AAQA be conducted to ensure the analysis is representative and adequately reflects the Project's potential air quality impacts. 8

4) Industrial/Warehouse Emission Reduction Strategies

The District recommends the City incorporate emission reduction strategies that can reduce potential harmful health impacts, such as those listed below: 9a

- Require cleanest available heavy-duty trucks and off-road equipment (see comment 6)
- Require HHD truck routing patterns that limit exposure of residential communities and sensitive receptors to emissions (see comment 5) 9b
- Require minimization of heavy-duty truck idling (see comment 8) 9c
- Orient loading docks away from sensitive receptors unless physically impossible 9d
- Require loading docks a minimum of 300 feet away from the property line of sensitive receptor unless dock is exclusively used for electric trucks 9e
- Require truck entries be located on streets of a higher commercial classification 9f
- 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 9g

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- Require power sources at loading docks for all refrigerated trucks have "plugin" capacity, which will eliminate prolonged idling while loading and unloading goods 9h
- Designate an area during construction to charge electric powered construction vehicles and equipment, if temporary power is available 9i
- Prohibit the use of non-emergency diesel-powered generators during construction 9j
- 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 9k

5) **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.

The District recommends the City 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. 10

6) **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 NOx emissions in the San Joaquin Valley. Accordingly, to meet federal air quality attainment standards, the District's ozone and particulate matter attainment plans rely on a significant and rapid transition of HHD fleets to zero or near-zero emissions technologies.

The Project will include warehouse and distribution and is expected to generate a high volume of HHD truck trips traveling to-and-from Project location at longer distribution trip length distances. Therefore, the District recommends that the following measures be considered by the City to reduce Project-related operational emissions: 11

- *Recommended Measure*: Fleets associated with operational activities utilize the cleanest available HHD trucks, including zero and near-zero technologies.

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7) Electric Infrastructure

The District recommends that the City require all nonresidential buildings be designed to provide electric infrastructure to support the use of on-road zero emissions vehicles, such as HHD trucks associated with an industrial development for warehouse and distribution.

To support and accelerate the installation of electric vehicle charging equipment and
development of required infrastructure, the District offers incentives to public 12
agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure (Level 2 and 3 chargers). The purpose of the District's Charge Up! Incentive program is to promote clean air alternative-fuel technologies and the use of low or zero-emission vehicles. The District recommends that the City and project proponents install electric vehicle chargers at project sites, and at strategic locations.

Please visit https://ww2.valleyair.org/grants/charge-up for more information.

8) Reduce Idling of Heavy-Duty Trucks

The goal of this strategy is to limit the potential for localized PM2.5 and toxic air contaminant impacts associated with the idling of HHD trucks. The diesel exhaust from idling has the potential to impose significant adverse health and environmental impacts.

13
Since the Project will result in HHD truck trips, the District recommends the DEIR be revised 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 City consider the feasibility of implementing a more stringent 3-minute idling restriction and requiring appropriate signage and enforcement of idling restrictions.

9) Under-fired Charbroilers

The Project will include commercial development with the potential for restaurants with under-fired charbroilers. Such charbroilers may pose the potential for immediate health risk, particularly when located in densely populated areas or near sensitive receptors.

14
Since the cooking of meat can release carcinogenic PM2.5 species, such as polycyclic aromatic hydrocarbons, controlling emissions from new under-fired charbroilers will have a substantial positive impact on public health. The air quality impacts on neighborhoods near restaurants with under-fired charbroilers can be significant on days when meteorological conditions are stable, when dispersion is

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limited and emissions are trapped near the surface within the surrounding neighborhoods. This potential for neighborhood-level concentration of emissions during evening or multi-day stagnation events raises air quality concerns.

Furthermore, reducing commercial charbroiling emissions is essential to achieving attainment of multiple federal PM2.5 standards. Therefore, the District recommends that the DEIR include a measure requiring the assessment and potential installation, as technologically feasible, of particulate matter emission control systems for new large restaurants operating under-fired charbroilers. 14 CONT

The District is available to assist the City and project proponents with this assessment. Additionally, the District is currently offering substantial incentive funding that covers the full cost of purchasing, installing, and maintaining the system during a demonstration period covering two years of operation. Please contact the District at (559) 230-5800 or technology@valleyair.org for more information, or visit: https://ww2.valleyair.org/grants/restaurant-charbroiler-technology-partnership/

10) Clean Lawn and Garden Equipment in the Community

Since the Project will include commercial development, gas-powered lawn and garden equipment have the potential to result in an increase of NOx and PM2.5 emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. 15

More information on the District CGYM program and funding can be found at: https://ww2.valleyair.org/grants/clean-green-yard-machines-residential/ and https://ww2.valleyair.org/grants/zero-emission-landscaping-equipment-voucher-program/.

11) 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. 16

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.

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The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: https://ww2.valleyair.org/rules-and-planning/current-district-rules-and-regulations. 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. 16 CONT

11a) District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 25,000 square feet of industrial development space.

The purpose of District Rule 9510 is to reduce the growth in both NOx and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NOx and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design. One AIA application should be submitted for the entire Project. 17

Information about how to comply with District Rule 9510 can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview

The AIA application form can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/forms-and-applications/

District staff is available to provide assistance, and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

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11b) 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 18
of emissions mitigate their emissions using Best Available Control Technology
(BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may 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.

11c) 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 19
options that work best for their worksites and their employees.

Information about District Rule 9410 can be found online at: https://ww2.valleyair.org/compliance/rule-9410-employer-based-trip-reduction/.

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

11d) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)

The Project will be subject to District Rule 4002 since the Project will include
demolition, renovation, and removal of existing structures. To protect the public
from uncontrolled emissions of asbestos, this rule requires a thorough 20
inspection for asbestos to be conducted before any regulated facility is
demolished or renovated. Any asbestos present must be handled in
accordance with established work practice standards and disposal
requirements.

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Information on how to comply with District Rule 4002 can be found online at: https://ww2.valleyair.org/compliance/demolition-renovation/. 20 CONT

11e) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). 21

12) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent. 22

If you have any questions or require further information, please contact Jacob Torrez by e-mail at Jacob.torrez@valleyair.org or by phone at (559) 230-6558.

Sincerely,

Tom Jordan
Director of Policy and Government Affairs

For: Mark Montelongo
Program Manager

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San Joaquin Valley Air Pollution Control District (SJVAPCD)

Comment SJVAPCD-1

This commenter provides introductory remarks and summarizes the proposed project.

Response to SJVAPCD-1

The commenter does not raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not required; no further response is required.

Comment SJVAPCD-2

The commenter notes a discrepancy in construction sequencing between the air quality appendix and the Draft EIR, wherein the air quality appendix references a construction end year of 2033 instead of 2028 as shown in the Draft EIR, and requests the inconsistencies be rectified.

Response to SJVAPCD-2

The comment is noted for the record. Appendix B of the Draft EIR included a California Emissions Estimator Model (CalEEMod) output file for Phase 3 that erroneously showed construction through year 2033 instead of year 2028, which did not match the results and information that were contained in the Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report or the Air Quality section of the Draft EIR. That portion of the appendix was erroneously compiled using an outdated file. However, this inadvertent error in the output file of appendix material did not affect the air quality analysis and finding because the actual modeling, which was relied upon in the analysis in the Draft EIR, was prepared using the correct files. However, for purposes of clarity in the record and in response to the comment, Appendix A of the Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report (Appendix B of the Draft EIR) has been updated; this updated Appendix is included in the Final EIR.

Similarly, although both sequential and concurrent phasing were considered for purposes of a conservative analysis, Tables 3.3-13 and 3.3-14 of the Draft EIR each had one erroneous footnote noting that the emissions represented concurrent phasing, when these tables actually present the calculations for sequential phasing which would last from year 2024 to 2028 as correctly shown in the tables. As noted above, the "Construction Phase 3–Mitigated" CalEEMod Output files on Pages 190-231 of Appendix A of the Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report (Draft EIR Appendix B) were replaced with CalEEMod output files that matched the emissions and construction duration presented in the EIR. The Final EIR Section 3, Errata removes the erroneous footnote in each table for clarification purposes to reflect consistency, as requested by the comment. The typographical error and subsequent revision do not affect the air quality modeling, analysis, and findings and no substantive revisions to the Draft EIR are necessary. The CEQA Guidelines require recirculation only when "significant new information" is added to an EIR after the Draft EIR is released for public review but before certification of the FEIR. (Public Resources Code § 21092.State CEQA Guidelines § 15088.5(a)). Analysis that is provided only for informational purposes (and that is not legally required) does not qualify as significant new information and would not result in a new significant impact or an increase in severity in a previously identified significant impact or otherwise trigger recirculation.

Comment SJVAPCD-3
The commenter recommends that Mitigation Measure (MM) AIR-2g in the Draft EIR be revised to include a requirement for the relevant project sponsor to enter into a Voluntary Emission Reduction Agreement (VERA) for the project and describes that a VERA is a contractual agreement between the project proponent and the SJVAPCD that can properly be characterized as an enforceable mitigation measure to mitigate project-related emissions.

Response to SJVAPCD-3
See Response LIUNA-4.

Comment SJVAPCD-4
The commenter notes that it reviewed the Health Risk Assessment (HRA)/Ambient Air Quality Analysis (AAQA) and provides the following comments. The commenter recommends that an AAQA be performed to confirm the Draft EIR's conclusion that the project would not exceed established ambient air quality standards for NOx, PM_{10}, and particulate matter 2.5 micrometers or less in diameter ($PM_{2.5}$).

Response to SJVAPCD-4
See Response to LIUNA-14.

The comment has been noted for the record. The commenter does not otherwise raise a substantive issue on the content of the EIR, and revisions to the Draft EIR are not necessary.

Comment SJVAPCD-5
The commenter notes that variable emission rates were used in the HRA, and requests that a worker adjustment factor (WAF) in HARP2[7] be used for estimating worker risk to ensure such risk is not underestimated. The commenter notes that HARP2 assumes all emissions are continuous and reduces worker exposure accordingly. The commenter concludes that WAF should be used for non-continuous sources.

Response to SJVAPCD-5
The commenter is specific to selecting a WAF to be used to prevent underestimating worker risk. It is unclear whether the commenter is referring to on-site or off-site workers. However, neither on-site nor off-site workers need to be specifically analyzed for the following reasons. As discussed in page 3.3-62 of Section 3.3, Air Quality, on-site workers are not required to be addressed through the HRA process, consistent with guidance published by the California Air Pollution Control Officers Association (CAPCOA), *Health Risk Assessments for Proposed Land Use Projects*, which indicates that on-site receptors are included in risk assessments if they are persons not employed by the proposed project. The only people who would be on-site for a significant period would be on-site workers. Therefore, an HRA for on-site receptors consisting of on-site workers is not required.

See Response GSEJA-7.

Therefore, the Draft EIR and related technical appendices adequately disclosed all assumptions and methodologies utilized in the HRA, including, among others, the ASF and FAH, and accurately

[7] HARP2 is the Hotspots Analysis Reporting Program, Health Risk Assessment Stand-alone Tool, Version 2.

evaluated and disclosed the project's potential health risk impacts. Based on the information presented above, the Lead Agency is of the opinion that project impacts related to air quality have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarification as noted above.

Comment SJVAPCD-6
The commenter notes that the project description contemplates two QSRs and asserts that although the specifics regarding the type of QSR are unknown at this time, the Draft EIR should nonetheless evaluate the health risk from potential polycyclic aromatic hydrocarbons (PAHs) from commercial cooking operations.

Response to SJVAPCD-6
It would be speculative to attempt this evaluation. Speculation is not required by CEQA because an EIR need not speculate on impacts that are not foreseeable (CEQA Guidelines § 15144 and §15145.) A potential health risk is too speculative to evaluate without knowing the specifics on the type of QSR and CEQA does not require a "worst-case" analysis, but merely what is reasonably foreseeable. While CEQA Guidelines §15144 acknowledges that some degree of forecasting is involved in preparing an EIR, and that an agency must use its best efforts to find out and disclose all that it reasonably can, CEQA also confirms that "foreseeing the unforeseeable is not possible." Pursuant to CEQA Guidelines §15146, the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the Draft EIR. Thus, CEQA limits the requirement for forecasting to that which could be reasonably expected under the circumstances and is part of the effort to provide a general "rule of reason" for EIR contents.

See Response GSEJA-7.

This comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment SJVAPCD-7
The commenter states that Draft EIR's operational health risk analysis assumed a 30-year residential exposure period for estimating cancer risk and that SJVAPCD recommends estimating residential cancer risk using a 70-year exposure period.

Response to SJVAPCD-7
See response to GSEJA-7.

Comment SJVAPCD-8
The commenter states that modifications to the HRA and/or AAQA based on the deficiencies listed by the comment have the potential to cause the project to exceed District health risk thresholds and/or cause or contribute to an exceedance of any ambient air quality standard. Therefore, the comment recommends that the HRA be revised and/or AAQA be conducted to reflect the comments above.

Response to SJVAPCD-8
Responses to each comment are shown in Response to SJVAPCD-4 through SJVAPCD-7, above. Warranted revisions were made to the HRA per Comment SJVAPCD-7. For the reasons set forth in the responses above and as otherwise documented in the EIR, the City, in its discretion as the Lead

Agency, has determined that the analysis reflected in the Draft EIR satisfies CEQA's requirements. Nonetheless, in order to be responsive to the commenter, the City has incorporated the above-described clarifying revisions, none of which would result in any significant changes to the Draft EIR, including, without limitation, changes to the significance conclusions. These modifications add clarity to the EIR and do not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

Comment SJVAPCD-9

The commenter recommends the City incorporate emission reduction strategies that can reduce potential harmful health impacts and then lists 11 suggested measures.

Response to SJVAPCD-9

The list of suggested measures and responses to each measure are discussed below. As identified in Section 3.3, Air Quality, and in accordance with the requirements under CEQA, a series of feasible mitigation measures have been identified, which would be imposed on the proposed project to reduce emissions and health risk impacts to the extent practicable. As requested by the commenter, the City and its consultants have considered the feasibility of incorporating the suggested additional measures. As detailed below, many of the recommended measures are required to be implemented by existing laws and regulations and/or are already included as part of the identified mitigation measures in the Draft EIR. The suggested measures that are not included are either not applicable to the proposed project, not required as project impacts related to the recommended measure would not occur, or because the project applicant and the Lead Agency do not have the authority to require or enforce the suggested measure, thereby rendering the recommendation infeasible, as detailed below.

The following responses include discussion of new mitigation measures suggested by the District. Under *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1993) 6 C4th 1112 and CEQA Guidelines Section 15088.5(a)(3)), when information added to the Final EIR consists of a suggested new mitigation measure, recirculation is only required if the mitigation measure meets each of the following criteria (*South County Citizens for Smart Growth v. County of Nevada* (2013) 221 CA4th 316, 330):

- It is feasible;
- It is considerably different from the alternatives or mitigation measures already evaluated in the Draft EIR;
- It would clearly lessen the project's significant environmental impacts; and
- It is not adopted.

For the reasons described herein, none of the above triggers has occurred with respect to the suggested measures, does not reflect a new or substantially increased significant impact or otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

See response to GSEJA-3 and AFTE-5.

Comment SJVAPCD-10
The commenter suggests that the City evaluate HDD truck routing patterns for the project with the aim of limiting exposure of residential communities and sensitive receptors to emissions. The comment then identifies the suggested components of such an evaluation, including consideration of the current truck routes, the quantity and type of each truck, trip destination/origin, traffic volume correlation with the time of day or the day of the week, overall VMT, associated exhaust emissions, and alternative truck routes.

Response to SJVAPCD-10
This suggested measure has been addressed in Response to SJVAPCD-9; the requested analysis is not warranted. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment SJVAPCD-11
The commenter generally summarizes the broad goal of making significant reductions in emissions from HHD trucks in order that the San Joaquin Valley be able to attain stringent health-based air quality standards, and thus Air District attainment plans rely on a "significant and rapid transition of HHD fleets to zero or near-zero emissions technologies." The comment then suggests that fleets associated with operational activities be required to utilize the cleanest available HHD trucks, including zero and near-zero technologies.

Response to SJVAPCD-11
To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

With respect to the specific suggested measure, this has been addressed in Response to SJVAPCD-9. For the reasons set forth therein and in the Draft EIR, and revisions to the Draft EIR are not warranted. The comment has been noted for the record.

Comment SJVAPCD-12
The commenter suggests that the City require all nonresidential buildings be designed to provide electric infrastructure to support the use of on-road zero emissions vehicles, such as HHD trucks associated with an industrial development for warehouse and distribution. The comment then summarizes generally the incentives offered by SJVAPCD to public agencies, business and property owners to support and accelerate the installation of EV charging equipment, as well as the purpose of SJVAPCD's Charge Up! Incentive program. The commenter makes a general recommendation that the City and project proponents install EV chargers at project sites, and at strategic locations.

Response to SJVAPCD-12
The comment is noted for the record. Since the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

For informational purposes, the following is noted. MM AIR-2d requires installation of infrastructure for EV charging stations for a minimum of 20 percent of all vehicle parking spaces (including parking for trucks), consistent with the applicable CALGreen Tier 1 Nonresidential Mandatory Measure (Section A5.106.5.3).

Furthermore, MM AIR-2d requires the buildings' electrical room to be sufficiently sized to hold additional panels that may be needed to supply power for the future installation of EV truck charging stations on the site. Therefore, this suggested general measure is similar to identified measures already identified in the Draft EIR that would be imposed on the project. Given the foregoing, the commenter does not otherwise raise a substantive issue on the content of the EIR. Revisions to the Draft EIR are not necessary. Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to air quality have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above.

Comment SJVAPCD-13
The commenter provides a general summary of the goal of idling restrictions in terms of limiting the potential for localized $PM_{2.5}$ and toxic air contaminant impacts. It then suggests that the Draft EIR be revised to (1) include measures to ensure compliance of the State anti-idling regulation (13 CCR § 2485 and 13 CCR § 2480) and (2) discuss the importance of limiting the amount of idling, especially near sensitive receptors. In addition, the commenter recommends the City consider the feasibility of implementing a more stringent 3-minute idling restriction and requiring appropriate signage and enforcement of idling restrictions.

Response to SJVAPCD-13
To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no revisions to the Draft EIR is required.

With respect to the specific suggested measure, State anti-idling regulations are discussed extensively in Section 3.3.2, Regulatory Framework, of Section 3.3, Air Quality, of the Draft EIR. The proposed project is required to comply with all applicable laws and regulations including the ones related to anti-idling. Therefore, this requested measure is similar to an existing regulation that would be applied to the proposed project, and thus no revisions to the Draft EIR are warranted.

With respective to a more stringent three-minute idling limit, the commenter has not demonstrated how the recommended mitigation would clearly lessen any significant environmental impacts compared to the mitigation measure already evaluated in the Draft EIR. Furthermore, as shown in Table 3.3-22, Section 3.3, Air Quality, of the Draft EIR, the proposed project would have less than significant combined construction and operation health risk impacts with implementation of feasible mitigation measures. Because the suggested measure would not reduce an environmental impact caused by the proposed project, there is no legal nexus of this measure to any identified impacts of the proposed project and thus the Lead Agency does not have the legal authority to impose such a restriction—which goes beyond the already-stringent requirements under State law—on the proposed project. Therefore, the suggested mitigation is not feasible, would not be necessary to reduce any significant impact from the proposed project, and is not required under CEQA. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment SJVAPCD-14
The commenter notes that the proposed project would include commercial development with the potential for restaurants with underfired char broilers. The comment goes on to make a general statement that such features, if used, may pose the potential for immediate health risk, particularly

when located in densely populated areas or near sensitive receptors, given the potential for release of emissions of $PM_{2.5}$ and PAH. The commenter then notes generally that controlling such emissions will have a positive impact on public health (and is essential for achieving attainment of multiple federal $PM_{2.5}$ standards) and provides a general summary of the foregoing issues with respect to neighborhood-level concentrations. Therefore, the commenter recommends a measure requiring the assessment and potential installation, as technologically feasible, of particulate matter emission control systems for new large restaurants operating underfired char broilers; notes the District's willingness to assist with this assessment; and confirms the availability of incentive funding to implement same.

Response to SJVAPCD-14
To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

As a preliminary matter, as noted in Response to Comment SJVAPCD-6, any underfired and chain driven char broilers installed as part of the project would be subject to any and all applicable SJVAPCD rules (such as Rule 4692, commercial char broiling) and/or any ARB/Statewide control measures in place at the time of construction, and any such emissions would be captured and controlled by provisions under SJVAPCD Stationary Source Rules and permitting processes and risks would be addressed at such time. Furthermore, also as discussed in Response to Comment SJVAPCD-9, the potential impacts of commercial cooking operations such as a char broiler, which may or may not be used in the proposed QSRs, are too speculative to analyze at this point as there are parameters currently unknown that are required to prepare a reasonable HRA of the proposed QSRs.

Additionally, the suggested measure is infeasible because there is a lack of evidence to support an essential nexus and rough proportionality between this requirement and the nature and extent of anticipated impacts associated with the project. Public agencies may use their discretionary powers granted by laws other than CEQA to mitigate environmental impacts. CEQA does not, however, expand the powers granted by other laws or otherwise confer an independent grant of authority to impose mitigation measures on a project. When imposing mitigation for a project's significant environmental effects, a public agency may only exercise those powers provided by legal authority independent of CEQA (PRC § 21004). The CEQA Guidelines specify that CEQA does not grant new or independent powers to public agencies (CEQA Guidelines § 15040). Accordingly, an agency's exercise of discretionary powers must be within the scope of the power granted by laws and be consistent with express or implied limitations (CEQA Guidelines § 15040(d), (e)). Mitigation measures that are beyond the powers conferred by law on lead agencies are legally infeasible. Here, the City, as Lead Agency, would have no legal authority to impose such a measure and thus it is infeasible. Accordingly, because conducting such an analysis would require speculation, and any such mitigation would be infeasible in any event. The commenter does not otherwise raise a substantive issue on the content of the EIR. No change is warranted and no further response is required.

For informational purposes, the following is noted. Currently, in general, the lack of commercially available and feasibly demonstrated control technologies is the primary barrier for moving forward with control strategies for char broiler emissions, both within the SJVAPCD and other air districts in the State and country. Based on available information from the District, the City understands the following. The SJVAPCD has done extensive research and testing on controls for such char broilers, including incentive funding and demonstration programs, with limited participation from eligible food industry sources.[8] The District has explored regulatory control requirements for these sources via an amendment to Rule 4692 but has not moved forward with any requirements requiring controls since the technology is not feasible or available. The District has, however, implemented a registration program for underfired char broilers that would meet or exceed a significance threshold based on the amount of meat that would be cooked on these units.

In December 2020, the SJVAPCD Governing Board adopted a comprehensive strategy to continue to address emissions from commercial underfired char broilers, focusing on continued research and education and Statewide partnership efforts.[9] The District is working with the ARB as they consider developing a Statewide Suggested Control Measure, working with the ARB/EPA in making improvements to the emissions inventory for commercial underfired char broiling, and formalizing the restaurant workgroup to stay connected with current industry conditions and to continue to develop and deploy underfired char broiler emissions control technology.

As per the District's own strategy report, 4,200 restaurants were contacted by the program, 15 restaurants evaluated the potential for control technology and ultimately none of these restaurants considered moving forward after this additional outreach. These evaluations consisted of a lengthy detailed analysis, where all businesses declined to move forward with controls due to feasibility issues related to the installation of the control devices and local permitting challenges, and concerns about the cost of maintenance after the funded 2-year demonstration period concluded under the Restaurant Char Broiler Technology Partnership (RCTP). The comments have been noted for the record and revisions to the Draft EIR are not necessary.

Based on the information presented above, the Lead Agency is of the opinion that potential project impacts related to air quality have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted above

Comment SJVAPCD-15
This comment notes that the proposed project would include commercial development, and then goes on to provide a general summary of how gas powered lawn and garden equipment have the potential to result in an increase of NO_X and $PM_{2.5}$ emissions. It then notes generally that utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The comment suggests the project applicant participate in SJVAPCD's Clean Green Yard Machines program which provides incentive funding for replacement of existing gas powered lawn and garden equipment.

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8 San Joaquin Valley Air Pollution Control District (SJVAPCD). 2022. Item Number 11: Adopt Proposed Commercial Underfired Charbroiling Emission Reduction Strategy. November. Website: https://ww2.valleyair.org/media/cbyjeiz5/12-20-strategy.pdf. Accessed July 1, 2024.

9 San Joaquin Valley Air Pollution Control District (SJVAPCD). 2022. Item Number 11: Adopt Proposed Commercial Underfired Charbroiling Emission Reduction Strategy. November. Website: https://ww2.valleyair.org/media/cbyjeiz5/12-20-strategy.pdf. Accessed July 1, 2024.

Response to SJVAPCD-15
To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

With respect to the specific suggested measure, MM AIR-2c requires that all on-site off-road and on-road service equipment, including lawn and garden equipment, utilize zero-emission technology, subject to the same being commercially practicable. Therefore, this suggested mitigation measure is similar to recommended measures already identified in the Draft EIR and thus no change is warranted. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment SJVAPCD-16
The commenter generally notes that the District issues permits for many different types of air pollution sources and regulates some activities that do not require permits. The comment then indicates that projects subject to District rules and regulations would reduce their air quality impacts through compliance with the regulatory framework. The comment goes on to provide a definition of a regulation and a general summary of the various regulations as examples, such as Regulation II, Rules 2010, 2201, and 2520.

Response to SJVAPCD-16
The commenter does not raise any specific project-related environmental issues under CEQA. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment SJVAPCD-17
This commenter states that the proposed project is submitted to District Rule 9510–Indirect Source Review (ISR) because it will receive a project-level discretionary approval from a public agency and will equal or exceeds 25,000 square feet of light industrial space. This comment provides a general summary of the requirements of District Rule 9510. The commenter states that the ISR Rule requires developers to mitigate their NO_X and particulate matter (PM) emissions by incorporating clean air design elements into their projects. Should the subject development's clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that funds incentive projects to achieve off-site emission reductions. The commenter also states that according to Section 5.0 of the ISR rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. The comment states that the District has not received an AIA application for the project, and requests immediate submittal of an AIA application to the District to comply with District Rule 9510.

Response to SJVAPCD-17
To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required. As noted in the Draft EIR, the proposed project would be required to comply with applicable SJVAPCD rules, plans and regulations and, as such, the project proponent would coordinate with the SJVAPCD as necessary. This comment does not otherwise raise a substantive issue on the content of the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment SJVAPCD-18

The commenter generally summarizes the definition of stationary source emissions, notes relevant District Rules 2010 and 2201, describes the nature of the mitigation that may be imposed generally under District Rule 2201; states that the proposed project may be subject to these rules; and the comment also recommends that the project applicant submit an application for an Authority to Construct (ATC) prior to construction.

Response to SJVAPCD-18

See Response to SJVAPCD-17, above. To the extent the commenter is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

Section 3.3, Air Quality, of the Draft EIR discusses at length the SJVAPCD's authority to regulate air pollution sources and confirms that the proposed project would be required to comply with all applicable District rules and regulations (e.g., page 3.3-25; see also discussion for Impact AIR-1). For purposes of further clarifying and amplifying the analysis, the SJVAPCD's Regulation II, Rules 2010 and 2201 have been added to Section 3.3, Air Quality, page 3.3-25 of the Draft EIR, and corresponding edits are reflected in Section 3.1 of the Errata. None of these clarifications and amplifications result in substantial changes to the EIR or any of the conclusions or would otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

Comment SJVAPCD-19

The commenter states that the proposed project may be subject to SJVAPCD Rule 9410, and then goes on to generally summarize how this rule imposes an obligation on specified employers to establish an Employer Trip Reduction Implementation Plan (eTRIP).

Response to SJVAPCD-19

See Response to SJVAPCD-17 and SJVAPCD-18, above. To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA. The comment is noted for the record and no further response is required.

Section 3.3, Air Quality, of the Draft EIR discusses at length the SJVAPCD's authority to regulate air pollution sources and confirms that the proposed project would be required to comply with all applicable District rules and regulations (e.g., page 3.3-25; see also discussion for Impact AIR-1). For purposes of further clarifying and amplifying the analysis, the SJVAPCD's Rule 9410 has been added to Section 3.3, Air Quality, page 3.3-26 of the Draft EIR, and corresponding edits are reflected in Section 3.1 of the Errata. None of these clarifications result in substantial changes to the EIR or any of the conclusions regarding potential impacts or would otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

Comment SJVAPCD-20

The commenter states that the proposed project would be subject to SJVAPCD's Rule 4002 since the proposed project would include demolition, renovation, and removal of existing structures. The comment then generally summarizes the requirements of this rule.

Response to SJVAPCD-20
See Response to SJVAPCD-17 through SJVAPCD-19, above. To the extent the comment is general in nature and does not raise any specific project-related environmental issues under CEQA, no further response is required.

Section 3.3, Air Quality, of the Draft EIR discusses at length the SJVAPCD's authority to regulate air pollution sources and confirms that the proposed project would be required to comply with all applicable District rules and regulations. In particular, the analysis considers impacts associated with the proposed demolition (see the discussion for Impact AIR-1 and Impact AIR-2). For purposes of further clarifying and amplifying the analysis, the SJVAPCD's Rule 4002 has been added to Section 3.3, Air Quality, page 3.3-25 of the Draft EIR, and corresponding edits are reflected in Section 3.1 of the Errata. None of these clarifications and amplifications result in substantial changes to the EIR or any of the conclusions or would otherwise trigger recirculation under CEQA Guidelines Section 15088.5.

Comment SJVAPCD-21
The commenter notes that the proposed project would be subject to SJVAPCD Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

Response to SJVAPCD-21
See Response to SJVAPCD-17 through SJVAPCD-20, above. Section 3.3, Air Quality, of the Draft EIR discusses at length the SJVAPCD's authority to regulate air pollution sources and confirms that the proposed project would be required to comply with all applicable District rules and regulations, including, among others, District Rule 4641 (e.g., pages 3.3-25 through -26 of the Draft EIR; see also discussion for Impact AIR-1). The comment has been noted for the record and revisions to the Draft EIR are not necessary.

Comment SJVAPCD-22
The commenter states that the SJVAPCD recommends that a copy of the District's comments be provided to the project proponent.

Response to SJVAPCD-22
SJVAPCD's comments have been provided to the project applicants and are included in the Final EIR for review by decision-makers and have been noted for the record.

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SECTION 3: ERRATA

The following are revisions to the Draft EIR for the proposed Shirk and Riggin Industrial Project (proposed project). These revisions are minor modifications, amplifications, and clarifications to the document and do not change the significance of any of the environmental issue conclusions within the Draft EIR. The revisions are listed by page number. All additions to the text are underlined (underlined) and all deletions from the text are in strikeout (~~strikeout~~).

As discussed below, these revisions are intended to clarify and amplify via the provision of additional information. The California Environmental Quality Act (CEQA) only requires recirculation of a Draft EIR when the lead agency adds "significant new information" to an EIR after public notice is given of the availability of a Draft EIR for public review but before EIR certification. (CEQA Guidelines Section 15088.5; see, e.g., *South County Citizens for Smart Growth v. County of Nevada* (2013) 221 CA4th 316, 330.)

Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. (CEQA Guidelines Section 15088.5(b).) When information added to the final EIR consists of revisions to mitigation measures and/or replaces mitigation measures, recirculation is required only if the new mitigation measure meets all of the following criteria:

- It is feasible;
- It is considerably different from the alternatives or mitigation measures already evaluated in the Draft EIR;
- It would clearly lessen the project's significant environmental impacts; and
- It is not adopted.

Recirculation is required only if each of the above tests is met. *South County Citizens*, 221 CA4th at 330. None of the clarifications or revisions identified below differ considerably from the analysis in the Draft EIR. Additionally, the clarifications and revisions identified below are all recommended for adoption. Accordingly, recirculation of the Draft EIR is not required.

3.1 - Changes in Response to Specific Comments

Executive Summary

Page ES-10–ES-12, Table ES-1: Executive Summary Matrix, Section 3.3—Air Quality

The following text has been updated:

MM AIR-2b Super Compliant Architectural Coating During Construction

Prior to issuance of a grading permit in connection with an individual specific development proposal for the proposed project, the relevant project sponsor shall submit to the City of Visalia ~~Planning Division~~ construction contracts and/or subcontracts reasonably documenting that all architectural coating material utilized in connection with the subject individual specific development proposal would not exceed 10 grams of volatile organic compound (VOC) per liter of coating.

To satisfy the above, the relevant project sponsor shall include in any construction contracts and/or subcontracts for the subject individual specific development proposal a requirement that all interior and exterior architectural coatings used in project construction meet the “supercompliant” coating VOC content standard of 10 grams or less of VOC per liter of coating. The relevant project sponsor shall also specify in the subject construction contracts and/or subcontracts the requirement to use high-volume, low-pressure spray guns during coating applications to reduce coating waste.

MM AIR-2c Electric or Zero-emission On-site Off-road and On-road Service Equipment

Prior to issuance of the construction grading permit in connection with an individual specific development proposal for the proposed project, the relevant project sponsor shall provide reasonable documentation to demonstrate to the City of Visalia ~~Planning Division~~ that all on-site off-road and on-road service equipment will utilize zero-emission technology, subject to the same being commercially practicable. Additionally, the relevant project sponsor shall provide reasonable documentation to the City of Visalia ~~Planning Division~~ that all proposed buildings in connection with the subject individual specific development proposal that would use on-site service equipment will be designed to include electric outlets to support the use of all-electric or zero-emission on-site service equipment, subject to the same being commercially practicable.

MM AIR-2d Electric Vehicle Charging Infrastructure

Prior to issuance of the grading or building permit in connection with an individual specific development proposal for the proposed project, whichever occurs first, the relevant project sponsor shall provide reasonable documentation to the City of Visalia ~~Planning Division~~ demonstrating that the subject individual specific development proposal shall incorporate infrastructure for electric vehicle (EV) charging stations into a minimum of 20 percent of all vehicle parking spaces (including parking for trucks), consistent with the applicable California Green Building Standards Code Tier 1 Nonresidential Mandatory Measure (Section A5.106.5.3). To satisfy the foregoing, EV charging spaces must provide electrical vehicle charging infrastructure to support future installation of EV supply equipment and shall meet the applicable design space requirements of California Green Building Standards Code Section 5.106.5.3.

In addition, the buildings’ electrical room shall be sufficiently sized to hold additional panels that may be needed to supply power for the future installation of EV truck charging stations on the site. Conduit should be installed from the electrical room to tractor trailer parking spaces in a logical location(s) on the site determined by the project applicant during construction document plan check, for the purpose of accommodating the future installation of EV truck charging stations at such time this technology becomes commercially available and the buildings are being served by trucks with electric-powered engines.

MM AIR-2e **On-Site Signage and Pavement Markings**

In connection with an individual specific development proposal for the proposed project, the relevant project sponsor shall provide reasonable documentation to the City of Visalia ~~Planning Division~~ demonstrating signage and pavement marking that show on-site circulation routes have been or will be included along the relevant portions of the project site driveways and internal roadways.

MM AIR-2f **Vegetative Barrier**

Prior to issuance of the grading or building permit in connection with an individual specific development proposal for the proposed project, whichever occurs first, the relevant project sponsor shall provide reasonable documentation to the City of Visalia ~~Planning Division~~ demonstrating the inclusion of a vegetative barrier along the south and east property boundaries of the project site. Prior to issuance of first occupancy permit, the project applicant shall demonstrate to the City of Visalia ~~Planning Division~~ the installation of the vegetative barrier at the described locations.

MM AIR-2g **Voluntary Emission Reduction Agreement**

Prior to issuance of the grading or building permit in connection with an individual specific development proposal for the proposed project, whichever occurs first, the relevant project sponsor shall consult with the City of Visalia ~~Planning Division~~ about the feasibility of entering into a Voluntary Emissions Reduction Agreement (VERA) with the Valley Air District.

Page ES-16–ES-18, Table ES-1: Executive Summary Matrix, Section 3.4—Biological Resources

The following text has been updated:

MM BIO-1d Not more than 14 days before start of ground disturbance, a qualified Biologist shall conduct surveys to determine the presence/absence of the following special-status wildlife species: Crotch's bumblebee, San Joaquin kit fox, western burrowing owl, and American badger. Surveys conducted for Crotch's bumblebee shall follow the survey methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023) protocol. In the event a Crotch's bumblebee nest is detected within the project site, CDFW shall be consulted to the extent required under applicable laws and regulations to determine how best to implement project activities and avoid take. If take cannot be avoided, an Incidental Take Permit (ITP) shall be obtained to the extent required under applicable laws and regulations, pursuant to Fish and Game Code Section 2081 subdivision (b).

Should ~~any of the foregoing special-status wildlife species~~ San Joaquin kit fox, western burrowing owl, or American badger be detected, the qualified Biologist shall coordinate with the California Department of Fish and Wildlife (CDFW) and/or the United States Fish and Wildlife Service (USFWS) (as appropriate and to the extent required under applicable laws and regulations) to determine adequate protection measures as may be required under applicable laws and regulations, and the relevant project developer shall implement all such measures in connection with the development proposal at issue. Copies of all reports and communication with the appropriate wildlife agencies shall be submitted to the lead agency as evidence of compliance.

The following standardized recommendations as outlined by the USFWS for the protection of San Joaquin Kit Fox shall be implemented during project construction:

1. Project-related vehicles should observe a daytime speed limit of 20throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Nighttime construction should be minimized to the extent possible. However, if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited.
2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2-feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the and the California Department of Fish and Game (CDFG) shall be contacted as noted under measure 13 referenced below.
3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the Biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.

5. No firearms shall be allowed on the project site.
6. No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.
7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.
8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the Service.
9. An employee education program should be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.
10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions.
11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for guidance.
12. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox.
13. The Sacramento Fish and Wildlife Office and CDFG shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must include the date, time,

and location of the incident or of the finding of a dead or injured animal and any other pertinent information.

14. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the Service at the address below.

Page ES-20–ES-21, Table ES-1: Executive Summary Matrix, 3.4—Biological Resources

The following text has been updated:

MM BIO-3 The project developer shall submit the preliminary Jurisdictional Delineation (JD) and coordinate with the appropriate regulating agencies (Central Valley Regional Water Quality Control Board [RWQCB], California Department of Fish and Wildlife [CDFW] and the United States Army Corps of Engineers [USACE]) to the extent required under applicable laws and regulations to determine whether the Modoc Ditch is protected under Section 404 and 401 of the Clean Water Act (CWA), Porter-Cologne Water Quality Control Act, and/or Fish and Game Code 1602. Additionally, to the extent required under applicable laws and regulations, the project applicant shall submit a notification pursuant to Fish and Game Code Section 1602 to assist with review of the submitted delineation materials.

If Modoc Ditch is considered jurisdictional by the regulating agencies, the relevant project developer shall, in accordance with all applicable laws and regulations, obtain the relevant permit applications based on coordination with the appropriate regulating agencies, if required prior to impacting any waters.

As part of these authorizations, compensatory mitigation may be required by the regulating agencies to offset the loss of aquatic resources. If so, and as part of the permit application process, a qualified professional shall draft a Mitigation and Monitoring Plan to address implementation and monitoring requirements under the permit(s) to ensure that the subject development proposal would result in no net loss of habitat functions and values. The Plan shall contain, at a minimum, mitigation goals and objectives, mitigation location, a discussion of actions to be implemented to mitigate the impact, monitoring methods and performance criteria, extent of monitoring to be conducted, actions to be taken in the event that the mitigation is not successful, and reporting requirements. The Plan shall be approved by the appropriate regulatory agencies and compensatory mitigation shall take place either on-site or at an appropriate off-site location, if required. Copies of the Plan and associated report shall be submitted to the lead agency as evidence of compliance.

Any material/spoils generated from project activities containing hazardous materials shall be located away from jurisdictional areas or special-status habitat and protected from stormwater runoff using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate and feasible. Protection measures should follow project-specific criteria as developed in a Storm Water Pollution Prevention and Protection Plan (SWPPP).

Equipment containing hazardous liquid materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and at least 50 feet outside the delineated boundary of jurisdictional water features.

Any spillage of material shall be stopped if it can be done safely and in a feasible manner. In the event of any such spillage, the contaminated area shall be cleaned by the party responsible for the spillage, and any contaminated materials properly disposed. For all spills, the project foreman or designated environmental representative shall be notified.

Page ES-30, Table ES-1: Executive Summary Matrix, Section 3.8—Greenhouse Gas Emissions

The following text has been updated:

MM GHG-2a ~~Rooftop Solar~~ Solar Photovoltaic System

~~Prior to issuance of the first building permit in connection with an individual specific development proposal, the relevant project applicant shall provide the City of Visalia Planning Department reasonable documentation demonstrating that each of the buildings that are covered by the subject individual specific development proposal would be designed with one of the following: (i) rooftop photovoltaic solar panels, (ii) solar-ready rooftop design that shall support the installation of rooftop photovoltaic panel, as feasible, or (iii) roofing material contains light coloring with a solar reflective index greater than 78.~~

Prior to issuance of the first building permit in connection with an individual specific development proposal, the City of Visalia shall confirm that the subject proposal has been designed to include the following: a solar photovoltaic (PV) system in accordance with 2022 Building Energy Efficiency Standards (Energy Code) Section 140.10. The required solar PV system shall be sized based on calculations provided in Section 140.10(a) of the Energy Code, which includes a number of factors such as the amount of conditioned space. Unconditioned buildings, except unoccupied or unused first-time tenant improvement spaces, do not need to be part of the solar sizing calculations. All buildings required to have a solar PV system pursuant to this MM GHG-2a must also have a battery storage system.

Page ES-31, Table ES-1: Executive Summary Matrix, Section 3.9—Hazards and Hazardous Materials

The following text has been updated:

MM HAZ-1 (a) Any known wells on the project site shall be delineated on an engineered site plan with a minimum 10-foot radius no build area.

(b) In the event that any abandoned or unrecorded wells are uncovered or damaged during excavation or grading activities, all work shall cease in the vicinity of the well, and the California Department of Conservation Geologic Energy Management (CalGEM), shall be contacted for requirements and approval; copies of said approvals shall be submitted to the City of Visalia Planning and Community Preservation ~~Planning~~ Department. CalGEM may determine that remedial plugging operations may be required.

(c) The following note shall appear on all final maps and grading plans: "If during grading or construction, any plugged and abandoned or unrecorded wells are uncovered or damaged, CalGEM will be contacted to inspect and approve any remediation required.

Page ES-36, Table ES-1: Executive Summary Matrix, Section 3.13—Public Services

The following text has been added:

Impact PUB-3: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.

No mitigation measures are required.

Less than significant impact.

Page ES-34, Table ES-1: Executive Summary Matrix, Section 3.12—Noise

The following text has been revised:

MM NOI-1 (a) Prior to the issuance of a building permit for a drive-through car wash, an in-depth acoustical study prepared by a qualified acoustic professional shall be submitted for review and approval to the City of Visalia Community ~~Development~~ Preservation Department that demonstrates that the design and operations of a proposed drive-through car wash would not result in exceedances of the Visalia Municipal Code's applicable daytime and nighttime noise limits for residential land uses. The study shall evaluate factors such as:

- The location and orientation of noise-generating equipment, such as dryer blowers and vacuums.
- The location and orientation of the drive-through car wash tunnel.
- The hours of operation.
- The location of the drive-through car wash on the project site.

(b) Based on the results of the acoustical study, the project applicant shall be required to incorporate, at a minimum, design features or reduction measures to reduce any identified operational noise impact to meet applicable noise performance criteria. These reduction measures shall be included on all relevant plans, specifications, and other permitting documents. Measures and design features may include, but are not limited to, the following:

- Locating the car wash facility further away from sensitive receptors, therefore reducing its noise impacts at nearby residential land uses.
- Orienting the facility so that the carwash exit (where the drying blowers would be located) is located facing away from nearby residential land uses.
- Providing sound blankets to hang around the edge of the carwash exit tunnel to help shield the dryer blower noise.
- Locating the dryer blowers further inside the car wash tunnel to help shield the dryer blower noise.
- Providing screening, such as a structure or sound wall, to shield the carwash exit where the dryer blowers would be located from nearby residential land uses.

Page ES-37, Table ES-1: Executive Summary Matrix, Section 3.14—Transportation and Traffic

The following text has been revised:

MM TRANS-2 Prior to the issuance of building permits, the developer shall appropriate Storm Drainage and Waterways impact fees.

MM TRANS-3 Plaza Drive and Riggin Avenue: ~~Prior to the issuance of grading permits~~ Prior to occupancy of Phae 2, the proposed project shall provide site plans that show modification of the raised median to extend the existing westbound left-turn pocket by 100 feet, to provide a 400-foot left-turn pocket. The existing northbound right-turn stripe shall be extended to 300 feet. ~~These improvements shall occur in the year 2026.~~ These improvements shall occur when construction of the proposed project's Phase 2 846,920 square feet is complete, as shown in the table included in this MM TRANS-3. The project proponent shall be financially responsible for these improvements. "Financially responsible" shall equate to implementing the project as well as paying for the project.

Project Phase	Total Constructed Square Feet per Phase	Phase Detail
Phase 1	1,864,680	Light Industrial (Buildings 1 and 2)
Phase 2	846,920	Light Industrial (Buildings 3, 4, and 7) Gas Station/Convenience Market (with 12 Vehicle Fueling Stations) Fast-food Restaurant (with Drive-through) Car Wash
Phase 3	230,800	Light Industrial (Buildings 5, 6, and 8) Flex Industrial Mini-Storage (with RV parking)

MM TRANS-4 Shirk Street and Riggin Avenue: Prior to occupancy of Phase 1, the proposed project shall provide dual northbound left-turn pockets (300-foot minimum) and a 300-foot minimum southbound left-turn pocket. Since a 300-foot eastbound right-turn pocket would already be installed by the Capital Improvement Plan (CIP) project, additional recommendations are not proposed. ~~These improvements shall occur in the year 2025.~~ These improvements shall occur when construction of the proposed project's Phase 1 1,864,680 square feet is complete, as shown in the table included in this MM TRANS-4. The project's contribution into the Transportation Impact Fees (TIF) will assist in paying for these improvements.

Project Phase	Total Constructed Square Feet per Phase	Phase Detail
Phase 1	1,864,680	Light Industrial (Buildings 1 and 2)
Phase 2	846,920	Light Industrial (Buildings 3, 4, and 7) Gas Station/Convenience Market (with 12 Vehicle Fueling Stations) Fast-food Restaurant (with Drive-through) Car Wash
Phase 3	230,800	Light Industrial (Buildings 5, 6, and 8) Flex Industrial Mini-Storage (with RV parking)

Page ES-39, Table ES-1: Executive Summary Matrix, Section 3.14—Transportation and Traffic

The following text has been revised:

MM TRANS-10b Prior to final occupancy of any portion of Phase 1, the developer shall construct a bike path along Modoc Ditch, between Kelsey Street and Shirk Street (approximately 1 mile).

The existing Class I bike path along Modoc ditch runs to the east of the proposed project, between Dinuba Boulevard and the St. John's River Trail. The Carlton Acres Specific Plan (CASP) project also proposed to construct a portion of the Class I path within the site. Therefore, the bike path shall connect to a new path proposed within the CASP site and future segments to the east and west. This mitigation is subject to contractability and approval by the Modoc Ditch Company~~Cal Water~~.

Chapter 2, Project Description

Page 2-11, Section 2.6, Required Actions and Approvals

The following text has been updated:

The proposed project would require the certification of the EIR and the following discretionary approvals from the City:

- Approval of a Development Agreement
- Approval of Resolution Initiating Annexation Proceedings
- Approval of the Site Plan
- Approval of Tentative Parcel Map
- Conditional Use Permit for the conditionally permitted uses proposed (convenience store, drive-through restaurants), some of the proposed lot sizes in the light industrial zoning, and lots without public street frontage.

In addition to the above required actions and approval, the applicant has elected to pursue a General Plan Amendment for minor adjustment of the Industrial and Light Industrial land use designation to conform with proposed parcel lines.

Section 3.2, Agricultural Resources and Forestry Resources

Page 3.2-11—12, Impact AG-1, Third and Fourth Paragraphs

The following text has been updated:

> General Plan policies identified in Impact 3.5-1 of the General Plan EIR assist in reducing the severity of impacts related to the loss of Prime Farmland while still supporting the General Plan's goals of accommodating a certain amount of growth within the Planning Area. In particular, LU-P-34 requires the City to create and adopt a mitigation program to address the conversion of Prime Farmland and Farmland of Statewide Importance in Tiers II and III of the UDB. This mitigation program for Tiers II and III requires a 1:1 ratio of agricultural land preserved to agricultural land converted and also requires agricultural land to be preserved equivalent to agricultural land converted. As noted above, the City adopted the APO [Agriculture Preservation Ordinance] on May 15, 2023, ~~is in the process of adopting an Agricultural Preservation Ordinance~~ pursuant to Policy LU-P34~~ but has not done so as of the writing of this Draft EIR~~. Moreover, as noted above, Policy LU-P-34 explicitly exempts conversions of agricultural lands located in UDB Tier I, such as the project site, from the mitigation program. Therefore, the APO ~~mitigation program~~ required in LU-P-34 is not applicable to the proposed project. Although implementation of policies in the General Plan would reduce some agricultural impacts for General Plan buildout, over 14,000 acres of the existing Important Farmland would be lost. Therefore, the General Plan EIR determined that conversion of farmland from General Plan buildout would be significant and unavoidable.
>
> Although previously addressed in the certified General Plan EIR, for purposes of a comprehensive and conservative analysis, this Draft EIR acknowledges that the proposed project would result in the loss of Prime Farmland as a result of the construction of the proposed urban uses. Furthermore, despite the fact this conversion was already evaluated and disclosed as part of the General Plan EIR, this Draft EIR conservatively concludes that the proposed project would result in significant and unavoidable impacts related to the conversion of Farmland. Because, however, Policy LU-P-34 does not apply to Tier 1 lands~~ and further because there is no adopted Agricultural Preservation Ordinance~~ or the APO exempt Tier I lands, there is no feasible method to mitigate the loss of this Important Farmland.

However, as noted above, the project site has long been identified for conversion to urban uses. This reflects the City's overall land use strategy that ensure the areas identified for growth are contiguous to existing development and to each other, and policies clearly require sequencing of growth so that minimal fragmentation of agricultural land will occur. The General Plan's three-tier growth management system reinforces Visalia's compact form, minimizing the interface between farming and urban uses. The General Plan establishes greenbelt buffers along the urban edge in some places, while providing requirements for buffering and screening of private development elsewhere. Furthermore, the City's urbanized land use vision for the project site vicinity is evident in that the adjacent surrounding uses consist of industrial uses such as an Amazon distribution center and United Parcel Service (UPS) distribution hub. However, as discussed above, impacts would be significant and unavoidable.

Page 3.2-16, Second Paragraph

The following text has been updated:

All cumulative development would be required to comply with the applicable provisions of the General Plan, implement application mitigation required by the General Plan EIR, and adhere to other applicable laws and regulations addressing loss of agricultural resources (i.e., Agricultural Preservation Ordinance<u>, which was adopted on May 15, 2023,</u> ~~when adopted~~ and Right to Farm provisions when adopted). However, even with adherence to the foregoing and General Plan's overall land use vision and strategy, development of the Cumulative Projects would result in a cumulatively significant and unavoidable impact.

Section 3.3 Air Quality

Page 3.3-25, San Joaquin Valley Air Pollution Control District Rules and Regulations

The following text has been updated:

The Valley Air District rules and regulations that are relevant to this analysis consist of the following:

<u>**Rule 2010—Permits Required**. This rule requires operators of emission sources to obtain an Authority to Construct and Permit to Operate from the District.</u>

<u>**Rule 2201—New and Modified Stationary Source Review**. This rule requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology, such as requiring a backup generator to meet Tier 4 emission standards.</u>

<u>**Rule 2520—Federally Mandated Operating Permits**. The purpose of this rule is to issue operating permits for new and modified sources of air contaminants pursuant to the requirements of 40 Code of Federal Regulations, Part 70.</u>

<u>**Rule 4002—National Emissions Standards for Hazardous Air Pollutants**. The purpose of this rule is to protect the public from uncontrolled emissions of asbestos by requiring a thorough inspection for asbestos before any demolition or renovation activities occur.</u>

Page 3.3-26, San Joaquin Valley Air Pollution Control District Rules and Regulations

The following text has been updated:

> **Rule 9410—Employer Based Trip Reduction.** This rule applies to projects that result in the employment of 100 or more "eligible" employees and requires the employer to establish an Employer Trip Reduction Implementation Plan that encourages employees to reduce single-occupancy vehicle trips.

Pages 3.3-45–3.3-47, Table 3.3-13: Construction Air Pollutant Emissions (Unmitigated)

The following table notes have been revised:

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
ROG = reactive organic gases
SO_X = sulfur oxides
[1] PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
[2] The maximum annual emissions would occur during the 2024 year.
~~[3] This scenario accounts for the overlapping of Phases 1, 2, and 3 (i.e., concurrent phasing).~~
Source of Emissions: CalEEMod Output of Appendix B.
Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed June 1, 2023.

Pages 3.3-48–3.3-49, Table 3.3-14: Construction Air Pollutant Emissions (Mitigated)

The following table notes have been revised:

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
ROG = reactive organic gases
SO_X = sulfur oxides
[1] PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
[2] The maximum annual emissions would occur during the 2024 year.
~~[3] This scenario accounts for the overlapping of Phases 1, 2, and 3 (i.e., concurrent phasing).~~
Source of Emissions: CalEEMod Output of Appendix B.
Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed June 1, 2023.

Pages 3.3-67–3.3-68, Table 3.3-21: Estimated Health Risks and Hazards During Project Operation (Unmitigated) at the MIR

The following table has been revised:

Source	Cancer Risk (risk per million)	Chronic Non-Cancer HI	Acute Non-Cancer HI[1]
Gasoline Fueling Activities	~~0.1~~0.14	<0.0001	0.06
Operational DPM (On-site)	~~0.69~~0.97	0.0002	–
Operational DPM (Off-site Trucks)	~~2.56~~3.61	0.0007	–
Total Risk from Project Operations	~~3.35~~4.73	0.001	0.06
Significance Threshold	**20**	**1**	**1**
Exceeds Individual Source Threshold?	**No**	**No**	**No**

Notes:
DPM = diesel particulate matter
HI = hazard index
MIR = Maximally Impacted Sensitive Receptor
Source: Health Risk Assessment of Appendix B.

Page 3.3-68, Table 3.3-22: Cumulative Health Risks and Hazards During Reasonable Construction (Mitigated) and Operation (Unmitigated) at the MIR

The following table has been revised:

Source	Cancer Risk (risk per million)	Chronic Non-Cancer HI	Acute Non-Cancer HI[1]
Reasonable Construction + Operation	~~5.30~~6.68	0.002	0.06
Significance Threshold	**20**	**1**	**1**
Exceeds Cumulative Threshold?	**No**	**No**	**No**

Notes:
DPM = diesel particulate matter
HI = hazard index
MIR = Maximally Impacted Sensitive Receptor
Source: Health Risk Assessment of Appendix B.

Section 3.4 Biological Resources

Page 3.4-24, MM BIO-1d

The following mitigation measure has been updated:

MM BIO-1d Not more than 14 days before start of ground disturbance, a qualified Biologist shall conduct surveys to determine the presence/absence of the following special-status wildlife species: Crotch's bumblebee, San Joaquin kit fox, western burrowing owl, and American badger. <u>Surveys conducted for Crotch's bumblebee shall follow the survey methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023) protocol. In the event a Crotch's bumblebee nest is detected within the project, CDFW shall be consulted to the extent required under applicable laws and regulations to determine how best to implement project activities and avoid take. If take cannot be avoided, to the extent</u>

required under applicable laws and regulations, an Incidental Take Permit (ITP) will be obtained, pursuant to Fish and Game Code Section 2081 subdivision (b).

Should ~~any of the foregoing special-status wildlife species~~ San Joaquin kit fox, western burrowing owl, or American badger be detected, the qualified Biologist shall coordinate with the California Department of Fish and Wildlife (CDFW) and/or the United States Fish and Wildlife Service (USFWS) (as appropriate and to the extent required under applicable laws and regulations) to determine adequate protection measures as may be required under applicable laws and regulations, and the relevant project developer shall implement all such measures in connection with the development proposal at issue. Copies of all reports and communication with the appropriate wildlife agencies shall be submitted to the lead agency as evidence of compliance.

Page 3.4-30, MM BIO-3

The following mitigation measure has been updated:

MM BIO-3 The project developer shall submit the preliminary Jurisdictional Delineation (JD) and coordinate with the appropriate regulating agencies (Central Valley Regional Water Quality Control Board [RWQCB], California Department of Fish and Wildlife [CDFW] and the United States Army Corps of Engineers [USACE]) to the extent required under applicable laws and regulations to determine whether the Modoc Ditch is protected under Section 404 and 401 of the Clean Water Act (CWA), Porter-Cologne Water Quality Control Act, and/or Fish and Game Code 1602. Additionally, to the extent required under applicable laws and regulations, the project applicant shall submit a notification pursuant to Fish and Game Code Section 1602 to assist with review of the submitted delineation materials.

Section 3.6, Energy

Page 3.6-9, Impact ENER-1

The following text has been updated:

Operation of the proposed project would consume an estimated 34,152,062 kWh of electricity and an estimated 49,385,262 kBTU of natural gas on an annual basis. The proposed project's buildings and related improvements and infrastructure would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the State's Building Energy Efficiency Standards. As specified in Chapter 5, Part 11 of the Title 24 standards, the proposed project would be required to incorporate electrical conduit to facilitate future installation of electric vehicle (EV) charging infrastructure. In addition, as specified in Subchapter 6, Part 6 of the Title 24 standards, the proposed project would be required to ~~either~~ include ~~rooftop solar systems or design the proposed buildings to structurally accommodate future installation of a rooftop solar system.~~ a photovoltaic system to be installed in accordance with the Energy Code Section 140.10. As such, the design of the proposed project would facilitate the future commitment to renewable energy resources. Therefore, building energy consumption would not be considered wasteful, inefficient, or unnecessary.

Page 3.6-12, Impact ENER-2

The following text has been updated:

While several of these policies are voluntary or cannot be implemented by an individual development project, these policies would contribute toward less water demand, energy-efficient operational uses, and reduce the unnecessary use of fuel. For example, the proposed project would be consistent with Climate Action Plan (CAP) actions related to Energy by including Mitigation Measure (MM) GHG-2a, which would require ~~rooftop solar panel systems, solar-ready rooftop design, as feasible, or roofing material contains light coloring with a solar reflective index greater than 78~~ a photovoltaic (PV) system to be installed in accordance with the Energy Code Section 140.10.

Section 3.8, Greenhouse Gas Emissions

Page 3.8-36, Table 3.8-5: Consistency with the City of Visalia's CAP

The following table has been revised:

Solar PV installations. This action emphasizes the benefit for community members to install solar photovoltaic systems.	**Consistent.** As currently designed, the proposed project would not include solar photovoltaic panels on building rooftops. ~~In addition, the Notice of Preparation (NOP) comment letter sent from the Valley Air District recommends that the proposed project include rooftop solar, or solar-ready rooftops, or light colored roofing material.~~ MM GHG-2a would require ~~that the proposed project includes one of the following measures: rooftop solar panels, solar-ready rooftop design, as feasible, or roofing material contains light coloring with a solar reflective index greater than 78.~~a photovoltaic (PV) system to be installed in accordance with the Energy Code Section 140.10. Therefore, with implementation of MM GHG-2a, the proposed project would be consistent with this action.

Page 3.8-42

The following text has been updated:

As currently designed, the proposed project would not include solar panels or solar-ready rooftop infrastructure, resulting in a potentially significant impact due to inconsistency with the CAP. However, implementation of MM GHG-2a would require ~~the proposed project to include rooftop solar panels, solar-ready rooftop design, as feasible, or roofing material contains light coloring with a solar reflective index greater than 78 upon~~ a photovoltaic (PV) system to be installed in accordance with the Energy Code Section 140.10 prior to the issuance of a building permit.

Page 3.8-49, Table 3.8-7: Consistency with 2022 Scoping Plan Update

The following table has been revised:

Decarbonize buildings. All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed Statewide by 2030.	**Consistent.** The proposed project is consistent with the AB197 commercial timeline. In addition, the proposed project would be required to comply with CALGreen measures for 2022 as part of MM GHG-2a, which require ~~rooftop~~ PV solar panels with battery storage ~~for warehouses and heat pumps (in all climate zones) for office space in warehouses~~ consistent with decarbonization strategies.

Page 3.8-49, Table 3.8-7: Consistency with 2022 Scoping Plan Update

The following text has been updated:

> Although not quantified in this analysis, the MM GHG-2a ~~would be required to ensure the implementation of one of the following as feasible: rooftop photovoltaic solar system, solar-ready rooftop design, or roofing material contains light coloring with a solar reflective index greater than 78.~~would require a PV system to be installed in accordance with the Energy Code.

Page 3.8-50, Mitigation Measures

The following mitigation measure has been updated:

MM GHG-2a **~~Rooftop Solar~~ Solar Photovoltaic System**

~~Prior to issuance of the first building permit in connection with an individual specific development proposal, the relevant project applicant shall provide the City of Visalia Planning Department reasonable documentation demonstrating that each of the buildings that are covered by the subject individual specific development proposal would be designed with one of the following: (i) rooftop photovoltaic solar panels, (ii) solar-ready rooftop design that shall support the installation of rooftop photovoltaic panel, as feasible, or (iii) roofing material contains light coloring with a solar reflective index greater than 78.~~

Prior to issuance of the first building permit in connection with an individual specific development proposal, the Planning Department shall confirm that the subject proposal has been designed to include the following: a solar photovoltaic (PV) system in accordance with 2022 Building Energy Efficiency Standards (Energy Code) Section 140.10. The required solar PV system shall be sized based on calculations provided in Section 140.10(a) of the Energy Code, which includes a number of factors such as the amount of conditioned space. Unconditioned buildings, except unoccupied or unused first-time tenant improvement spaces, do not need to be part of the solar sizing calculations. All buildings required to have a solar PV system must also have a battery storage system.

Section 3.9, Hazards and Hazardous Materials

Page 3.9-27, Mitigation Measures

The following mitigation measure has been revised.

MM HAZ-1 (a) Any known wells on the project site shall be delineated on an engineered site plan with a minimum 10-foot radius no build area.

(b) In the event that any abandoned or unrecorded wells are uncovered or damaged during excavation or grading activities, all work shall cease in the vicinity of the well, and the California Department of Conservation Geologic Energy Management (CalGEM), shall be contacted for requirements and approval; copies of said approvals shall be submitted to the City of Visalia Planning and Community ~~Development Planning~~ Preservation Department. CalGEM may determine that remedial plugging operations may be required.

(c) The following note shall appear on all final maps and grading plans: "If during grading or construction, any plugged and abandoned or unrecorded wells are uncovered or damaged, CalGEM will be contacted to inspect and approve any remediation required.

Section 3.10, Hydrology and Water Quality

Page 3.10-22, "Construction", Second Paragraph

The following text has been revised:

> The majority of the project site is located in Zone X, which is an area with an 0.2 percent annual chance of flood hazard. The southeast corner of the project site is located in Zone X outside of the 0.2 ~~with a 1~~ percent annual chance of flood hazard. Therefore, the project site is not located within a ~~flood hazard zone~~ Special Flood Hazard Area.

Section 3.11, Land Use and Planning

Page 3.11-24, Table 3.11-2: General Plan Consistency Analysis

The following table has been revised:

Air Quality and Greenhouse Gases	**Objective AQ-O-3**	Reduce emissions of greenhouse gases that contribute to global climate change in accord with federal and State law.	**Consistent:** As demonstrated in Section 3.8, Greenhouse Gas Emissions, the proposed project would be consistent with applicable State climate laws and regulations, which are more stringent than federal laws. Specifically, in addition to various project design features and compliance with the robust regulatory framework detailed in this Draft EIR, the proposed project would be required to

			implement MM AIR-2d and MM GHG-2a which would contribute to increase of renewable energy use and decrease of fossil fuel consumption, which are the central themes of the State's 2017 and 2022 scoping plans.

Section 3.12, Noise

MM NOI-1: (a) Prior to the issuance of a building permit for a drive-through car wash, an in-depth acoustical study prepared by a qualified acoustic professional shall be submitted for review and approval to the City of Visalia Planning and Community ~~Development~~ Preservation Department that demonstrates that the design and operations of a proposed drive-through car wash would not result in exceedances of the Visalia Municipal Code's applicable daytime and nighttime noise limits for residential land uses. The study shall evaluate factors such as:

- The location and orientation of noise-generating equipment, such as dryer blowers and vacuums.
- The location and orientation of the drive-through car wash tunnel.
- The hours of operation.
- The location of the drive-through car wash on the project site.

(b) Based on the results of the acoustical study, the project applicant shall be required to incorporate, at a minimum, design features or reduction measures to reduce any identified operational noise impact to meet applicable noise performance criteria. These reduction measures shall be included on all relevant plans, specifications, and other permitting documents. Measures and design features may include, but are not limited to, the following:

- Locating the car wash facility further away from sensitive receptors, therefore reducing its noise impacts at nearby residential land uses.
- Orienting the facility so that the carwash exit (where the drying blowers would be located) is located facing away from nearby residential land uses.
- Providing sound blankets to hang around the edge of the carwash exit tunnel to help shield the dryer blower noise.
- Locating the dryer blowers further inside the car wash tunnel to help shield the dryer blower noise.
- Providing screening, such as a structure or sound wall, to shield the carwash exit where the dryer blowers would be located from nearby residential land uses.

Page 3.12-32, Section 3.12.7 Cumulative Impacts, Construction Noise

The following text has been corrected (note that this edit does not affect the cumulative impacts conclusion for Section 3.12 Noise):

> As noted above, the geographic scope of the cumulative noise analysis would be approximately 1,000 feet surrounding the project site. Cumulative development would be required to comply with all applicable construction hour restrictions and would also be anticipated to incorporate appropriate BMPs to help reduce construction noise. In addition, applicable design review regulations directing the siting, design, and insulation of new development and redevelopment and all applicable noise policies, standards and requirements in the General Plan and Municipal Code would ensure that noise impacts are less than significant. Because there is not a cumulative significant construction noise impact to existing or planned land uses in the project vicinity, the incremental contribution of project construction noise would not be cumulatively considerable. Therefore, the proposed project would result in a less than significant cumulative impact related to construction noise. This ~~cumulatively significant and unavoidable~~ impact <u>conclusion</u> is consistent with the General Plan EIR, which analyzed full buildout of this area and its impact upon nearby noise sensitive land uses.

Section 3.14, Transportation

Page 3.14-22, Impact TRANS-1 Impact Analysis

The following typo has been corrected:

> Construction of the proposed project would not adversely affect or otherwise conflict with the existing LOS conditions. According to the LOS operational analysis, the proposed project would result in queueing deficiencies at several intersections and would require implementation of the improvements recommended in the TIA. These recommendations are incorporated as the following mitigation measures to reduce project impacts related to LOS. With implementation of MM TRANS-1 through ~~MM TRANS-8~~ <u>MM TRANS-9</u>, impacts would be less than significant.

Page 3.14-23, Mitigation Measures

The following mitigation measures have been updated:

MM TRANS-2 Prior to the <u>issuance of </u>building permits, the developer shall appropriate Storm Drainage and Waterways impact fees.

MM TRANS-3 Plaza Drive and Riggin Avenue: P~~rior to the issuance of grading permits~~ <u>Prior to occupancy of Phase 2,</u> the proposed project shall provide site plans that show modification of the raised median to extend the existing westbound left-turn pocket by 100 feet, to provide a 400-foot left-turn pocket. The existing northbound right-turn stripe shall be extended to 300 feet. ~~These improvements shall occur in the year 2026.~~ <u>These improvements shall occur when construction of the proposed project's Phase 2, 846,920 square feet is complete, as shown in the table included in this MM TRANS-3.</u> The project proponent shall be financially responsible for these improvements. "Financially responsible" shall equate to implementing the project as well as paying for the project.

Project Phase	Total Constructed Square Feet per Phase	Phase Detail
Phase 1	1,864,680	Light Industrial (Buildings 1 and 2)
Phase 2	846,920	Light Industrial (Buildings 3, 4, and 7) Gas Station/Convenience Market (with 12 Vehicle Fueling Stations) Fast-food Restaurant (with Drive-through) Car Wash
Phase 3	230,800	Light Industrial (Buildings 5, 6, and 8) Flex Industrial Mini-Storage (with RV parking)

MM TRANS-4 Shirk Street and Riggin Avenue: <u>Prior to occupancy of Phase 1, the</u> proposed project shall provide dual northbound left-turn pockets (300-foot minimum) and a 300-foot minimum southbound left-turn pocket. Since a 300-foot eastbound right-turn pocket would already be installed by the Capital Improvement Plan (CIP) project, additional recommendations are not proposed. ~~These improvements shall occur in the year 2025.~~ <u>These improvements shall occur when construction of the proposed project's Phase 1 1,864,680 square feet is complete, as shown in the table included in this MM TRANS-4.</u> The project's contribution to the Transportation Impact Fees (TIF) will assist in paying for these improvements.

Project Phase	Total Constructed Square Feet per Phase	Phase Detail
Phase 1	1,864,680	Light Industrial (Buildings 1 and 2)
Phase 2	846,920	Light Industrial (Buildings 3, 4, and 7) Gas Station/Convenience Market (with 12 Vehicle Fueling Stations) Fast-food Restaurant (with Drive-through) Car Wash
Phase 3	230,800	Light Industrial (Buildings 5, 6, and 8) Flex Industrial Mini-Storage (with RV parking)

Page 3.14-25, Impact TRANS-2 Impact Analysis

This section has been revised to include the calculations regarding Vehicle Miles Traveled (VMT) reductions resulting from the implementation of MM TRANS-10a and MM TRANS-10b.

> MM TRANS-10a and MM TRANS-10b would be implemented in order to reduce VMT impact. Combining these two mitigation measures would reduce the proposed project's VMT per employee by ~~1.75~~ <u>1.61</u> percent, exceeding the proposed project's 1.54 percent impact.

Therefore, the proposed project's VMT impact would be mitigated. The quantified calculation of the percent reduction resulting from these mitigation measures are included in Table 3.14-5 and Table 3.14-6, below.

Table 3.14-5: VMT Reduction from MM TRANS-10a: End-of-Trip Bicycle Facilities

ID	Variable (Constants, Assumptions, and Available Defaults)	Value	Unit
B	Bike mode adjustment factor	4.86	Unitless
C	Existing bicycle trip length for all trips in region	2.3	Miles
D	Existing vehicle trip length for all trips in region	10.3	Miles
E	Existing bicycle mode share for work trips in region	1.60	%
F	Existing vehicle mode share for work trips in region	90.1	%
		VMT Reduction	-1.53%

Notes:

$$\text{Formula} = \frac{C \times (E - (B \times E))}{D \times F}$$

Sources:
Buehler, R. 2012. Determinants of bicycle commuting in the Washington, DC region: The role bicycle parking, cyclist showers, and free car parking at work. Transportation Research Part D, 17, 525–531. Website: http://www.pedbikeinfo.org/cms/downloads/DeterminantsofBicycleCommuting.pdf

Federal Highway Administration (FHWA). 2017a. National Household Travel Survey–2017 Table Designer. Travel Day PT by TRPTRANS by HH_CBSA. Website: https://nhts.ornl.gov/.

Federal Highway Administration (FHWA). 2017b. National Household Travel Survey–2017 Table Designer. Workers by WRKTRANS by HH_CBSA. Website: https://nhts.ornl.gov/.

All descriptions and methods from California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Default parameters for the calculations were derived using the average of Southern and Northern California regions provided in the handbook.

Table 3.14-6: VMT Reduction from MM TRANS-10b: Expand Bicycle Network

ID	Variable	Value	Unit
User Inputs			
B	Existing bikeway miles in plan/community	1.0	Miles
C	Bikeway miles in plan/community with measure	3.0	Miles
Constants, Assumptions, and Available Defaults			
D	Bicycle mode share in plan/community	0.6	%
E	Vehicle mode share in plan/community	95.0	%
F	Average one-way bicycle trip length in plan/community	2.9	Miles
G	Average one-way vehicle trip length in plan/community	10.9	Miles
H	Elasticity of bike commuters with respect to bikeway miles per 10,000 population	0.25	Unitless

ID	Variable	Value	Unit
User Inputs			
		VMT Reduction	-0.08%

Notes:

$$\text{Formula} = -1 \times \frac{\left(\frac{C-B}{B}\right) \times D \times F \times H}{E \times G}$$

Sources:
California Air Resources Board (ARB), California Department of Public Health (CDPH), and Nicholas Linesch Legacy Fund. 2020. Integrated Transport and Health Impact Model. Website: https://skylab.cdph.ca.gov/HealthyMobilityOptionTool-ITHIM/#Home.

Federal Highway Administration (FHWA). 2017. National Household Travel Survey – 2017 Table Designer. Travel Day PMT by TRPTRANS by HH_CBSA. Website: https://nhts.ornl.gov/.

Pucher, J., and Buehler, R. 2011. Analysis of Bicycling Trends and Policies in Large North American Cities: Lessons for New York. March. Website: http://www.utrc2.org/sites/default/files/pubs/analysis-bike-final_0.pdf.

All descriptions and methods from California Air Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity.*

Page 3.14-26, Mitigation Measures

The following mitigation measure has been updated:

MM TRANS-10b Prior to final occupancy of any portion of Phase 1, the developer shall construct a bike path along Modoc Ditch, between Kelsey Street and Shirk Street (approximately 1-mile).

The existing Class I bike path along Modoc ditch runs to the east of the proposed project, between Dinuba Boulevard and the St. John's River Trail. The Carlton Acres Specific Plan (CASP) project also proposed to construct a portion of the Class I path within the site. Therefore, the bike path shall connect to a new path proposed within the CASP site and future segments to the east and west. This mitigation is subject to contractability and approval by the Modoc Ditch Company~~Cal Water~~.

Page 3.14-27, First paragraph

The following typo has been corrected:

During construction, the proposed project would require the delivery of heavy construction equipment using area roadways, some of which may require transport by oversize vehicles. Heavy equipment associated with these components would not be hauled to/from the site daily, but rather would be hauled in and out on an as needed basis. Nevertheless, the use of oversize vehicles during construction could create a hazard to the public by limiting motorist views on roadways and by the obstruction of space, which is considered a potentially significant impact. In addition, the project construction activities may result in some temporary lane closures in the area. The proposed project would be required under existing regulations to obtain California Highway Patrol escorts, as well as coordinate the timing of

> transport, in oversize load permits from Caltrans and ~~Kings County~~ Tulare County, as appropriate. Therefore, a reasonable worst-case concurrent construction of all phases would not worsen the LOS or impact traffic movement or create roadway hazards to a greater extent than the project as analyzed in the TIA.

Page 3.14-27, Operation

This paragraph has been revised because the sight distance assessment was removed from the study per the City's direction.

> ~~A sight distance analysis for each project driveway was conducted to determine whether outbound vehicles would have adequate sight distance to observe conflicting traffic along the intersecting public roadways. Intersection sight distance for the project driveways were evaluated following methodology outlined by the City of Visalia Design and Improvement Standard SD-3, which is based on guidance outlined by the American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highway and Street, 7th Edition.~~ The proposed project would be required to satisfy the required sight lines and clear zone requirements for all project driveways, to ensure roadway hazards are minimized.

Appendix B: Air Quality, Greenhouse Gas, and Energy Supporting Information

Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report (EIR Appendix B), Page 8

The following mitigation measure has been updated:

MM GHG-2a **~~Rooftop Solar~~ Solar Photovoltaic System**

> ~~Prior to issuance of the first building permit in connection with an individual specific development proposal, the relevant project applicant shall provide the City of Visalia Planning Department reasonable documentation demonstrating that each of the buildings that are covered by the subject individual specific development proposal would be designed with one of the following: (i) rooftop photovoltaic solar panels, (ii) solar-ready rooftop design that shall support the installation of rooftop photovoltaic panel, as feasible, or (iii) roofing material contains light coloring with a solar reflective index greater than 78.~~

> Prior to issuance of the first building permit in connection with an individual specific development proposal, the Planning Department shall confirm that the proposed project is designed to include the following: The building shall be designed to include a solar photovoltaic (PV) system in accordance with 2022 Building Energy Efficiency Standards (Energy Code) Section 140.10. The required solar PV system shall be sized based on calculations provided in Section 140.10(a) of the Energy Code, which includes a number of factors such as the amount of conditioned space. Unconditioned buildings, except unoccupied or unused first-time tenant improvement spaces do not need to be part of the solar sizing calculations. All buildings required to have a solar PV system must also have a battery storage system.

Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report (EIR Appendix B), Page 93

The following table has been revised:

Table 1: Worst-case Scenario Construction Air Pollutant Emissions (Mitigated)

Year	Emissions (tons per year)[1]					
	ROG	NO_x	CO	SO_X	PM_{10} (~~Exhaust~~Total)	$PM_{2.5}$ (~~Exhaust~~Total)
Off-site Improvement 2024	0.15	0.01	0.21	<0.01	~~<0.01~~0.01	<0.01
Overall Site Preparation 2024-2026	0.26	2.01	10.27	~~0.01~~0.02	~~0.031~~2.67	~~0.031~~0.96
Phase 1 2024-2025	3.65	9.85	39.10	0.09	~~0.180~~3.55	~~0.177~~1.09
Phase 2 2024-2025	~~7.24~~7.79	~~4.60~~10.84	~~15.38~~14.46	~~0.03~~0.04	~~0.072~~2.11	~~0.071~~0.82
Phase 3 2024-2025	~~7.81~~8.58	~~6.021~~14.77	~~21.02~~19.73	~~0.04~~0.05	~~0.098~~82.75	~~0.096~~1.09
Maximum Annual Construction Emissions[2]	**~~17.79~~18.88**	**~~16.81~~29.19**	**~~64.29~~64.49**	**0.15**	**~~0.284~~8.00**	**~~0.280~~2.93**
Significance threshold	**10**	**10**	**100**	**27**	**15**	**15**
Exceed threshold—significant impact?	**Yes**	**Yes**	No	No	No	No
Entire Construction Duration with Overlapping of Phases 1, 2, and 3 Under the Worst-case Scenario (2024-~~2026~~2025)						
Worst-case Scenario Total Construction Emissions[3]	**~~19.12~~20.43**	**~~22.49~~37.48**	**~~85.97~~83.77**	**~~0.17~~0.20**	**~~0.381~~11.09**	**~~0.376~~3.96**

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
ROG = reactive organic gases
SO_X = sulfur oxides
[1] PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
[2] The maximum annual emissions would occur during the 2024 year.
[3] This scenario accounts for the overlapping of Phases 1, 2, and 3 (i.e., concurrent phasing).
Source of Emissions: CalEEMod Output (Appendix A).
Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed September 13, 2022.

Appendix B: Air Quality, Greenhouse Gas, and Energy Supporting Information

Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report (EIR Appendix B), Pages 110-111, Table 25: Estimated Health Risks and Hazards During Project Operation (Unmitigated) at the MIR

The following table has been revised:

Source	Cancer Risk (risk per million)	Chronic Non-Cancer HI	Acute Non-Cancer HI[1]
Gasoline Fueling Activities	~~0.10~~0.14	<0.0001	0.06
Operational DPM (On-Site)	~~0.69~~0.97	0.0002	–
Operational DPM (Off-Site Trucks)	~~2.56~~3.61	0.0007	–
Total Risk from Project Operations	~~3.35~~4.73	0.001	0.06
Significance Threshold	**20**	**1**	**1**
Exceeds Individual Source Threshold?	**No**	**No**	**No**
Notes: DPM = diesel particulate matter HI = hazard index MIR = Maximally Impacted Sensitive Receptor Source: Health Risk Assessment of Appendix B.			

Appendix B: Air Quality, Greenhouse Gas, and Energy Supporting Information

Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report (EIR Appendix B), Page 111, Table 26: Cumulative Health Risks and Hazards During Reasonable Construction (Mitigated) and Operation (Unmitigated) at the MIR

The following table has been revised:

Source	Cancer Risk (risk per million)	Chronic Non-Cancer HI	Acute Non-Cancer HI[1]
Reasonable Construction + Operation	~~5.30~~6.68	0.002	0.06
Significance Threshold	**20**	**1**	**1**
Exceeds Cumulative Threshold?	**No**	**No**	**No**
Notes: DPM = diesel particulate matter HI = hazard index MIR = Maximally Impacted Sensitive Receptor Source: Health Risk Assessment (Appendix B).			

Draft EIR Appendix B: Air Quality, Greenhouse Gas, and Energy Supporting Information

Page 111, Table 27: Cumulative Health Risks and Hazards During Worst-Case/Concurrent Construction (Mitigated) and Operation (Unmitigated) at the MIR

The following table has been revised.

Source	Cancer Risk (risk per million)	Chronic Non-Cancer HI	Acute Non-Cancer HI[1]
Worst-case Construction + Operation	~~6.04~~10.77	0.0025	0.06
Significance Threshold	**20**	**1**	**1**
Exceeds Cumulative Threshold?	**No**	**No**	**No**
Notes: DPM = diesel particulate matter HI = hazard index MIR = Maximally Impacted Sensitive Receptor Source: Health Risk Assessment (Appendix B).			

Page 146

The following text has been updated:

> While several of these policies are voluntary or cannot be implemented by an individual development project, these policies would contribute toward less water demand, energy-efficient operational uses, and reduce the unnecessary use of fuel. For example, the proposed project would be consistent with CAP actions related to Energy by including Mitigation Measure (MM) GHG-2a, which would require ~~rooftop solar panel systems, solar-ready rooftop design, as feasible, or roofing material contains light coloring with a solar reflective index greater than 78~~ a photovoltaic (PV) system to be installed in accordance with the Energy Code Section 140.10.

Page 127, Table 33: Cumulative Health Risks and Hazards During Worst-Case/Concurrent Construction (Mitigated) and Operation (Unmitigated) at the MIR

Consistency with the City of Visalia's CAP

The following table has been revised:

Solar PV installations. This action emphasizes the benefit for community members to install solar photovoltaic systems.	**Consistent.** As currently designed, the proposed project would not include solar photovoltaic panels on building rooftops. ~~In addition, the Notice of Preparation (NOP) comment letter sent from the Valley Air District recommends that the proposed project include rooftop solar, or solar-ready rooftops, or light colored roofing material.~~ MM GHG-2a would require ~~that the proposed project includes one of the following measures: rooftop solar panels, solar-ready rooftop design, as feasible, or roofing material contains light coloring with a solar reflective index greater than 78.~~ a photovoltaic (PV) system to be installed in accordance with the Energy Code Section 140.10. Therefore, with implementation of MM GHG-2a the proposed project would be consistent with this action.

Page 133

The following text has been updated:

> As currently designed, the proposed project would not include solar panels or solar-ready rooftop infrastructure, resulting in a potentially significant impact due to inconsistency with the CAP. However, implementation of MM GHG-2a would require ~~the proposed project to include rooftop solar panels, solar-ready rooftop design, as feasible, or roofing material contains light coloring with a solar reflective index greater than 78 upon~~ a photovoltaic (PV) system to be installed in accordance with the Energy Code Section 140.10 prior to the issuance of a building permit.

Page 140, Table 35: Consistency with 2022 Scoping Plan Update

The following table has been revised:

Decarbonize buildings. All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed Statewide by 2030.	**Consistent.** The proposed project is consistent with the AB197 commercial timeline. In addition, the proposed project would be required to comply with CALGreen measures for 2022 as part of MM GHG-2a, which require ~~rooftop~~ PV solar panels with battery storage ~~for warehouses and heat pumps (in all climate zones) for office space in warehouses~~ a consistent with decarbonization strategies.

Page 141

The following text has been updated:

> Although not quantified in this analysis, the MM GHG-2a ~~would be required to ensure the implementation of one of the following as feasible: rooftop photovoltaic solar system, solar-ready rooftop design, or roofing material contains light coloring with a solar reflective index greater than 78.~~ would require a PV system to be installed in accordance with the Energy Code.

Page 142

The following mitigation measure has been updated:

MM GHG-2a **~~Rooftop Solar~~ Solar Photovoltaic System**

> ~~Prior to issuance of the first building permit in connection with an individual specific development proposal, the relevant project applicant shall provide the City of Visalia Planning Department reasonable documentation demonstrating that each of the buildings that are covered by the subject individual specific development proposal would be designed with one of the following: (i) rooftop photovoltaic solar panels, (ii) solar-ready rooftop design that shall support the installation of rooftop photovoltaic panel, as feasible, or (iii) roofing material contains light coloring with a solar reflective index greater than 78.~~

Prior to issuance of the first building permit in connection with an individual specific development proposal, the Planning Department shall confirm that the project is designed to include the following: The building shall be designed to include a solar photovoltaic (PV) system in accordance with 2022 Building Energy Efficiency Standards (Energy Code) Section 140.10. The required solar PV system shall be sized based on calculations provided in Section 140.10(a) of the Energy Code, which includes a number of factors such as the amount of conditioned space. Unconditioned buildings, except unoccupied or unused first-time tenant improvement spaces, do not need to be part of the solar sizing calculations. All buildings required to have a solar PV system must also have a battery storage system.

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