

APPENDIX G/INITIAL STUDY FOR A MITIGATED NEGATIVE DECLARATION

Environmental Checklist Form for: Environmental Assessment No. T-6352/P21-05405

1.	Project title: Plan Amendment-Rezone Application No. P21-05405 and Vesting Tentative Tract Map No. 6352
2.	Lead agency name and address: City of Fresno Planning and Development Department 2600 Fresno Street Fresno, CA 93721
3.	Contact person and phone number: John George, Planner III City of Fresno Planning and Development Department (559) 621-8073
4.	Project location: The 2.10-acre project site [Assessor's Parcel Number (APN): 481-436-01, 481-100-14 and 481-100-16], is located at the southeast corner of S. DeWitt Avenue and E. Laurite Avenue, in the City of Fresno. Figure 1 shows the site's regional and local context. The project site is bounded to the south by existing residential and self-storage land use, to the east, west, and north by existing residential uses. Figure 2 depicts an aerial photograph of the project site and surrounding land uses. Figure 3 shows the project site plan.
5.	Project sponsor's name and address: Patricia Rawlings, 1111 Yellowstone Ave Pocatello, ID 83201 Bill and Gail Misaki 8534 E. McKenzie Avenue Fresno, CA 93737

6.	General & Community plan land use designation: Medium Low Density Residential
7.	Zoning: RS-4 (Single-Family Residential, Medium Low Density Residential)
8.	<p>Description of project: Plan Amendment-Rezone Application No. P21-05405 and Vesting Tentative Tract Map No. 6352 were filed by Patricia Rawlings, and Bill and Gail Misaki (Project Applicant). The Project Applicant proposes to develop a 17-lot single family residential subdivision and infrastructure in the project site.</p> <p>The project site is currently zoned RS-4/UGM (<i>Single-Family Residential, Medium Low Density/Urban Growth Management</i>) and the current planned land use designation is Medium Low Density Residential, which is intended to provide for single family residential uses. The proposed zoning is RS-5/UGM (<i>Single-Family Residential, Medium Density</i>) and the proposed land use is Medium Density Residential. Therefore, a rezone and General Plan amendment are required. The RS-5 zone district is intended for smaller lots and higher density single family residential. The proposed RS-5 zoning is similar to the surrounding area. The project proposes to use RS-5 zone district development standards.</p> <p>Sewer, water, and solid waste services will be provided by the City of Fresno. Storm drainage service is provided by Fresno Metropolitan Flood Control District (FMFCD). Electric and natural gas services will be Pacific Gas and Electric (PG&E.) Telephone services will be provided by AT&T and fiber/internet will be provided by Comcast.</p> <p><u>Project Characteristics</u> The proposed project consists of infill development of a 17-lot single family residential subdivision. The proposed lots will be developed with single-family homes of similar style and architecture to the existing surrounding homes.</p> <p><u>Access, Circulation, and Parking</u> As described above, the proposed project would develop a 17-lot single family residential subdivision providing direct access from E. Laurite Avenue (local street). The proposed project would also include attached garages and allow for additional parking on the driveways.</p> <p><u>Landscaping</u> The proposed project would include landscaping and irrigation of the residential lots in the front yards and rear yards of each lot.</p> <p><u>Utilities and Infrastructure</u></p>

	<p>The project site is located in an urban area and is currently served by existing utilities, including: water, sanitary sewer, storm drainage, electricity, and natural gas infrastructure. Proposed utility connections are discussed below.</p> <p><u>Water and Wastewater</u></p> <p>Water supply and wastewater services for the proposed project would be provided by the Department of Public Utilities. The proposed project would connect to existing 8-inch water main located along E. Laurite Avenue, respectively. Additionally, the proposed project would connect to eight existing 1-inch wastewater service lines located along E. Laurite Avenue.</p> <p><u>Stormwater</u></p> <p>The FMFCD would provide flood control and urban storm water services to the project site. Stormwater from the project site would be directed to E. Laurite Avenue. The existing street improvements, curb, gutter, and roadways direct stormwater runoff to existing FMFCD storm drainage facilities.</p> <p><u>Electricity and Natural Gas</u></p> <p>Electricity and natural gas services to the site are provided by Pacific Gas and Electric Company (PG&E). PG&E has existing electric and gas facilities in E. Laurite Avenue. Existing underground utility connections and gas mains provide electricity and gas to the project site. The proposed project would connect to existing service lines in the vicinity of the project site.</p> <p><u>Grading and Construction</u></p> <p>Construction of the proposed project is expected to occur over a period of 10 months starting in March 2024. Site preparation would include removal of rocks, debris, and vegetation from the project site. Construction of the proposed project would comply with City standards, including the City's current building code, landscape standards, and lighting standards. In addition, the project site would be graded like other developments throughout the City.</p>
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9.	<p>Surrounding land uses and setting:</p> <table border="1"> <thead> <tr> <th></th> <th>Planned Land Use</th> <th>Existing Zoning</th> <th>Existing Land Use</th> </tr> </thead> <tbody> <tr> <td>North</td> <td>Medium Low Density Residential</td> <td>RS-4/UGM - Single-Family Residential, Medium Low Density/Urban Growth Management</td> <td>Single-Family Residential Neighborhood</td> </tr> <tr> <td>East</td> <td>Medium Low Density Residential</td> <td>RS-5/UGM - Single-Family Residential, Medium Density/Urban Growth Management</td> <td>Single Family Residential Home (2460 S. Clovis Ave)</td> </tr> <tr> <td>South</td> <td>Low Density Residential and Employment – Business Park</td> <td>RS-3/UGM/cz - Single-Family Residential, Low Density/Urban Growth Management/conditions of zoning BP/UGM – Employment, Business Park/Urban Growth Management</td> <td>Low Density Residential (Tract 5103), Self-Storage</td> </tr> <tr> <td>West</td> <td>Medium Low Density Residential</td> <td>RS-4/UGM - Single-Family Residential, Medium Low Density/Urban Growth Management</td> <td>Single-Family Residential Neighborhood</td> </tr> </tbody> </table>		Planned Land Use	Existing Zoning	Existing Land Use	North	Medium Low Density Residential	RS-4/UGM - Single-Family Residential, Medium Low Density/Urban Growth Management	Single-Family Residential Neighborhood	East	Medium Low Density Residential	RS-5/UGM - Single-Family Residential, Medium Density/Urban Growth Management	Single Family Residential Home (2460 S. Clovis Ave)	South	Low Density Residential and Employment – Business Park	RS-3/UGM/cz - Single-Family Residential, Low Density/Urban Growth Management/conditions of zoning BP/UGM – Employment, Business Park/Urban Growth Management	Low Density Residential (Tract 5103), Self-Storage	West	Medium Low Density Residential	RS-4/UGM - Single-Family Residential, Medium Low Density/Urban Growth Management	Single-Family Residential Neighborhood
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10.	<p>Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):</p> <ul style="list-style-type: none"> • Planning & Development Department; • Building & Safety Services Division; • Department of Public Works; • Department of Public Utilities; • County of Fresno, Department of Public Health; • City of Fresno Fire Department; • Fresno Metropolitan Flood Control District; • San Joaquin Valley Air Pollution Control District; and • Fresno Irrigation District. 																				
11.	<p>Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) Section 21080.3.1? If so, has consultation begun?</p> <p>The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for</p>																				

	<p>the purpose of protecting Traditional Tribal Cultural Resources through the California Environmental Quality Act (CEQA) Guidelines. Pursuant to PRC Section 21080.3.1, before public distribution of the document, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)). According to the most recent census data, California is home to 109 currently recognized Indian tribes. Tribes in California currently have nearly 100 separate reservations or Rancherias. Fresno County has a number of Rancherias such as Table Mountain Rancheria, Millerton Rancheria, Big Sandy Rancheria, Cold Springs Rancheria, and Squaw Valley Rancheria. These Rancherias are not located within the city limits.</p> <p>Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.</p> <p>Pursuant to Senate Bill 18 (SB 18), Native American tribes traditionally and culturally affiliated with the project area were invited to consult regarding the project based on a list of contacts provided by the Native American Heritage Commission (NAHC). This list includes tribes that requested notification pursuant to Assembly Bill 52 (AB 52). The City of Fresno mailed notices of the proposed project to each of these tribes on March 1, 2023 which included the required 90-day time period for tribes to request consultation, which ended on May 31, 2023. All tribes which were contacted declined consultation.</p> <p>Currently, the Table Mountain Rancheria Tribe and the Dumna Wo Wah Tribe have requested to be notified pursuant to Assembly Bill 52 (AB 52) Both tribes did not request consultation on this project.</p>
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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project,

involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry Resources
<input type="checkbox"/>	Air Quality	<input type="checkbox"/>	Biological Resources
<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input type="checkbox"/>	Geology/Soils	<input type="checkbox"/>	Greenhouse Gas Emissions
<input type="checkbox"/>	Hazards and Hazardous Materials	<input type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population/Housing
<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Transportation	<input type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities/Service Systems	<input type="checkbox"/>	Wildfire
<input type="checkbox"/>	Mandatory Findings of Significance		

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

<u> </u>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<u> X </u>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<u> </u>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.
<u> </u>	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be addressed.
<u> </u>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or

	NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.
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John George, Planner III Date

EVALUATION OF ADDITIONAL ENVIRONMENTAL IMPACTS NOT ASSESSED IN PROGRAM ENVIRONMENTAL IMPACT REPORT SCH NO. 2019050005 PREPARED FOR THE APPROVED FRESNO GENERAL PLAN (GP PEIR):

1. For purposes of this Initial Study, the following answers have the corresponding meanings:
 - a. "No Impact" means the specific impact category does not apply to the project, or that the record sufficiently demonstrates that project specific factors or general standards applicable to the project will result in no impact for the threshold under consideration.
 - b. "Less Than Significant Impact" means there is an impact related to the threshold under consideration, but that impact is less than significant.
 - c. "Less Than Significant with Mitigation Incorporation" means there is a potentially significant impact related to the threshold under consideration, however, with the mitigation incorporated into the project, the impact is less than significant. For purposes of this Initial Study "mitigation incorporated into the project" means mitigation originally described in the GP PEIR and applied to an individual project, as well as mitigation developed specifically for an individual project.
 - d. "Potentially Significant Impact" means there is substantial evidence that an effect may be significant related to the threshold under consideration.
2. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
3. All answers must take account of the whole action involved, including off-site as well

as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

4. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
5. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from, "Earlier Analyses," as described in (6) below, may be cross-referenced).
6. Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in the PEIR or another earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
7. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
8. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
9. The explanation of each issue should identify:

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

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in PRC Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		

DISCUSSION

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

A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the public's benefit. The City's approved General Plan identifies six locations along the San Joaquin River bluffs as designated vista points from which views should be maintained. Scenic vistas within the Planning Area could provide distant views of features such as the San Joaquin River to the north and the foothills of the Sierra Nevada Mountains to the east.

The project site is located in a primarily developed area of the city and is not located in an area with expansive or far field views. The proposed project would include the construction of 17 single family residential homes and associated infrastructure. The project site is bounded to the south by existing residential and self-storage land uses, to the east, west, and north by existing single-family residential uses. There are no significant trees, rock outcroppings, and/or historic buildings located on the subject property that have been identified as important scenic resources or would otherwise constitute significant landscape features. Therefore, the proposed project would not substantially diminish any scenic vistas within or near the project area and would likewise not substantially block or impede surrounding views.

The project site is not located within any of the scenic vista points identified in the General Plan. Furthermore, the construction of the proposed project would not significantly affect or block a potentially scenic vista in the City.

Therefore, the proposed project would result in a less-than-significant impact related to a substantial adverse effect on a scenic vista, and no mitigation is required.

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

There are no trees, rock outcroppings, and/or historic buildings located on the subject property that have been identified as important scenic resources or would otherwise constitute significant landscape features. Additionally, there are no officially designated State Scenic Highways in the immediate vicinity of the project site. According to the Caltrans State Scenic Highway Mapping System¹, there are no eligible or officially designated State Scenic Highways within the City of Fresno. However, Fresno County has three eligible State Scenic Highways; the nearest eligible highways include a portion of State Route 180, located approximately 7 miles east of the City, and a portion of State Route 168, located approximately 5 miles east of the City. The nearest officially designated State Scenic Highway is located more than 30 miles northeast of the City within the county of Madera. SR 180 is located 8 miles from the project site. SR-168 is located 11 miles from the project site. Since

1 California Department of Transportation. Scenic Highways. Available online at: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways> (accessed _March 10, 2023_)

there are no eligible or officially designated State Scenic Highways within or in close proximity to the project, site implementation of the proposed project would not damage scenic resources within a designated state scenic highway. Therefore, there would be no impact.

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

Pursuant to CEQA Guidelines, Section 15387, "[u]rbanized area" means a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. According to the 2020 Census, the City of Fresno has a population of 542,107. Therefore, the project is considered to be located in an urbanized area.

The project site is located in an urbanized area and is currently vacant. The project site is surrounded by existing single family land uses. The proposed project would include the development of 17 single family residential lots, and the construction of sidewalk, sewer, water and associated utilities. Although the proposed project would change the visual characteristics of the project site by building 17 residential homes, the design of the additions would be consistent and compatible with the visual character of the project vicinity. The proposed 17 residential homes will be of similar architectural style to the existing surrounding homes and comply with the City of Fresno building height requirements. Although the characteristics of the project site would change, the project would not substantially degrade the visual character or quality of the site and its surroundings. Therefore, the proposed project would have a less-than-significant impact.

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

The project site is located in an urbanized area subject to preexisting exterior lighting from surrounding developments and existing street lighting. The proposed project would introduce new sources of light and glare to the area in the form of low level lighting on the homes at the doors and garages.: exterior lights. However, new sources of light and glare associated with the project would be low level and similar in nature to the existing surrounding residential homes. In addition, daytime glare would not be substantial because no highly reflective glass elements or building materials are proposed as part of the project. Compliance with California Building Code (Title 24,

California Code of Regulations) standards, and implementation of Mitigation Measures AES-4.1, AES-4.2, and AES-4.5 below would address light and glare impacts to day and night-time views resulting from construction and operation of the proposed project. Therefore, potential light and glare from the proposed project would result in less-than-significant impact with mitigation incorporated.

Mitigation Measures

Mitigation Measure AES-4.1

Lighting for Street and Parking Areas. Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences.

Mitigation Measure AES-4.2

Lighting for Public Facilities. Lighting systems for public facilities such as active play areas shall provide adequate illumination for the activity; however, low intensity light fixtures and shields shall be used to minimize spillover light onto adjacent properties.

Mitigation Measure AES-4.5

Use of Non-Reflective Materials. Materials used on building facades shall be non-reflective.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

DISCUSSION

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project site is located within an urbanized area of the City of Fresno. The eastern half of the project site is identified as being Farmland of Local Importance by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). However, this area within the Farmland of Local Importance is not identified as being Prime, Unique or of Statewide Importance. Additionally, the project is proposing the RS-5 (*Single-Family Residential, Medium Density*) zone district, and the proposed project would be consistent with uses allowed within this zoning district.

Therefore, development of the proposed project would not convert agricultural land to a non-agricultural use. The proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use and the impact would be no impact.

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

The project site is designated as Medium Low Residential Density in the General Plan. Additionally, the project is proposing RS-5 (*Single-Family Residential, Medium Density*) zone district and the proposed project would be consistent with uses allowed within this zoning district. The project site is not subject to a Williamson Act contract. Therefore, development of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and the proposed project would have a no impact.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Public Resource Code Section 12220(g) defines “Forest land” as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. The project site is located within an existing urban area and is currently zoned as RS-4 (*Single-Family Residential, Medium Low Density*). The proposed zone district is RS-5 (*Single-Family Residential, Medium Density*) and the proposed land use is Medium Density Residential. The proposed project would not conflict with the existing zoning for, or cause rezoning of, forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have a no impact.

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

Public Resource Code Section 12220(g) defines “Forest land” as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. The subject property is vacant and does not support native tree species.

“Urbanized area” means a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. According to the 2020 Census, the City of Fresno has a population of 542,107. As previously discussed, the project site is located in an urbanized area and is not located in forest land.

Please refer to the discussion for c) above. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have a no impact.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

Please refer to the discussion for a) and c) above. The eastern half of the project site is identified as being Farmland of Local Importance by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). However, this

area within the Farmland of Local Importance is not identified as being Prime, Unique or of Statewide Importance. The site is currently vacant and not being used for agricultural purposes. The development of the project site would not result in the conversion of farmland to nonagricultural use. The project site is located in an urbanized area and is not located in forest land. The project site is located within an existing urban environment and would not result in the conversion of farmland to non-agricultural uses or forest land to non-forest uses. Therefore, the proposed project would have no impact.

Mitigation Measure

There are no mitigation measures relative to Agriculture and Forestry Resources impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan (e.g., by having potential emissions of regulated criterion pollutants which exceed the San Joaquin Valley Air Pollution Control Districts (SJVAPCD) adopted thresholds for these pollutants)?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?		X		
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

DISCUSSION

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

CEQA requires that certain proposed projects be analyzed for consistency with the applicable air quality plan. An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the San Joaquin Valley Air Basin (SJVAB) into attainment, the SJVAPCD adopted the 2016 Plan for the 2008 8-Hour Ozone Standard in June 2016 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.

To assure the SJVAB's continued attainment of the U.S. Environmental Protection Agency (USEPA) respirable particulate matter (PM₁₀) standard, the SJVAPCD adopted the 2007 PM₁₀ Maintenance Plan in September 2007. SJVAPCD Regulation VIII (Fugitive PM₁₀ Prohibitions) is designed to reduce PM₁₀ emissions generated by human activity. The SJVAPCD adopted the 2018 plan for the 1997, 2006, and 2012 fine particulate matter (PM_{2.5}) standard to address the USEPA federal annual PM_{2.5} standard of 12 µg/m³, established in 2012.

The SJVAPCD has established project construction and operational emissions thresholds for criteria pollutants, as shown in Table 1 below². For a project to be consistent with SJVAPCD attainment plans, the pollutants emitted from project operation should not exceed the SJVAPCD daily thresholds, cause a significant

2 San Joaquin Valley Air Pollution Control District. 2015. Air Quality Thresholds of Significance – Criteria Pollutants. Available online at: <http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf> (accessed May 31, 2023)

impact on air quality, or the project must already have been included in the attainment plans projection. As discussed below, emissions associated with the construction or operation of the proposed project would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance.

Table 1: SJVAPCD Project Construction and Operational Emission Thresholds

	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Annual Construction Emissions*	100.0	10.0	10.0	27.0	15.0	15.0
Annual Operational Emissions*	100.0	10.0	10.0	27.0	15.0	15.0

Source: San Joaquin Valley Air Pollution Control District. 2015. Air Quality Thresholds of Significance – Criteria Pollutants. Available online at: <http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf>²

*Emission units = Tons per Year (tpy)

CO = carbon monoxide

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROG = reactive organic gas

SJVAPCD = San Joaquin Valley Air Pollution Control District

SO_x = sulfur oxides

Construction and operational emissions for the proposed project were analyzed using the California Emissions Estimator Model version 2023 (CalEEMod). Model results for construction and operational emissions are shown in Table 2 and Table 3 respectively.

Table 2: Project Construction Emissions (Tons Per Year)

Project Construction	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Annual Construction Emissions*	1.68	1.52	0.16	.0005	0.16	0.06
SJVAPCD Thresholds	100.0	10.0	10.0	27.0	15.0	15.0
Exceed Threshold?	No	No	No	No	No	No

Source: Appendix C

*Emission units = Tons per Year (tpy)

CO = carbon monoxide

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROG = reactive organic gas

SJVAPCD = San Joaquin Valley Air Pollution Control District

SO_x = sulfur oxides

Table 3: Project Operational Emissions (Tons per Year)

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source Emissions	1.23	0.21	4.86	0.01	0.56	0.54
Energy Source Emissions	0.01	0.16	0.07	0.005	0.01	0.01
Mobile Source Emissions	0.44	0.32	2.65	0.01	0.18	0.005
Total Project Operational Emissions*	1.54	0.73	6.37	0.02	0.75	0.56

Table 3: Project Operational Emissions (Tons per Year)

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
SJVAPCD Significance Threshold	10.0	10.0	100.0	27.0	15.0	15.0
Exceed Threshold?	No	No	No	No	No	No

Source: Appendix C

*Emission units = Tons per Year (tpy)

CO = carbon monoxide

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROG = reactive organic gas

SJVAPCD = San Joaquin Valley Air Pollution Control District

SO_x = sulfur oxides

The results shown in Tables 2 and 3 indicate that the proposed project's construction and operational emissions would not exceed SJVAPCD criteria pollutant thresholds. Therefore, the proposed project would not conflict with or obstruct implementation of SJVAPCD air quality plans and the impact would be a less-than-significant impact.

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

CEQA Section 15355 defines a cumulative impact as “two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts.” The SJVAB is designated as non-attainment for O₃ and PM_{2.5} for federal standards and non-attainment for O₃, PM₁₀, and PM_{2.5} for State standards. The SJVAPCD's non-attainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

Therefore, if annual emissions of construction- or operational-related criteria air pollutants exceed the construction and operations thresholds, refer to Table 1 above, as established by the SJVAPCD, the proposed project would result in a cumulatively significant impact. As discussed above, the proposed project's construction and operational emissions of criteria pollutants would not exceed SJVAPCD established significance thresholds for CO, NO_x, ROG, SO_x, PM₁₀, or PM_{2.5} emissions during project construction or operation. Therefore, the proposed project would not result in a cumulatively considerable contribution to a net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less-than-significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter.

Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement measures to reduce or eliminate emissions by following the Regulation VIII, Fugitive PM₁₀ Prohibitions as required by Mitigation Measure AIR-2.1 Project construction emissions would be below the SJVAPCD significance thresholds.. Therefore, the project construction emissions would be below the SJVAPCD significance thresholds. Once constructed, the project's operational emissions would fall below the SJVAPCD significance thresholds, as indicated in Table 3 above, and the fact that the project complies with SJVAPCD significance thresholds indicates the project would not be a significant source of long-term operational emissions. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as a result of the proposed project, and the impact would be a less-than-significant impact with mitigation incorporated.

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

During construction, the various diesel-powered vehicles and equipment in use on the site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. The potential for diesel odor impacts is therefore considered less than significant. In addition, the proposed residential uses that would be developed within the project site are not expected to produce any offensive odors that would result in frequent odor complaints. The proposed project will comply with all applicable air quality plans; therefore the project will not conflict with or obstruct an applicable air quality plan. The project must comply with the construction and development requirements of the SJVAPCD, therefore, no violations of air quality standards will occur.

All development projects that involve soil disturbance are subject to at least one provision of the SJVAPCD Regulation VIII, Fugitive Dust Rules, related to the control of dust and fine particulate matter. The District's Regulation VIII – Fugitive PM₁₀ prohibitions requires controls for sources of particulate matter necessary for attaining the federal PM₁₀ standards and achieving progress toward attaining the state PM₁₀ Standards. This rule mandates the implementation of dust control measures to reduce the potential for dust to the lowest possible level. The project includes strategies to

improve air quality which includes dust control, reducing vehicle idling, a transportation control strategy and a vehicle inspection program.

The proposed project will also be subject to applicable District Rules and Regulations 4002, 4102, 4601 and 4641 as determined by the SJVAPCD.

The closest sensitive receptors are residences approximately 18 feet from the southern border of the project site. Residents are not in the immediate vicinity of the construction equipment and diesel powered equipment fumes; therefore, they would not be subjected to concentrations high enough to evoke a negative response.

Other land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The project would not engage in any of these activities. The proposed residential uses that would be developed within the project site are not expected to produce any offensive odors that would result in frequent odor complaints. The proposed residential uses would not create objectionable odors affecting a substantial number of people during project construction or operation.

The project site is not located within the screening distances of any odor generating facilities. No industrial, agricultural or other uses typically associated with objectionable odors are proposed.

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. The potential for diesel odor impacts is therefore considered less than significant. Additionally, the proposed uses that would be developed within the project site are not expected to produce any offensive odors that would result in frequent odor complaints because substantial odor-generating sources are not proposed, such as land uses including agricultural activities, feedlots, wastewater treatment facilities, landfills, or heavy manufacturing uses. The proposed project would not create objectionable odors affecting a substantial number of people during project construction or operation, and this impact would be a less-than-significant impact.

Mitigation Measures

Mitigation Measure AIR-2.1

Prior to future discretionary project approval, development project applicants shall prepare and submit to the Director of the City Planning and Development Department, or designee, a technical assessment evaluating potential project construction phase-related air quality impacts. The evaluation shall be prepared in

conformance with SJVAPCD methodology for assessing construction impacts. If construction related air pollutants are determined to have the potential to exceed the SJAVPCD adopted threshold of significance, the Planning and Development Department shall require that applicants for new development projects incorporate mitigation measures into construction plans to reduce air pollutant emissions during construction activities. The identified measures shall be included as part of the Project Conditions of Approval. Possible mitigation measures to reduce construction emissions include but are not limited to:

- Install temporary construction power supply meters on site and use these to provide power to electric power tools where feasible. If temporary electric power is available on site, forbid the use of portable gasoline- or diesel-fueled electric generators.
- Use of diesel oxidation catalysts and/or catalyzed diesel particulate traps on diesel equipment, as feasible.
- Maintain equipment according to manufacturers' specifications.
- Restrict idling of equipment and trucks to a maximum of 5 minutes (per California Air Resources Board [CARB] regulation).
- Phase grading operations to reduce disturbed areas and times of exposure.
- Avoid excavation and grading during wet weather.
- Limit on-site construction routes and stabilize construction entrance(s).
- Remove existing vegetation only when absolutely necessary.
- Sweep up spilled dry materials (e.g., cement, mortar, or dirt track-out) immediately. Never attempt to wash them away with water. Use only minimum water for dust control.
- Store stockpiled materials and wastes under a temporary roof or secured plastic sheeting or tarp.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

DISCUSSION

The analysis in this section is based on the findings of the Biological Resource Assessment prepared in October 2021 for the proposed project. The Biological Resource Assessment is included as Appendix B.

The project site is located in the Central San Joaquin Valley in Fresno County and lies in parts of Section 17, Township 14S, Range 21 East (Figure 1). The project site is bounded by E Laurite Avenue to the north, residential uses to the east, residential and self-storage land use to the south, and residential uses to the west.

The project site is vacant and disturbed from previous discing for fire prevention and maintenance activities. The project site is relatively flat. There are no natural drainage features, depressional wetlands, or riparian areas present within the project site.

The Study Area does not support habitat for special status species or suitable habitat for special status species. There are no waters of the U.S. or wetlands within the Study Area.

Methods. A field survey was conducted in September 2021, which consisted of walking across the project site while identifying land uses and biotic habitats, identifying plant and animal species encountered, and assessing the suitability of the habitats within the project site for special-status species. In addition, an analysis of potential project impacts to biological resources based on the known and potential biotic resources of the project site and vicinity was conducted. Sources of information used in the preparation of this analysis included:

- U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey of Fresno Area (Soils mapper).
- California Natural Diversity Data Base information (CNDDB), which is administered by the California Department of Fish and Wildlife (CDFW), formerly known as the California Department of Fish and Game (CDFG). This database covers sensitive plant and animal species as well as sensitive natural communities that occur in California.
- Fresno County Farmland Mapping and Monitoring Program (FMMP) 1984-2014
- United States Fish and Wildlife Service's (USFWS) Information for Planning and Conservation (IPaC) Online System, which lists all proposed, candidate, threatened, and endangered species managed by the Endangered Species Program of the USFWS that have the potential to occur on or near a particular site. This database also lists all known critical habitats, national wildlife refuges, and migratory birds that could potentially be impacted by activities from a proposed project.
- The USFWS National Wetlands Inventory was reviewed to determine whether any wetlands or surface waters of the United States have been previously identified in the survey area.

In addition to the databases listed above, historic, and current aerial imagery, existing environmental reports for developments in the project vicinity, and local land use policies related to biological resources were reviewed.

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

The following analysis is sourced from a Biological Resource Assessment prepared by Argonaut Ecological Consulting, Inc dated October 2021, refer to Appendix B, for the project.

Special-Status Natural Communities. No special-status natural communities or conservation areas exist within the project site or in adjacent parcels. The project site is completely isolated and distant from all special-status natural communities that occur in the region. Therefore, no special-status natural community would be impacted by the proposed project.

Special-Status Plants. No special-status plants exist within the project site or in

adjacent parcels. The project site does not contain suitable habitat and is situated outside of the species' known distribution. Therefore, as the project site does not contain any special-status plants, special-status plants would not be impacted by the proposed project.

Special-Status Animals. No special-status species were observed on the project site during the on-site survey.

Swainson's hawk (*Buteo swainsoni*) is listed as State-Threatened under the California Endangered Species Act (April 17, 1983). It is considered an uncommon breeding resident and migrant in Northern California, and occurs primarily in the Central Valley and on the Northeastern Plateau. There is no suitable nesting habitat for Swainson's hawk at the project site as there are no large trees that could be used for nesting.

In addition, nearly all native birds are protected by the Federal Migratory Bird Treaty Act, the California Migratory Bird Protection Act (16 USC Section 703-711), and the California Fish and Game Code Section 1802. Construction activities that occur during the nesting bird season (typically February 1 through August 31) have potential to result in the mortality/disturbance of nesting birds. However, pursuant to Biological Resource Assessment prepared by Argonaut Ecological Consulting, Inc. dated October 2021, there are no potential raptor nesting trees (or many trees) or migratory birds nesting habitat within the Study Area.

Critical Habitat. The project site is not located within or adjacent to critical habitat. Therefore, the project would not result in any impacts to critical habitat, and no mitigation is required.

The project site is located in an urbanized area and is currently vacant. However, the property has been graded and disced in the past. Due to the urban location and lack of landscaping on the site itself, the project site does not provide suitable habitat for special-status animal species. Common wildlife species that are adapted to urban environments are expected to continue to use the site and vicinity after redevelopment. The Study Area is highly disturbed and only supports weedy species. The site is not occupied by, or suited for, any special-status species. Therefore, the proposed project would not result in direct or indirect adverse effects of special-status plants or wildlife, and there would be no impact.

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

Refer to Biological Resource Assessment prepared by Argonaut Ecological Consulting, Inc. dated October 2021, refer to Appendix B. Future development that occurs in the vicinity of the San Joaquin River, its tributaries, any lakes or streams, and/or open grasslands with seasonal wetlands, may result in a significant impact to riparian habitat or a special-status natural community.

Pursuant to the Biological Resource Assessment prepared by Argonaut Ecological Consulting, Inc. dated October 2021, the following determinations were made:

- The Study Area was in agricultural production until the nearly 2000s. Since that time, the site has been routinely disced for fire suppression
- There are no waters of the U.S./waters of the State within the Study Area.
- There were no historic drainages/creeks within the Study Area.
- The Study Area is highly disturbed and only supports weedy species
- There are no potential raptor nesting trees (or many trees) or migratory birds nesting habitat within the Study Area.
- Development of the Study Area will not result in any significant impacts on biological resources.

As a result, there would be no impact.

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

Refer to Biological Resource Assessment prepared by Argonaut Ecological Consulting, Inc., dated October 2021, refer to Appendix B. Future development that occurs in the vicinity of the San Joaquin River corridor may result in significant impacts to protected wetlands. No aquatic resources occur within the project site, or within the vicinity of the project site. The project site consists entirely of developed areas. As a result, the impact would be no impact.

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

Refer to Biological Resource Assessment prepared by Argonaut Ecological Consulting, Inc., dated October 2021, refer to Appendix B.

Swainson's hawk (*Buteo swainsoni*) is listed as State-Threatened under the California Endangered Species Act (April 17, 1983). It is considered an uncommon breeding resident and migrant in Northern California, and occurs primarily in the Central Valley and on the Northeastern Plateau. There is no suitable nesting habitat for Swainson's hawk at the project site as there are no large trees that could be used for nesting.

In addition, nearly all native birds are protected by the Federal Migratory Bird Treaty Act, the California Migratory Bird Protection Act (16 USC Section 703-711), and the California Fish and Game Code Section 1802. Construction activities that occur during the nesting bird season (typically February 1 through August 31) have potential to result in the mortality/disturbance of nesting birds. However, pursuant to Biological Resource Assessment prepared by Argonaut Ecological Consulting, Inc. dated October 2021, there are no potential raptor nesting trees (or many trees) or migratory birds nesting habitat within the Study Area. As a result, there would be no impact.

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

Refer to Biological Resource Assessment prepared by Argonaut Ecological Consulting, Inc., dated October 2021, refer to Appendix B. Though the proposed project is subject to provisions of the City's Municipal Code regarding trees on public property (Article 3 of Section 13 of the City of Fresno Municipal Code), the proposed project would not conflict with any of the existing ordinances. There are no trees, or biological resources on the subject property. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources. As a result, the impact would be no impact.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Refer to Biological Resource Assessment prepared by Argonaut Ecological Consulting, Inc. , dated October 2021, refer to Appendix B. The PG&E San Joaquin Valley Operation and Maintenance (O&M) Habitat Conservation Plan (HCP)³ was approved in 2007 and covers portions of nine counties, including Fresno County. This HCP covers PG&E activities which occur as a result of ongoing O&M that would have an adverse impact on any of the 65 covered species and provides incidental take coverage from the USFWS and CDFW. The project site is not located within the covered area of any HCP, Natural Community Conservation Plan (NCCP), or other adopted local, regional or state HCP. Therefore, the project would not conflict with the provisions of the PG&E HCP and the proposed project and would have no impact.

Mitigation Measures

There are no mitigation measures relative to Biological Resources impacts.

3 Pacific Gas and Electric (PG&E). 2007. PG&E San Joaquin Valley Operation & Maintenance Habitat Conservation Plan. Available online at: https://ecos.fws.gov/docs/plan_documents/thcp/thcp_838.pdf (accessed March 2023)

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

DISCUSSION

A Cultural and Historical Resources Assessment was prepared for the proposed project, which is included as Appendix A. The Cultural and Historical Resources Assessment included a records search at the California Historical Resources Information System (CHRIS) Southern San Joaquin Valley Information Center (SSJVIC) to identify whether there are any prior cultural resource studies or previously recorded cultural resources in the project area, additional background research, and a pedestrian field survey of the project area. The analysis in this Cultural Resources section is based on the results of the Cultural and Historical Resources Assessment.

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

Refer to Cultural and Historical Resource Assessment prepared by Peak and Associates, Inc., dated October 27, 2021. The Project Area is located in a disturbed tract of land within an existing developed residential neighborhood.

A record search for the Project limits and a ¼-mile radius has been conducted through the Southern San Joaquin Valley Information Center of the California Historical Resources Information System. The search identified that there have been two cultural resource surveys conducted within the ¼ mile search radius, at the southern edge of the search area near Jensen Avenue in 2005 and 2011 (FR-02260 and FR-

02426). One of these reports recorded a building at 5537 East Jensen Avenue as P-10-006976 (See Appendix A for full citations).

The older Malaga USGS topographic map from 1923 has been reviewed, with the map showing no evidence of buildings or historic land use in the past.

In addition, a survey was conducted of the project area with no cultural resources found within or adjacent to the project site. If cultural resources are found during construction, all work should be halted and an archeologist should be consulted for advice.

A historical resource defined by CEQA section 15064.5 includes one or more of the following criteria: 1) the resource is listed, or found eligible for listing in, the California Register of Historical Resources (CRHR); 2) listed in a local register of historical resources as defined by Public Resources Code (PRC) Section 5020.1(k); 3) identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or 4) determined to be a historical resource by the project's lead agency (PRC Section 21084.1; CEQA Guidelines Section 15064.(a)). Under CEQA, historical resources include built-environment resources and archaeological sites.

As discussed in the Cultural Resources Report/Historic Resource Assessment, attached in Appendix A, no historical resources were identified within or adjacent to the project site. However, project development could result in potential impacts to unknown resources that are located below the ground surface. Adherence to the requirements in Mitigation Measure CUL-1.1 would reduce potential impacts to unknown historical resources to less than significant with mitigation incorporated.

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

According to the CEQA Guidelines, "When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource" (CEQA Guidelines Section 15064.5(c)(1)). Those archaeological sites that do not qualify as historical resources shall be assessed to determine if these qualify as "unique archaeological resources" (California PRC Section 21083.2). No archaeological resources were identified in the project site. However, due to the nominal amount of prehistoric archaeological information within the majority of the City, including the project site, there is potential to impact prehistoric archaeological resources during grading and construction activities within previously undisturbed soils. Adherence to the requirements in Mitigation Measure CUL-2 would reduce potential impacts to unknown archeological resources to less than significant with mitigation incorporated.

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

Disturbance of human remains interred outside of formal cemeteries would result in a significant impact. If human remains are identified during project construction, Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code shall apply, as appropriate. Although there is no record of isolated human remains or unknown cemeteries on the project site, there is always a possibility that ground-disturbing activities associated with future development may uncover previously unknown buried human remains. Adherence to the requirements Mitigation Measure CUL-3 would reduce potential impacts to unknown human remains to less than significant with mitigation incorporated.

Mitigation Measures

Mitigation Measure CUL-1.1

If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance.

If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

Mitigation Measure CUL-2

Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for prehistoric

archaeological resources shall be conducted. The following procedures shall be followed.

If prehistoric resources are not found during either the field survey or literature search, excavation and/or construction activities can commence. In the event that buried prehistoric archaeological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. If the resources are determined to be unique prehistoric archaeological resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any prehistoric archaeological artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

If prehistoric resources are found during the field survey or literature review, the resources shall be inventoried using appropriate State record forms and submit the forms to the Southern San Joaquin Valley Information Center. The resources shall be evaluated for significance. If the resources are found to be significant, measures shall be identified by the qualified archaeologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include an archaeological monitor. The monitoring period shall be determined by the qualified archaeologist. If additional prehistoric archaeological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.

Mitigation Measure CUL-3

In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance

shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

DISCUSSION

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

The project proposes 17 single family residential homes and will consume energy in the short-term during project construction and in the long-term during its daily

operations. During construction, the project would typically consume energy from construction vehicles and related equipment. Energy consumption would also occur with long term buildout of the 17 residential lots, such as heating and cooling, refrigeration, lighting, and electronics equipment and during each vehicle trip associated with the proposed use.

The California Building Standards Code (Title 24) addresses regulations that apply to the planning, design, operation, construction, use and occupancy of newly constructed buildings or structures. Per these standards, the California Energy Code and the California Green Building Standards Code, (*CALGreen*) provide mandatory standards to maximize energy conservation with the use of recycled materials and products in order to reduce materials costs. As such, it is anticipated that materials used in construction of the 17 single family residential lots would not involve the wasteful, inefficient, or unnecessary consumption of energy.

The proposed development would be required to comply with the State-mandated building codes to meet minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of these standards significantly increases energy savings, and adherence to State mandated code requirements and conservation requirements in the Energy Code and CALGreen would ensure that project development would not result in wasteful, inefficient, or unnecessary consumption of energy resources. As a result, the project will have a less than significant impact on energy.

In addition, proposed new development would be constructed using energy efficient modern building materials and construction practices, and the proposed project also would be consistent with current Title 24 standards, as discussed above. The expected energy consumption during construction and operation of the proposed project would be consistent with typical usage rates for similar uses; however, energy consumption is largely a function of personal choice and the physical structure and layout of buildings.

PG&E is the private utility that would supply the proposed project's electricity and natural gas services. In 2021, a total of 50 percent of PG&E's delivered electricity came from renewable sources, including solar, wind, geothermal, small hydroelectric and various forms of bioenergy. PG&E reached California's 2020 renewable energy goal in 2017, and is positioned to meet the State's 60 percent by 2030 renewable energy mandate set forth in Senate Bill (SB) 100. In addition, PG&E plans to continue to provide reliable service to their customers and upgrade their distribution systems as necessary to meet future demand.

The proposed project would be constructed using energy efficient modern building

materials and construction practices, and the proposed project would also use new modern appliances and equipment, in accordance with the Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608). The expected energy consumption during construction and operation of the proposed project would be consistent with typical usage rates for residential uses; however, energy consumption is largely a function of personal choice and the physical structure and layout of buildings. It can be assumed that implementation of the proposed project would result in additional energy demand in the City; however, since the proposed project would be located in a developed urban area and would be required to comply with the City's energy efficiency policies, including General Plan Policies RC-8-a through RC-8-k the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Therefore, the project would have a less than significant impact.

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

In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission (ZE) vehicles and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The most recently CEC adopted energy reports are the 2021 Integrated Energy Policy Report and 2022 Integrated Energy Policy Report Update. The Integrated Energy Policy Reports provide the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The Integrated Energy Policy Reports cover a broad range of topics, including implementation of Senate Bill 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

The proposed project would be required to comply with the CALGreen Code (CCR Title 24, Part 11) and the California Energy Code (CCR Title 24, Part 6), which includes provisions related to insulation and design aimed at minimizing energy consumption.

The proposed project would also be required to comply with the City's Greenhouse Gas Reduction Plan. The 2014 Greenhouse Gas Reduction Plan (GHG Plan) provided a comprehensive assessment of the benefits of General Plan and Development Code policies along with existing plans, programs, and initiatives that reduce GHG emissions. In addition, the GHG Plan includes an emission reduction target for demonstrating consistency with State GHG reduction targets. The analysis prepared to quantify GHG emissions and emission reductions provides the basis for the GHG Plan targets and for CEQA significance findings of implementing the approved General Plan and the GHG Plan.

The 2021 Greenhouse Gas Reduction Plan Update was prepared to re-evaluate the City's existing GHG reduction targets and strategies. The GHG Plan Update provides new goals and supporting measures to reflect and ensure compliance with changes in the local and State policies while ensuring it encourages economic growth and keeps the city economically competitive while achieving GHG reductions and maintaining the "CEQA Qualified Plan" status.⁴

As indicated above, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Because California's energy conservation planning actions are conducted at a regional level, and because the proposed project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's Integrated Energy Policy Reports. In addition, as identified above, electricity and natural gas demand associated with the proposed project would be less than 0.1 percent of Fresno County's total natural gas demand.

The proposed project would be compliant with relevant energy-efficient policies and recommendations outlined in the Greenhouse Gas Reduction Plan Update. The recommendations and policies that would be implemented by the project are outlined below.

The proposed development would be required to comply with the State-mandated building codes to meet minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment,

4 City of Fresno. 2021. Appendix G-Greenhouse Gas Reduction Plan Update. Available online at: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2021/03/Link4AppendixGGHGRPUupdate.pdf> (accessed _November 5, 2022_)

building insulation and roofing, and lighting. Implementation of these standards significantly increases energy savings, and adherence to State mandated code requirements and conservation requirements in the Energy Code and CALGreen would ensure that project development would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

Therefore, the proposed project would not conflict or obstruct state and local plans for energy efficiency and renewable energy, and the impact would be less than significant.

Mitigation Measures

There are no mitigation measures relative to Energy impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or Indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

DISCUSSION

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

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

Fault ruptures are generally expected to occur along active fault traces that have

exhibited signs of recent geological movement (i.e., in the last 11,000 years). Alquist-Priolo Earthquake Fault Zones delineate areas around active faults with potential surface fault rupture hazards that would require specific geological investigations prior to approval of certain kinds of development within the delineated area. The project site is not located within an Alquist-Priolo Earthquake Fault Zone. In addition, no known active or potentially active faults or fault traces are located in the project vicinity. As a result, potential impacts related to fault ruptures would be less than significant.

ii. Strong seismic ground shaking?

The City of Fresno is located in an area with historically low to moderate level of seismicity. However, strong ground shaking could occur within the project site during seismic events and occurrences have the possibility to result in significant impacts. Major seismic activity along the nearby Great Valley Fault Zone or the Nunez Fault, or other associated faults, could affect the project site through strong seismic ground shaking. Strong seismic ground shaking could potentially cause structural damage to the proposed project. However, due to the distance to the known faults, hazards due to ground shaking would be minimal. In addition, compliance with the California Building Code (Title 24, California Code of Regulations) would ensure that the geotechnical design of the proposed project would reduce potential impacts related to seismic ground shaking to less than significant.

iii. Seismic-related ground failure, including liquefaction?

The predominant soils within the City of Fresno consist of varying combinations of loose/very soft to very dense/hard silts, clays, sands, and gravels. Groundwater has been encountered near the ground surface in close proximity to water-filled features such as canals, ditches, ponds, and lakes. Based on these characteristics, the potential for soil liquefaction within the City ranges from very low to moderate due to the variable density of the subsurface soils and the presence of shallow groundwater. In addition to liquefaction, the City could be susceptible to induced settlement of loose unconsolidated soils or lateral spread during seismic shaking events. Based on the nature of the subsurface materials and the relatively low to moderate seismicity of the region, seismic settlement and/or lateral spread are not anticipated to represent a substantial hazard within the City during seismic events.

Based on the nature of the subsurface materials and the relatively low to moderate seismicity of the region, potential for seismic related ground failure is low in

Fresno.⁵ Additionally, compliance with the Fresno Municipal Code and the California Building Code, as well as General Plan Policies NS-2-a through NS-2-d would ensure that potential impacts associated with seismic-related ground failure would be less than significant.

iv. Landslides?

A landslide generally occurs on relatively steep slopes and/or on slopes underlain by weak materials. The City of Fresno is located within an area that consists of mostly flat topography within the Central Valley. Accordingly, there is no risk of large landslides in the majority of the City. However, there is the potential for landslides and slumping along the steep banks of rivers, creeks, or drainage basins such as the San Joaquin River bluff and the many unlined basins and canals that trend throughout the City. The project site is located in a relatively flat area, and it is not in the vicinity of the San Joaquin River bluff or any unlined basins or canals. Therefore, the potential for the proposed project to expose people or structures to risk as a result of landslides would be less than significant.

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

The total project site is 2.1 acres, which would be disturbed/developed during proposed grading and construction activities. Grading and earthmoving during project construction has the potential to result in erosion and loss of topsoil. Exposed soils could be entrained in stormwater runoff and transported off the project site. However, this impact would be reduced to a less than significant level through compliance with water quality control measures, which include preparation of a Stormwater Pollution Prevention Plan (SWPPP) (refer to Section X, Hydrology and Water Quality). Although designed primarily to protect stormwater quality, the SWPPP would incorporate Best Management Practices (BMPs) to minimize erosion. Additional details regarding the SWPPP are provided in Section X, Hydrology and Water Quality of this Initial Study. This impact would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

As described in discussion a) in this section, soils on the project site would not be subject to liquefaction, lateral spreading, or landslides. Additionally, the proposed project would be required to conform with the California Building Code, which would reduce risks related to unstable soils. Therefore, the proposed project would have a

⁵ City of Fresno. 2020. General Plan Program Environmental Impact Report - Geology and Soils. Available online at: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/03/Fresno-GP-Public-Review-Draft-Program-EIR.pdf> (accessed _November 5, 2022_)

less-than-significant impact related to unstable soils.

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

The surface and near-surface soils observed throughout the City consist of varying combinations of clays, silts, sands, gravels, and cobbles. The clayey soils, which consist of very fine particles, are considered to be slightly to moderately expansive. The project site contains Exeter sandy loam, a soil with relatively low clay content and shrink-swell potential.

Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume. The project shall comply with the California Building Code requirements, which would ensure that geotechnical design of the proposed project would reduce potential impacts related to expansive soils to a less-than-significant level. As such, the risk of expansive soil affecting the proposed project is considered low. Impacts to expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property would be less than significant.

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

The project site would be served by a wastewater conveyance system maintained by the Wastewater Management Division (WMD) of the City of Fresno. Wastewater from the City's collection system is treated at the Fresno/Clovis Regional Wastewater Reclamation Facility. Development of the proposed project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, the proposed project would have no impact related to the use of septic tanks or alternative wastewater disposal systems.

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

Development in the City of Fresno could potentially impact unknown paleontological resources or unique geological features. Implementation of GP PEIR Mitigation Measure GEO-6.1 would ensure that a field survey and record search are conducted prior to construction on a previously undisturbed site, and that paleontological/geological resources found during the field survey or during project construction would be handled and preserved by a qualified paleontologist.

Adherence to the requirements in Mitigation Measure GEO 6.1 would reduce potential impacts to paleontological and geological resources to less than significant with mitigation incorporated.

Mitigation Measures

Mitigation Measure GEO-6.1

Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for unique paleontological/geological resources shall be conducted. The following procedures shall be followed:

- If unique paleontological/geological resources are not found during either the field survey or literature search, excavation and/or construction activities can commence. In the event that unique paleontological/geological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified paleontologist shall be consulted to determine whether the resource requires further study. The qualified paleontologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to, excavation of the finds and evaluation of the finds. If the resources are determined to be significant, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any paleontological/geological resources recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.
- If unique paleontological/geological resources are found during the field survey or literature review, the resources shall be inventoried and evaluated for significance. If the resources are found to be significant, mitigation measures shall be identified by the qualified paleontologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include a paleontological monitor. The monitoring period shall be determined by the

qualified paleontologist. If additional paleontological/geological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

DISCUSSION

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

The *State CEQA Guidelines* indicate that a project would normally have a significant adverse greenhouse gas emission impact if the project would:

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

Section 15064.4 of the *State CEQA Guidelines* states that: “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.” In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify greenhouse gas emissions, or to rely on a qualitative analysis or performance-based standards. In making a determination as to the significance of potential impacts, the lead agency

then considers “the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.”

State CEQA Guidelines, Section 15183.5, states that “a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program.”

Therefore, if a project is consistent with an adopted qualified Greenhouse Gas Reduction Strategy that meets the standards, it can be presumed that the project would not have significant greenhouse gas emission impacts.

The City of Fresno 2021 Greenhouse Gas Reduction Plan (GHG Reduction Plan) meets the requirements for a Qualified Greenhouse Gas Reduction Strategy. Therefore, the proposed project’s GHG emissions would not be considered a significant impact if the proposed project would be consistent with the City’s GHG Reduction Plan Update.

Table 4 below evaluates the proposed project’s consistency with the applicable objectives and policies included in the GHG Reduction Plan Update.

Table 4: Consistency with Fresno Greenhouse Gas Reduction Plan Update

GHG Reduction Plan Strategy	Project Consistency with Strategy
Policy LU-2-a Infill Development and Redevelopment.	Consistent. The project proposes to develop vacant infill property within the City limits.
Policy UF-14-b Local Street Connectivity	Consistent. The project proposes local roadways to connect throughout neighborhoods and large private developments with adjacent major roadways and pathways of existing adjacent development.
Policy UF-14-c Block Length.	Consistent. The project proposes desired and maximum block lengths in residential districts in order to enhance walkability.

Source: City of Fresno. 2021. Appendix G-Greenhouse Gas Reduction Plan Update. Available online at: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2021/03/Link4AppendixGGHGRUpdate.pdf> (accessed _June 7, 2023_).

As shown in Table 4 above, the proposed project would be consistent with the applicable strategies from the GHG Reduction Plan Update. Therefore, the proposed project would not generate substantial greenhouse gas emissions, or conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

The impact would be less-than-significant.

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

The SJVAPCD has adopted a Climate Change Action Plan (CCAP), which includes suggested best performance standards (BPS) for proposed development projects. However, the SJVAPCD's CCAP was adopted in 2009 and was prepared based on the State's 2020 GHG targets, which are now superseded by State policies (i.e., the 2019 California Green Building Code) and the 2030 GHG targets, established in SB 32. As discussed above, the proposed project is consistent with the City's GHG Reduction Plan Update.

In addition, the proposed project was analyzed for consistency with the goals of Executive Order (EO) B-30-15, SB 32, AB 197, and the Scoping Plan.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. CARB released the 2017 Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32. SB 32 keeps the State on the path toward achieving the 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

The Scoping Plan contains GHG reduction measures that work towards reducing GHG emissions, consistent with the targets set by EO B-30-15 and codified by SB 32 and AB 197. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as qualitatively discussed below.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The proposed project would be required to comply with the latest Title 24 standards of the CCR, established by the CEC, regarding energy conservation and green building standards. Therefore, the proposed project would comply with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the proposed project would be required to comply with the latest Title 24 standards of the CCR, which includes a variety of different measures, including reduction of wastewater and water use. In addition, the proposed project would be designed to include drought tolerant landscaping. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

AB 1493 Pavley Regulations and Fuel Efficiency Standards

California AB 1493, enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011 (CARB 2013c).

The standards are to be phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in an approximately 22-percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30-percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant (CARB 2013).

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The new rules will reduce pollutants from gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles and hydrogen fuel cell cars. The regulations will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California (CARB 2011).

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. The second phase of Pavley

standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025, resulting in a 3 percent decrease in average vehicle emissions for all vehicles by 2020. All new vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

As such, the proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in EO B-30-15, SB 32, AB 197, and would be consistent with applicable plans and programs designed to reduce GHG emissions.

As shown in discussion a) above, the proposed project would be consistent with the applicable strategies from the GHG Reduction Plan Update. Therefore, the proposed project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The impact would be less-than-significant.

Mitigation Measures

There are no mitigation measures relative to Greenhouse Gas Emissions impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIAL – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

DISCUSSION

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction activities associated with the proposed project would involve the use of limited amounts of potentially hazardous materials, including but not limited to, solvents, paints, fuels, oils, and transmission fluids. However, all materials used during construction would be contained, stored, and handled in compliance with applicable standards and regulations established by the Department of Toxic Substances Control

(DTSC), the United States Environmental Protection Agency (USEPA), and the Occupational Safety and Health Administration (OSHA). All storage, handling, and disposal of hazardous materials during project construction and operation would comply with applicable safety standards and regulations, including General Plan Policies NS-4-a, NS-4-e, and NS-4-f.⁶ No manufacturing, industrial, or other uses utilizing large amounts of hazardous materials would occur within the project site. Therefore, the proposed project would have a less-than-significant impact associated with the routine transport, use, or disposal of hazardous materials, and no mitigation is required.

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

See discussion a) above. The proposed project would not result in a significant hazard to the public or the environment through the transport of hazardous materials. Additionally, the General Plan includes Objective NS-4 and Policies NS-4-a, NS-4-c, NS-4-e, NS-4-f and NS-4-g, which require site and project-specific compliance with local, State and federal standards and procedures to avoid the release or upset of hazardous materials. Therefore, compliance with federal and state regulations and applicable General Plan policies would ensure that the project would not result in significant hazards to the public or environment through the release of hazardous materials. The impact would be less than significant.

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

The closest existing schools include Phoenix Secondary School and Storey Elementary School, located approximately 0.5 miles west of the project site, and Sanger West High School, located approximately 1.3 miles east of the project site. As previously stated, the proposed project would not result in the use or emission of substantial quantities of hazardous materials that would pose a human or environmental health risk. In addition, all materials would be handled, stored, and disposed of in accordance with applicable standards and regulations. Therefore, because the proposed project does not involve activities that would result in the emission of hazardous materials or acutely hazardous substances to an existing or proposed school, implementation of the proposed project would result in a less-than-significant impact in the use or emission of hazardous materials that would adversely affect a school.

6 City of Fresno. 2014. Fresno General Plan-Noise and Safety Element, pgs. 9-33, 9-34. Available online at: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/GP9NoiseandSafety.pdf> (accessed _November 5, 2022_).

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

According to the DTSC EnviroStor database,⁷ the project site is not located on a federal superfund site, State response site, voluntary cleanup site, school cleanup site, evaluation site, school investigation site, military evaluation site, tiered permit site, or corrective action site. Additionally, the project site is not included on the list of hazardous waste sites compiled pursuant to Government Code Section 65962.5.⁸ As a result, no hazards to the public or environment are anticipated, and there would be no impact.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

The nearest airports include the Sierra Sky Airport, located approximately 12.8 miles northwest of the project site, the Fresno Yosemite International Airport, located approximately 3.5 miles north of the project site, and the Fresno Chandler Executive Airport, located approximately 6.3 miles southeast of the project site. In addition, the nearest medical center helipads include the Community Regional Medical Center, located 4.6 miles northwest of the project site. Due to the distance between the project site and local airports and helipads, operations at these locations are not expected to pose a safety hazard for people on the project site. Therefore, the proposed project would not expose persons to airport-related hazards, and the potential impact would be less-than-significant.

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

The California Emergency Services Act requires cities to prepare and maintain an Emergency Plan for natural, manmade, or war-caused emergencies that result in conditions of disaster or in extreme peril to life. The City's full-time Emergency Preparedness Officer (EPO) is responsible for ensuring that Fresno's emergency response plans are up-to-date and implemented properly. The EPO also facilitates cooperation between City departments and other local, State and federal agencies

7 California Department of Toxic Substances Control. 2007. EnviroStor. Available online at: <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=fresno> (accessed _May 31, 2023_)

8 California Environmental Protection Agency. 2018. Government Code Section 65962.5(a) Hazardous Waste and Substances Site List. Available online at: <https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/> (accessed _May 31, 2023_)

that would be involved in emergency response operations. The City of Fresno Emergency Operations Center (EOC) serves as the coordination and communication between the City of Fresno and Fresno County Operational Area EOC. The proposed project would not result in any alterations of existing roadways that would block the circulation of emergency response services or introduce elements that would conflict with the operations of the EOC. Therefore, the proposed project would not interfere with emergency evacuation plans in the City, and this impact would be less than significant.

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

The project site is located in an area mapped as Local Responsibility Area (LRA) Unzoned, indicating that the area is urbanized and not susceptible to wildland conflagrations, and is not located within a very high fire hazard severity zone (VHFHSZ).⁹ Therefore, the proposed project would not expose people or structures to a significant loss, injury or death involving wildland fires and the impact would be no impact.

Mitigation Measures

There are no mitigation measures relative to Hazards and Hazardous Materials impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	

9 California Department of Forestry and Fire Protection (CAL FIRE). 2007. *Fresno County Fire Hazard Severity Zones in LRA*. Kune . Available online at: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf (accessed _March 10, 2023_)

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
i) Result in a substantial erosion or siltation on- or off-site;			X	
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site:			X	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
iv) impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

DISCUSSION

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

The State Water Resources Control Board and nine Regional Water Quality Control Boards regulate the water quality of surface water and groundwater bodies throughout California. The proposed project is within the jurisdiction of the Central Valley Regional Water Quality Control Board (RWQCB).

Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During project construction, there would be an increased potential to expose soils to wind and water erosion, which could result in temporary minimal increases in sediment load in nearby water bodies, including San Joaquin River located approximately 11-miles north of the project site.

The project site is 2.1 acres. In compliance with the General Plan, any development project disturbing one or more acres of soil must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). Construction activities subject to the Construction General Permit includes clearing, grading, and other ground-disturbing activities such as stockpiling or excavation. The Construction General Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

A SWPPP includes features designed to eliminate contact of rainfall and stormwater runoff with sources of pollution that occur on construction sites, the main source being soil erosion resulting from unstabilized soils coming in contact with water and wind. These features are known as Best Management Practices (BMPs). Common BMPs to limit pollution in stormwater runoff from construction sites include maintaining or creating drainages to convey and direct surface runoff away from bare areas and installing physical barriers such as berms, silt fencing, waddles, straw bales, and

gabions. As required under Section 4.10, Hydrology, of the General Plan PEIR, compliance with requirements under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, including the SWPPP and BMPs, would reduce project construction impacts on water quality to less than significant levels.

Long-term operation impacts associated with the proposed project would be reduced to less than significant levels with the implementation of the City's Storm Drainage and Flood Control Master Plan (SDFCMP), which manages the City's stormwater drainage systems, and the City's participation in the Phase 1 NPDES Permit for Stormwater Discharges From Municipal Separate Storm Sewer Systems (Phase 1 MS4), which requires the City to implement water quality and watershed protection measures for all development projects.

Therefore, impacts associated with the proposed project would be less than significant.

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

The City of Fresno overlies the Kings Subbasin, which is part of the greater San Joaquin Valley Groundwater Basin. Temporary dewatering from excavations could be necessary during construction. Construction-related dewatering would be temporary and limited to the area of excavations on the project site and would not substantially contribute to depletion of groundwater supplies. Operation of the project would not require groundwater extraction. Following project implementation, there would be an increase in impervious surface area. An increase in impervious surface area decreases infiltration, which can decrease the amount of water that is able to recharge the aquifer/groundwater. As discussed in the Project Description, FMFCD would provide flood control and urban storm water services to the project site. Stormwater from the project site would utilize the existing roadway improvements, curb, and gutters to reach the existing FMFCD underground storm drainage facilities at Minnewawa and Laurite to the west. The existing FMFCD underground storm drainage facilities collect and discharge stormwater runoff to Basin "BG", located at the NWC of Minnewawa Ave and Annadale Avenue. As such, the proposed project would connect to existing drainage facilities and would not substantially decrease any infiltration that currently may occur in the area. Therefore, the project would not impede the Central Valley Regional Water Quality Control Board's ability to manage groundwater. Thus, this project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable management of the Kings Subbasin. Impacts would be less than significant, and no mitigation is required.

Additionally, as discussed below in Section XIX, Utilities and Service Systems, the City receives its water supply from groundwater and surface water. The City has indicated that groundwater wells, pump stations, recharge facilities, water treatment and distribution systems shall be expanded incrementally to mitigate increased water demands. One of the primary objectives of Fresno's future water supply plans detailed in the City's current Urban Water Management Plan (UWMP) is to balance groundwater operations through a host of strategies. Through careful planning, Fresno has designed a comprehensive plan to accomplish this objective by increasing surface water supplies and surface water treatment facilities, intentional recharge, and conservation, thereby reducing groundwater pumping. The City continually monitors impacts of land use changes and development project proposals on water supply facilities by assigning fixed demand allocations to each parcel by land use as currently zoned or proposed to be rezoned.

The City relies on groundwater and surface water supplies to meet water demands. In 2006, Fresno updated its Metropolitan Water Resources Management Plan designed to ensure the Fresno metro area has a reliable water supply through 2050. The plan implements a conjunctive use program, combining groundwater, treated surface water, artificial recharge, and an enhanced water conservation program.

The General Plan policies require the City to maintain a comprehensive conservation program to help reduce per capita water usage, and includes conservation programs such as landscaping standards for drought tolerance, irrigation control devices, leak detection and retrofits, water audits, public education and implementing U.S. Bureau of Reclamation Best Management Practices for water conservation to maintain surface water entitlements.

The potable water demand projections in the City's UWMP are based on land use projections. The proposed project site is included in the land use area covered by the City's UWMP. In addition, the proposed project is consistent with the single-family residential use designation; therefore, it is assumed that demand for water was accounted for in the UWMP. There is no evidence, in consideration of the calculated project water demand, that such demand exceeds that estimated in the UWMP. The adequacy of the water supply for the project is thus consistent with the basis of the analysis of the City's water supply in the adopted UWMP.

Water supply and wastewater services for the proposed project would be provided by the City of Fresno through the Department of Public Utilities (DPU) Water and Wastewater Management Divisions. As discussed below in Section XIX, Utilities and Service Systems, the City receives all of its water supply from groundwater. The City has indicated that groundwater wells, pump stations, recharge facilities, water treatment and distribution systems shall be expanded incrementally to mitigate

increased water demands. One of the primary objectives of Fresno's future water supply plans detailed in Fresno's current Urban Water Management Plan (UWMP)¹⁰ is to balance groundwater operations through a host of strategies. Through careful planning, Fresno has designed a comprehensive plan to accomplish this objective by increasing surface water supplies and surface water treatment facilities, intentional recharge, and conservation, thereby reducing groundwater pumping. The City continually monitors impacts of land use changes and development project proposals on water supply facilities by assigning fixed demand allocations to each parcel by land use as currently zoned or proposed to be rezoned.

In 2014, Fresno updated its Metropolitan Water Resources Management Plan designed to ensure the Fresno metro area has a reliable water supply through 2025. The plan implements a conjunctive use program, combining groundwater, treated surface water, artificial recharge and an enhanced water conservation program. In the near future, groundwater will continue to be an important part of the City's supply but will not be relied upon as heavily as has historically been the case. The City is planning to rely on expanding their delivery and treatment of surface water supplies and groundwater recharge activities.

The General Plan requires the City to maintain a comprehensive conservation program to help reduce per capita water usage and includes conservation programs and regulations such as landscaping standards for drought tolerance, irrigation control devices, leak detection and retrofits, water audits, public education and implementation of US Bureau of Reclamation Best Management Practices for water conservation to maintain surface water entitlements. The proposed project would comply with all applicable water conservation programs and regulations required by the City's General Plan.

The proposed project would also be consistent with water management strategies from both the Urban Water Management Plan and the Metropolitan Water Resources Management Plan. Furthermore, the Project Applicant would be required to comply with water management requirements and recommendations of the City of Fresno Department of Public Utilities, which would reduce the project impacts to groundwater recharge to less than significant..

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

i. Result in substantial erosion or siltation on- or off-site?

10 City of Fresno. 2021. 2020 Urban Water Management Plan - Final. Available online at: https://www.fresno.gov/publicutilities/wp-content/uploads/sites/16/2021/07/Fresno-2020-UWMP_Final_2021-07-21.pdf (accessed _March 10, 2023_)

During construction, excavated soil would be exposed and disturbed, drainage patterns would be temporarily altered, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. As discussed previously, the Construction General Permit requires preparation of a SWPPP to identify construction BMPs to be implemented as part of the project to reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation. With compliance with the requirements in the Construction General Permit and implementation of the construction BMPs, and with compliance with the City's Municipal Code, construction impacts related to on- or off-site erosion or siltation would be less than significant.

The project would increase the amount of impervious surface, which would increase the volume of runoff during a storm, and which can more effectively transport sediments to receiving waters. At project completion, much of the project site would be impervious surface area and not prone to on-site erosion or siltation because no exposed soil would be present in these areas. The remaining portion of the site would consist of pervious surface area, which would contain landscaping that would minimize on-site erosion and siltation by stabilizing the soil. Additionally, the project applicant would be required to establish and maintain existing drainage patterns. Therefore, the proposed project would not alter the existing drainage pattern of the site or increase the rate or amount of surface runoff in a manner that would result in an impact related to substantial erosion or siltation on- or off-site.

Construction of the proposed project would result in grading on the site that would expose native soils that could be subject to the effects associated with wind and water erosion unless adequate measures are taken to limit the transport of soils in surface water from the site to downstream locations

Stormwater collection and disposal, and flood control for the City of Fresno, City of Clovis, and the unincorporated areas within the City of Fresno's sphere of influence are provided by the FMFCD. There are existing FMFCD underground storm drainage facilities at Minnewawa and Laurite to the west. The existing FMFCD underground storm drainage facilities collect and discharge stormwater runoff to Basin "BG", located at the northwest corner (NWC) of Minnewawa and Annadale Avenues. When development permits are issued, the project site would be required to pay FMFCD drainage fees pursuant to the Drainage Fee Ordinance

As required by the General Plan, a SWPPP would be developed prior to any ground disturbance at the project site and would include BMPs to reduce erosion and surface water contamination during construction of the proposed project. Additionally, compliance with the City's grading plan check process, the FMFCD

Storm Drainage and Flood Control Master Plan (SDFCMP), and stipulations of the NPDES Construction General Permit would ensure that potential impacts related to erosion and saltation on- and off-site would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

During construction, soil would be disturbed and compacted, and drainage patterns would be temporarily altered, which can increase the volume and velocity of stormwater runoff and increase the potential for localized flooding compared to existing conditions. As discussed above, the Construction General Permit requires the preparation of a SWPPP and implementation of construction BMPs to control and direct surface runoff onsite. With adherence to the Construction General Permit, construction impacts related to altering the existing drainage pattern of the site or area or increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite would be less than significant.

While the project would permanently increase the impervious surface area, FMFCD would provide flood control and urban storm water services to the project site. Stormwater from the project site would utilize the existing roadway improvements, curb, and gutters to reach the existing FMFCD underground storm drainage facilities at Minnewawa and Laurite to the west. The existing FMFCD underground storm drainage facilities collect and discharge stormwater runoff top Basin "BG", located the northwest corner (NWC) of Minnewawa and Annadale Avenues. As such, the proposed project would maintain the overall on-site drainage patterns and continue to direct surface water to the adjacent roadways that flow into the existing storm drains. Prior to the issuance of building permits, the applicant would be required to provide a stormwater improvement plan to the City to ensure that the stormwater system would be capable of handling a 2-year storm and that the drainage facilities conform to City requirements. Therefore, the project would not alter the existing drainage pattern of the site or area or increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

Ground-disturbing activities related to project construction, such as grading, excavation, placing fill, and trenching, could change existing surface drainage patterns and increase the potential for flooding, particularly during storm events. Regulatory mechanisms in place that would reduce the effects of construction activities on drainage patterns that would result in flooding on or off the construction site include compliance with the City of Fresno grading plan check process, the SDFCMP, and the NPDES Construction General Permit. Compliance with these required regulations would reduce project construction impacts on grading patterns and flooding on and off of the construction site to less-than-

significant levels.

- iii. **Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

Construction. The proposed project would result in an increase in impervious surfaces given that the project site would be mostly built out aside from planting areas located in the parking lot and the perimeter of the project site. However, compliance with pre-existing regulatory requirements, including compliance with the Construction General Permit and implementation of a SWPPP, would reduce or eliminate the potential for project construction to cause substantial additional polluted runoff or runoff in excess of existing or planned stormwater drainage systems. Therefore, construction would not result in additional sources of polluted runoff to be discharged to the storm drain system and impacts would be less than significant.

Operations. As discussed above, the proposed project would result in an increase in impervious surfaces; however, FMFCD would provide flood control and urban storm water services to the project site. Stormwater from the project site would utilize the existing roadway improvements, curb, gutters to reach the existing FMFCD underground storm drainage facilities at Minnewawa and Laurite to the west. The existing FMFCD underground storm drainage facilities collect and discharge stormwater runoff to Basin “BG”, located at the NWC of Minnewawa and Annadale Avenues. As such, the proposed project would connect to existing drainage facilities and would not be expected to create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Further compliance with existing regulatory requirements, including the MS4, as specified in the Industrial General Permit, would reduce or eliminate the potential for project operations to cause substantial additional polluted runoff or runoff in excess of existing or planned stormwater drainage systems.

Please refer to discussions a) and c) i and ii in this section. The proposed project would increase impervious surfaces at the project site. However, with implementation of a SWPPP, which would require execution of BMPs for controlling pollution sources during project construction, compliance with the FMFCD’s Storm Drainage and Flood Control Master Plan (SDFCMP), and implementation of the NPDES Permit, the proposed project would not exceed capacity of stormwater drainage systems or generate additional sources of polluted runoff. Additionally, the Project Applicant would pay the City a Drainage Fee to address impacts related to increased amount of surface runoff resulting from the proposed project. The impact would be less than significant.

iv. Impede or redirect flood flows?

The proposed project is not located within the 100-year flood hazard area as mapped by the Federal Emergency Management Agency (FEMA). Drainage flows from the project site will be directed to Laurite Avenue. Stormwater from the project site would utilize the existing roadway improvements, curb, gutters to reach the existing FMFCD underground storm drainage facilities at Minnewawa and Laurite to the west.

Title 40 of the Code of Federal Regulations, Part 60 regulations (40 C.F.R. §60), and the floodplain ordinance of the City of Fresno require that placement and flood provision structures within a floodplain not result in a cumulative change in the floodplain water surface that exceeds one foot. In addition, the regulations under 40 C.F.R. §60 do not allow placement of structures within a regulatory floodway unless that placement would not result in any increase in the floodplain water surface elevation, meaning that there is no displacement or redirection of the floodway. The City's floodplain ordinance requires that a registered Civil Engineer in the State of California certify that no displacement of floodwater would result from the flood proofing of a structure within a floodplain or a regulatory floodway. The proposed project is not located within the 100-year flood hazard area as mapped by the Federal Emergency Management Agency (FEMA).¹¹ As a result, the impact would be no impact.

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

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 05019C2130H dated February 18, 2009, the project site is not located in flood zone, tsunami, or seiche zones. Refer to discussion a) in Section IX, Hazards and Hazardous Materials regarding the use of hazardous materials within the project site. As a result, a less-than-significant impact would occur.

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

The project proposes a 17-lot single-family residential subdivision and does not conflict with the implementation of water quality or groundwater management plans.

11 Federal Emergency Management Agency. 2020. FEMA Flood Map Service Center: Search By Address. Available online at: <https://msc.fema.gov/portal/search?AddressQuery#searchresultsanchor> (accessed _November 10, 2022_)

Fresno is one of the largest cities in the United States still relying primarily on groundwater for its public water supply. Surface water treatment and distribution has been implemented in the northeastern part of the City, but the city is still subject to an EPA Sole Source Aquifer designation. While the aquifer underlying Fresno typically exceeds a depth of 300 feet and provides sufficient capacity for adequate quantities of safe drinking water to the metropolitan area well into the twenty-first century, groundwater degradation, increasingly stringent water quality regulations, and an historic trend of high consumptive use of water on a per capita basis (some 250 gallons per day per capita), have resulted in a general decline in aquifer levels, increased cost to provide potable water, and localized water supply limitations.

Fresno has attempted to address these issues through metering and revisions to the City's Urban Water Management Plan (UWMP). The Fresno Metropolitan Water Resource Management Plan, which has been adopted and the accompanying Final EIR (SCH #95022029) certified, is also under revision. The purpose of these management plans is to provide safe, adequate, and dependable water supplies in order to meet the future needs of the metropolitan area in an economical manner; protect groundwater quality from further degradation and overdraft; and, provide a plan of reasonably implementable measures and facilities. City water wells, pump stations, recharge facilities, water treatment and distribution systems have been expanded incrementally to mitigate increased water demands and respond to groundwater quality challenges. In response to the need for a comprehensive long-range water supply and distribution strategy, the Fresno General Plan recognizes the Kings Basin's Integrated Regional Water Management Plan, Fresno-Area Regional Groundwater Management Plan, and City of Fresno Metropolitan Water Resource Management Plan and cites the findings of the City of Fresno UWMP. The purpose of these management plans is to provide safe, adequate, and dependable water supplies to meet the future needs of the Kings Basin regions and the Fresno-Clovis metropolitan area in an economical manner; protect groundwater quality from further degradation and overdraft; and, provide a plan of reasonably implementable measures and facilities.

The City has indicated that groundwater wells, pump stations, recharge facilities, water treatment and distribution systems shall be expanded incrementally to mitigate increased water demands. One of the primary objectives of Fresno's future water supply plans detailed in Fresno's current UWMP is to balance groundwater operations through a host of strategies. Through careful planning, Fresno has designed a comprehensive plan to accomplish this objective by increasing surface water supplies and surface water treatment facilities, intentional recharge, and conservation, thereby reducing groundwater pumping. The City continually monitors impacts of land use changes and development project proposals on water supply facilities by assigning fixed demand allocations to each parcel by land use as currently zoned or proposed to be rezoned. Until 2004, groundwater was the sole source of water for the City. In

June 2004, a \$32 million Surface Water Treatment Facility (“SWTF”) began providing Fresno with water treated to drinking water standards to meet demands anticipated by the growth implicit in the 2025 Fresno General Plan. Surface water is used to replace lost groundwater through Fresno’s artificial recharge program at the City-owned Leaky Acres and smaller facilities in Southeast Fresno. Fresno holds entitlements to surface water from Millerton Lake and Pine Flat Reservoir. In 2006, Fresno renewed its contract with the United States Bureau of Reclamation, through the year 2045, which entitles the City to 60,000 acre-feet per year of Class 1 water. This water supply has further increased the reliability of Fresno’s water supply.

Also, in 2006, Fresno updated its Metropolitan Water Resources Management Plan designed to ensure the Fresno metro area has a reliable water supply through 2050. The plan implements a conjunctive use program, combining groundwater, treated surface water, artificial recharge and an enhanced water conservation program. In the near future, groundwater will continue to be an important part of the City’s supply but will not be relied upon as heavily as has historically been the case. The City is planning to rely on expanding their delivery and treatment of surface water supplies and groundwater recharge activities.

In addition, the General Plan policies require the City to maintain a comprehensive conservation program to help reduce per capita water usage, and includes conservation programs such as landscaping standards for drought tolerance, irrigation control devices, leak detection and retrofits, water audits, public education and implementing US Bureau of Reclamation Best Management Practices for water conservation to maintain surface water entitlements.

Implementation of the Fresno General Plan policies, the Kings Basin Integrated Regional Water Management Plan, City of Fresno UWMP, Fresno-Area Regional Groundwater Management Plan, and City of Fresno Metropolitan Water Resource Management Plan and the applicable mitigation measures of approved environmental review documents will address the issues of providing an adequate, reliable, and sustainable water supply for the project’s urban domestic and public safety consumptive purposes. The recently adopted 2015 UWMP analyzed the Fresno General Plans land use capacity.

The City is located within the Kings Sub-basin, which is part of the larger San Joaquin Valley Groundwater Basin. The planning documents regarding water resources for the City include the North Kings Groundwater Sustainability Act (GSA) Groundwater Management Plan, the City of Fresno Urban Water Management Plan, and City of Fresno Metropolitan Water Resources Management Plan. The project would be required to adhere to NPDES drainage control requirements during construction and operation as well as to FMFCD drainage control requirements. As a result, the project

would not conflict with any applicable water quality control plan or groundwater management plan, and the impact would be less than significant.

Mitigation Measures

There are no mitigation measures relative to Hydrology and Water Quality impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

DISCUSSION

a) Physically divide an established community?

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may constrain travel from one side of the community to another; similarly, such construction may also impair travel to areas outside of the community.

The proposed project would develop the currently vacant and undeveloped project site into 17 single family residential lots. The proposed project site is currently vacant, and is surrounded by existing residential land uses. The proposed project would include construction of single family homes, roadways, sidewalks, sewer, water, and associated utilities. These improvements would not affect connectivity and would not divide an established community. Therefore, the proposed project would have no impact.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project site is currently zoned RS-4 (*Single-Family Residential, Medium Low Density*), which is intended to provide for single family residential lots. The proposed zoning is RS-5 (*Single-Family Residential, Medium Density*) and the proposed land use is Medium Density Residential intended for smaller lots and higher density single family residential. The proposed RS-5 zone district, is similar to the surrounding area.

The project would require a change to the General Plan land use designation and zoning of the project site. The Project Applicant for General Plan Amendment and Rezone application must comply with all of the City's associated requirements and fees. The impact of this land use change would be less than significant with implementation of the City's applicable requirements.

Mitigation Measures

There are no mitigation measures relative to Land Use Planning impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

DISCUSSION

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The principal area for mineral resources in the City of Fresno is located along the San Joaquin River Corridor. The California Department of Mines and Geology classifies lands along the San Joaquin River Corridor as Mineral Resource Zones (MRZ) 1, MRZ-2, and MRZ-3. The project site is not located in the vicinity of the San Joaquin River, is not a MRZ, and it doesn't contain a MRZ. The City's General Plan includes Objective RC-10 and Policies RC-10-a through RC-10-f to conserve aggregate mineral resources, which would be applied by the proposed project, as applicable. As a result, the proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State. Therefore, the impact would be no impact.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Please refer to the discussion for a). The project site is not located in the vicinity of the San Joaquin River, is not a MRZ, and it doesn't contain a MRZ. The proposed project would not result in the loss of availability of any known locally important mineral resource recovery sites. Therefore, the proposed project would have a no impact.

Mitigation Measures

There are no mitigation measures relative to Mineral Resources impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

DISCUSSION

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

Generally, the three primary sources of substantial noise that affect the City of Fresno and its residents are all transportation-related and consist of local streets and regional highways; airport operations at the Fresno Yosemite International, Fresno-Chandler, and the Sierra Sky Park airports; and railroad operations along the Burlington North Santa Fe (BNSF) Railway and the Union Pacific Railroad lines. Potential noise sources at the subject properties would be roadway noise from the major street (West Alluvial Avenue) east of the project site.

Short-Term (Construction) Noise Impacts. Although there may be some temporary increases in ambient noise levels resulting from the construction of the project, such increases in ambient noise would be temporary in nature. Construction noise would be typical of a construction site, such as tractors, hammering, and other construction related equipment, however, construction activities would only occur during times consistent with the Fresno Municipal Code, typically during daytime hours during the week, and possibly on a limited basis on some weekends. The project would not likely require any type of equipment, such as piledriving; therefore, vibration impacts would be minimal.

The immediate vicinity consists of primarily residential users to the north, south, west and east. The surrounding residential land uses, have similar noise level requirements during the day. Although proposed development will create additional activity in the

area, the 17-lot residential subdivision will be required to comply with all noise policies from the Fresno General Plan, the noise provisions in the Citywide Development Code, and the noise ordinance of the FMC.

Project construction would result in short-term noise impacts on nearby sensitive receptors. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from one day to several days depending on the phase (e.g., demolition, land clearing, grading, excavation, erection) of construction. Noise produced by construction equipment such as earthmovers, material handlers, and portable generators can reach high levels. Generally, the grading phase of construction involves the most equipment and generates the highest noise levels, although noise ranges are usually similar across all construction phases. Typical noise levels generated by individual pieces of construction equipment generally range from approximately 77 dBA to 90 dBA Lmax at 50 feet. Depending on the equipment required and duration of use, average-hourly noise levels associated with construction activity typically ranges from roughly 65 to 90 dBA Leq at 50 feet.

Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The closest sensitive receptors to the proposed project include existing residential land uses to the west of the project site and located approximately 18' west.

Chapter 10, Article 1 (Noise Regulations), of the Fresno Municipal Code establishes excessive noise guidelines and exemptions. Section 10-109 states that construction noise is exempted from City noise regulations provided such work takes place between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday.

Thus, although development activities associated with the proposed project could potentially result in a temporary or periodic increase in ambient noise levels in the project vicinity, construction activity would be exempt from City of Fresno noise regulations, as long as such activity is conducted pursuant to an applicable construction permit and occurs between 7:00 a.m. and 10:00 p.m., excluding Sunday. Therefore, short-term construction impacts associated with the exposure of persons to or the generation of noise levels in excess of standards established in the General Plan or noise ordinance or applicable standards of other agencies would be less than significant.

Operational Noise Impacts. Motor vehicles with their distinctive noise characteristics are the dominant noise source in the project vicinity. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars

and trucks), average traffic speed, and distance from the observer. Implementation of the proposed project would result in new daily trips on local roadways in the project site vicinity. A characteristic of sound is that a doubling of a noise source is required in order to result in a perceptible (3 dBA or greater) increase in the resulting noise level. As discussed below in Section XVII, Transportation, the proposed project would generate approximately 160 daily trips. The project daily trips would not result in a doubling of traffic volumes along any roadway segment in the project vicinity and, therefore, would not result in a perceptible increase in traffic noise levels at receptors in the project vicinity.

The City of Fresno Noise Element sets 65 dB DNL or less as the acceptability criterion within outdoor activity areas of noise-sensitive land uses. Since the development consists of single-family homes, outdoor activity areas are assumed to be located within individual backyards. The nearest major road is Clovis Avenue, which is designated as an Arterial. The distance from the center of Clovis Avenue to the backyard of the nearest proposed home is 380 feet. Therefore the noise exposure from Clovis Avenue traffic will be less than 65 dBA at 380 feet.

Additionally, development of the project site would increase activity at the site. The proposed 17 residential homes would generate approximately 160 daily trips. The City's General Plan Policy NS-1-a through Policy NS-1-p provide noise mitigation recommendations that would be implemented by the proposed project. With implementation of General Plan policies, operation of the proposed project would not substantially increase noise levels over existing conditions, and the impact would be less than significant.

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

During construction there may be temporary construction noises from heavy equipment, tools, and construction activities. However, the construction activities will comply with City noise ordinance section 10-109.(a), shall occur Monday thru Saturday from 7:00 am to 10:00 pm. No construction activities shall occur on Sundays. Heavy Construction activities associated with the proposed project, which consist heavy equipment used mainly for grading, excavations, and compaction, are not expected to result in excessive groundborne vibration or groundborne noise levels. No vibratory compaction or deep compaction equipment, will be used during construction. The proposed single family residential uses will not create any groundborne vibration or groundborne noise levels. No permanent noise sources would be located within the project site that would expose persons to excessive groundborne vibration or noise levels. Therefore, the proposed project would not permanently expose persons within or around the project site to excessive groundborne vibration or noise and the impact would be less than significant.

- c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The nearest medical center helipads (HP) to the project site include Community Regional Medical Center located approximately 4.6 miles west of the project site. The nearest airports include the Fresno Yosemite International Airport, located approximately 3.5 miles north of the project site, Fresno Chandler Executive Airport, located approximately 6.3 miles west of the project site, and the Sierra Sky Airport, located approximately 12.8 miles northwest of the project site.

Each of these airports is considered under the Fresno County Airport Land Use Compatibility Plan (ALUCP)¹², which guides local jurisdictions in determining appropriate compatible land uses with detailed findings and policies. The City of Fresno General Plan, other City land use plans, and all City land use decisions must be compatible with the adopted ALUCP for Fresno County. The ALUCP includes CNEL noise contours based on projected airport and aircraft operations. The project site is not within 2 miles of any public or private airstrip or helipad. Therefore, the proposed project would not result in the exposure of sensitive receptors to the excessive noise levels from aircraft noise sources. The impact would be no impact.

Mitigation Measures

There are no mitigation measures relative to Noise impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				

12 Fresno Council of Governments. 2018. Fresno County Airport Land Use Compatibility Plan. Amended December 2021. Available online at: <https://www.fresnocog.org/project/airport-land-use-commission-fresno-county/> (accessed March 2023)

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

DISCUSSION

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

The project site is currently zoned RS-4 (Single-Family Residential, Medium Low Density), which is intended to provide a for single family residential lots with minimum 5,000 sf lots. The proposed land use is Medium Density Residential. The RS-5 zone district is intended for smaller lot and higher density single family residential. The proposed RS-5 zoning is similar to the surrounding area. The project's proposed lot sizes are larger than 5,200 sf, which exceeds and is similar to RS-4 standards. The project, if built in conformance to RS-4 density requirements, would have produced 12 lots, that have an average lot width of 77 feet wide, and average 7,400 sf lots. The project proposes 17 lots, thereby increasing the area by 5 additional homes. Therefore, the increase of 5 additional single family homes would not be considered substantial.

The proposed project would not result in direct population growth. Therefore, the proposed project would not directly or indirectly induce unplanned population growth and this impact would be less-than-significant.

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

The project site is currently vacant and proposes to develop 17 single family residential lots. The proposed project would not necessitate the displacement or removal of existing housing. Therefore, the impact would be no impact.

Mitigation Measures

There are no mitigation measures relative to Population and Housing impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?				X
Schools?			X	
Parks?			X	
Other public facilities?			X	

DISCUSSION

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

i. Fire protection?

The City of Fresno Fire Department (FFD) would provide fire protection services to the proposed project. There are 20 FFD fire stations in Fresno, with the closest fire station, Fire Station 15, located approximately 1.3 miles from the project site. Planned growth under the General Plan would increase calls for fire protection service in the City. The proposed use of the project site is consistent with the site's General Plan designation and does not represent unplanned growth given that the project site would be developed consistent with its land use and zoning designations. The project could result in an incremental increase in the demand for fire protection services because of additional residents to the project site. However, the proposed project would be required to pay a Fire Facilities Fee and a Development Impact Fee pursuant to Chapter 12, Article 4.9 of the City's Code of Ordinances to account for the potential impacts to fire services.

This project is within the primary service area of Fire Station 15 and there are no fire development restrictions related to fire access on the project. Each lot is subject to the city wide Fire Service Delivery Impact fee. There are existing fire hydrants on E. Laurite and no additional hydrants are needed. The existing hydrant in front of proposed lot 10 is to be relocated outside the proposed driveway approach. There are existing water and sewer mains in E. Laurite. There are 8 existing one inch water services stubbed to the proposed lots 1-9 frontage and which are indicated on the tract map extending from proposed lots 1-9. These were apparently for a previous tract map that was never finalized. There is an existing 1" water service indicated on the Laurite frontage at the east parcel line of lot 4 and an additional 1 inch service will be needed to serve lot 5. Lots 10-17 will need to have new 1" water services installed to serve these lots.

The FFD would continue providing services to the project site and would not require additional firefighters to serve the proposed project. The construction of a new or expanded fire station would not be required. The proposed project would not result in a significant impact on the physical environment due to the incremental increase in demand for fire protection and life safety services. The incremental increase in demand for services would not adversely affect existing responses times to the site or within the City. Therefore, construction and operation of the proposed project would have a less-than-significant impact.

ii. Police protection?

The City of Fresno Police Department (FPD) provides police protection to the project site. The Police Department Patrol Division is divided into five policing districts with the nearest station is the Southeast District, located at 224 S. Argyle Ave, being approximately 2 miles northeast from the project site. Planned growth

under the General Plan would increase calls for police protection service in the City. The proposed use of the project site is consistent with the site's General Plan designation and does not represent unplanned growth given that the project site would be developed consistent with its land use and zoning designation.

The project could result in an incremental increase in the demand for police protection services. However, the proposed project would be required to pay a Police Impact Fee and a Development Impact Fee pursuant to Chapter 12, Article 4.8 of the City's Code of Ordinances to account for the potential impacts to police protection services.

The FPD would continue providing services to the project site and would not require additional personnel to serve the proposed project. The construction of new or expanded police facilities would not be required. Therefore, the proposed project would not result in a substantial adverse impact associated with the provision of additional police facilities or services and impacts to police protection would represent no impact.

iii. Schools?

Any urban residential development occurring as a result of the proposed project would result in an impact on the Sanger Unified School District's student capacity. According to the "Development Fee justification Study", prepared by Odell Planning & Research, Inc, dated May 2022, the TK through 12th grade student generation rate is 0.679 for single family dwelling units. Therefore, the proposed 17 single family residential homes would add approximately 11.5 new students. The developer would be required to pay appropriate school fees pursuant to Chapter 12, Article 8 of the City's Code of Ordinances at time of building permits to address potential impacts. Furthermore, the Fresno General Plan (adopted in 2014) anticipated the construction of a new high school and middle school within Sanger Unified School District. Since adoption of the General Plan, Sanger West High School opened October 12, 2021 with the remainder of the campus (including the middle school) under phased construction. Considering the minimal number of generated students from the project (12), the opening of the high school and near future opening of the middle school, the project's impacts would be less than significant.

iv. Parks?

On December 14, 2017, the City of Fresno adopted the Fresno Parks Master Plan (PMP) which was an update to the previously adopted 1989 Parks Master Plan. In comparison to this chapter of the General Plan, the Fresno Parks Master provides

updated data and system overview, revised park classifications, additional goals, recommendations and strategies, and new design guidelines that support and enhance the objectives and policies found in this chapter. As a result, policy POSS-1-a has been revised and the PMP park classifications are to take precedence over the park classifications in this chapter which means that the goal of 2 acres/1,000 residences is to be achieved through Regional Parks, Open Space/Natural Areas, and Special Use Parks/Facilities.

In 1976 the City of Fresno adopted the Urban Growth Management (UGM) policy that helped establish a park impact development fee, which the funds are used to buildout the park facilities identified in the park master plan. Additionally, other agencies and entities, such as school districts, the FMFCD, the San Joaquin River and Parkway Conservation Trust, and the San Joaquin River Conservancy, have made significant contributions to the provision of recreational and natural opens space areas.

The 2035 General Plan identifies 5 levels of parks and trails.

1. Pocket Park. A park up to 0.5 to 2.0 acres in size, which is intended to serve the needs of a smaller, specific neighborhood located within a half-mile radius of the pocket park.
2. Neighborhood Park. A park of more than 2 and up to 10 acres in size, which provides basic recreational activities for neighborhoods located generally within a one-mile radius.
3. Community Park. A park of more than 10 and up to 40 acres in size (typically at least 20 acres),
4. Regional Park. A large park of more than 40 acres in size, which is meant to serve a large number of residents across a broad area of the city, or around 100,000 residents.
5. Trail/Greenway/Parkway. A network of linear open spaces of varying size, typically intended to accommodate walking and bicycling opportunities for leisure, exercise and commuting purposes.

The City's 2035 General Plan standard identified at least 3.0 acres of parkland to be provided per 1,000 residents (comprised of 0.75 acres neighborhood parks, 0.25 acres community parks, 2.0 acres regional parks). The UGM park impact development fee is based on this formula.

There is an existing pocket park located 0.14 miles southeast of the project site. The Fancher Creek Trail is located 0.25 miles east of the project site.

The project could result in an incremental increase in the demand for parks as a result of additional residents at the project site that might make use of nearby

facilities. The developer would be required to pay applicable park facilities fees, pursuant to Chapter 12, Article 4.7 of the City's Code of Ordinances, to mitigate potential impacts of the proposed project on park facilities. Therefore, impacts to parks would be less than significant.

v. Other public facilities?

Development of the proposed project could also increase demand for other public services, including libraries, community centers, and public health care facilities. However, the proposed project would not result in significant population growth that would increase the demand for these facilities, such that new facilities would be needed to maintain service standards, as these facilities are not currently overused and have capacity to serve new demand. Therefore, impacts to other public facilities would be less than significant.

Mitigation Measures

There are no mitigation measures relative to Public Services impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION - Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

DISCUSSION

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

The proposed project does not include on-site open space. There is an existing pocket park located 0.14 miles to the east of the project site. The Fancher Creek Trail is located 0.25 miles east of the project site.

The proposed project may increase the demand of recreational facilities in the vicinity of the project site. However, the developer would be required to pay park impact fees pursuant to Chapter 12, Article 4.7 of the City's Code of Ordinances at the time building permits are obtained to account for potential impacts to recreational facilities. The impact fees would serve to offset project impact on existing recreational facilities. Therefore, the impact would be less than significant.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The proposed 17 lot residential subdivision project would generate additional demand for parks and recreation. The demands generated by the project is within planned services levels of the City of Fresno Parks and Community Services Department. The project will pay its fair share of the UGM park impact development fee, Therefore, impacts to parks would be less than significant.

There is an existing pocket park located 0.14 miles east of the project site. The Fancher Creek Trail is located 0.25 miles east of the project site. The demand for use of these parks and trails will not be increased by approval of the plan amendment/rezone, nor the eventual development of the proposed 17 lot residential subdivision.

The proposed project would consist of 17 residential homes. The proposed project would not include or require the construction or expansion of existing public recreational facilities. Therefore, the impact would be less than significant.

Mitigation Measures

There are no mitigation measures relative to Recreation impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				X
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

DISCUSSION

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

The subject properties are located northwest of the South Clovis Avenue and East Jensen Avenue intersection in the City of Fresno. In the Fresno General Plan Circulation Element, East Jensen Avenue is designated as a super arterial roadway. South Clovis Avenue is designated as an arterial street with the purpose of moving traffic within and between neighborhoods and to and from freeways and expressways. Arterials typically have four to six lanes with median island separation. The proposed project will be required to construct all necessary street frontage improvements along Laurite Avenue and DeWitt Ave, such as drive approaches, sidewalks, including curb, gutter and pavement to City Standards.

The subject site is located within Traffic Impact Zone III (TIZ-III). TIZ-III represents areas near or outside the city limits but within the sphere of influence. The proposed 17 lot single family subdivision will not adversely impact the existing and projected roadway and circulation system and that the project would generate less than 100

peak hour trips, therefore a Traffic Impact Study would not be required for the proposed 17 lot subdivision proposal. Therefore, the project is anticipated to result in no impacts.

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

Senate Bill (SB) 743 requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of Level of Service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto our roads, the project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, “a project’s effect on automobile delay shall not constitute a significant environmental impact.” Therefore, LOS measures of impacts on traffic facilities is no longer a relevant CEQA threshold for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states that “[a] lead agency has discretion to choose the most appropriate methodology to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project’s vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.”

On June 25, 2020, the City of Fresno adopted CEQA Guidelines for Vehicle Miles Traveled Thresholds pursuant to Senate Bill 743 to be effective of July 1, 2020. The thresholds described therein are referred to herein as the City of Fresno VMT Thresholds. The City of Fresno VMT Thresholds document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3 and 15064.7. The December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) published by the Governor’s Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Fresno VMT Thresholds.

The City of Fresno VMT Thresholds Section 3.0 regarding Project Screening discusses a variety of projects that may be screened out of a VMT analysis including specific development and transportation projects. For development projects, conditions may exist that would presume that a development project has a less than

significant impact. These may be size, location, proximity to transit, or trip-making potential. For transportation projects, the primary attribute to consider with transportation projects is the potential to increase vehicle travel, sometimes referred to as “induced travel.”

The City’s VMT Guidelines establishes project that have less than 500 average daily trips, will have a less than significant impact, and is not required to provide further VMT analysis. According to the Institute of Transportation Engineers (ITE) Trip Generation Manual (11 Edition), the proposed 17 lot residential project will generate 160 average daily trips.

The City of Fresno VMT Thresholds Section 3.1 regarding Development Projects states that if a project constitutes a General Plan Amendment or a Rezone, none of the screening criteria may apply, and that the City must evaluate such projects on a case-by-case basis to determine whether a VMT analysis would be required. The proposed project includes both a General Plan Amendment and a Rezone.

In this case, the property is currently an infill development that is surrounding by single-family residential neighborhoods to the north, east and west that have a slightly higher density than the proposed subdivision project. An existing Darrell’s Mini Storage facility is located immediately south of the subject property. Developing 17 single-family lots, which is a density slightly lower than the existing surrounding single-family neighborhoods, is the most appropriate use for this property based on the immediate surrounding single-family development. The VMT generated by the project is de minimis in relation to the VMT of the surrounding developments. Therefore, given the specific facts of this project discussed above, and its status as infill development, it is reasonable to apply screening criteria to this project as a means of determining the potential for a significant impact.

One of the screening measures of the City of Fresno’s VMT Thresholds is if a project has less than 500 Average Daily Trips (ADT), which is calculated by the ITE Trip Generation – 11th Edition. The project proposes 17 single-family residences. Per the ITE Trip Generation – 11th Edition, 17 single-family residences equates to a total of 160 ADT, which is below the maximum 500 ADT screening threshold. In this case, although a Plan Amendment-Rezone is proposed, the combination of the existing surrounding development and total ADT produced by the project is significantly lower than the minimum threshold resulting in a less than significant impact.

In conclusion, the Project will result in a less than significant VMT impact and is consistent with CEQA Guidelines Section 15064.3(b).

- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm**

equipment)?

The proposed project would include development of 17 single family residential homes. Vehicular access to each home would be provided with individual driveways with direct access onto Laurite Avenue. The project site and surrounding local roads, and circulation pattern allows for multiple access points to Minnewawa Avenue, Church Avenue and Clovis Avenue.

The majority of traffic flow occurs on East Laurite Avenue. Project improvements to East Laurite Avenue include construction of sidewalk to connect the proposed residential homes to the existing roadways, to ensure connectivity of pedestrian and alternative transportation infrastructure in the study area. The proposed project would not include any sharp curves or other roadway design elements that would create dangerous conditions. In addition, the project design features would be required to comply with standards set by the City's General Plan and City Engineer. In addition, the proposed project would also be required to submit plans to the FFD for review and approval prior to the issuance of building permits to ensure there are no substantial hazards associated with the project design. The project would not alter pedestrian or vehicle access to the project site or introduce incompatible design features or equipment that would substantially increase the risk of hazards. Therefore, the project would not substantially increase hazards due to a design feature, and the impact would be no impact.

d) Result in inadequate emergency access?

The proposed project would include construction of single family homes, roadways, sidewalks, sewer, water, and associated utilities. Vehicular access to each home would be provided with individual driveways with direct access onto Laurite Avenue. The project site and surrounding local roads, and circulation pattern allows for multiple access points to Minnewawa Avenue, Church Avenue and Clovis Avenue.

Emergency vehicles would have access to the project site via the existing roadway network. Further, the proposed project's site plan would be subject to review and approval by the FFD to ensure the project includes adequate emergency access. In addition, as discussed in Section IX, Hazards and Hazardous Materials, project implementation would not physically interfere with emergency evacuation or the FFD access to and from the project site. Emergency vehicles would have access to the project site via Laurite Ave, and emergency access would not be modified as a result of the proposed project. Furthermore, roads adjacent to the project site would not require closure during project construction. Therefore, the impact would be no impact.

Mitigation Measures

There are no mitigation measures relative to Transportation impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRIBAL CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:			X	
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k), or,			X	
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC section 5024.1. In applying the criteria set forth in subdivision (c) of PRC section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

DISCUSSION

- a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in**

terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**

Based on the Cultural and Historical Resources Assessment prepared for the proposed project by Peak & Associates, Inc. dated October 27, 2021, refer to Appendix A, there are no known Native American resources in the project site that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

As previously discussed in Section V, Cultural Resources, the project site does not contain historical resources listed or eligible for listing in the California Register of Historical Resources, or in any local listing for Fresno County or the City of Fresno. Furthermore, the area surrounding the project site does not contain any listed historical resources. As a result, a less-than-significant impact would occur.

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

The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the CEQA Guidelines. Pursuant to PRC Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and supported by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)).

Additional information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California

Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Pursuant to Senate Bill 18 (SB 18), Native American tribes traditionally and culturally affiliated with the project area were invited to consult regarding the project based on a list of contacts provided by the Native American Heritage Commission (NAHC).

Assembly Bill (AB) 52, which became law January 1, 2015, requires that, as part of the CEQA review process, public agencies provide early notice of a project to California Native American Tribes to allow for consultation between the tribe and the public agency. The purpose of AB 52 is to provide the opportunity for public agencies and tribes to consult and consider potential impacts to Tribal Cultural Resources (TCR's), as defined by the Public Resources Code (PRC) Section 2107(a). Under AB 52, public agencies shall reach out to California Native American Tribes who have requested to be notified of projects in areas within or which may have been affiliated with their tribal geographic range. Pursuant to Assembly Bill 52 (AB 52), the Table Mountain Rancheria Tribe and the Dumna Wo Wah Tribe were invited to consult. A certified letter was mailed to the above-mentioned tribes on March 1, 2023. The 90-day comment period ended on May 31, 2023. Neither tribe requested consultation.

Based on the Cultural and Historical Resources Assessment prepared for the proposed project by Peak & Associates, Inc., there are no known Native American resources in the project site that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). Additionally, no specific tribal cultural resources were identified in the project site as a result of Native American consultation conducted for the project per AB 52 and SB 18.

As such, the project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

If any artifacts are inadvertently discovered during ground-disturbing activities, existing federal, State, and local laws and regulations would require construction activities to cease until such artifacts are properly examined and determined not to be of significance by a qualified cultural resource professional. In addition, Mitigation Measures CUL-1.1, CUL-2 and CUL-3 included above in Section V,

Cultural Resources, would apply to the project and would reduce potential impacts to unknown archaeological historical resources to less than significant with mitigation incorporated.

Mitigation Measures

1. The proposed project shall implement and incorporate the tribal cultural resource related mitigation measures as identified in the attached Mitigation Measure Monitoring Program dated.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effect?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

DISCUSSION

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

As identified in the Project Description, utilities required to serve the proposed project would include water, sanitary sewer, storm water drainage, electricity, natural gas, and telecommunications infrastructure.

Potable Water. The proposed project would require connection to the existing 8-inch water main located along East Laurite Avenue.

Short-term demand for water may occur during excavation, grading, and construction activities on site. Construction activities would require water primarily for dust mitigation purposes. Water from the existing potable water lines in the vicinity of the project site would be used. Overall, short-term construction activities would require minimal water and are not expected to have any adverse impacts on the existing water system or available water supplies. The proposed project would not require the construction of new or expanded water conveyance, treatment, or collection facilities with respect to construction activities.

The City of Fresno relies on water supplies from groundwater from the North Kings Subbasin; surface water from Central Valley Project (CVP), through a contract with the United States Bureau of Reclamation (USBR); Kings River water, through a

contract with Fresno Irrigation District (FID); and recycled water. According to the Urban Water Management Plan dated June 2021, the City of Fresno has a groundwater yield of 132,480 AFY, 60,000 AFY of USBR surface water supplies (under normal year conditions), 161,600 AFY of FID diversions, 5,910 AFY of recycled Water, for a combined 329,030 AFY of water supplies.

According to the Urban Water Management Plan dated June 2021, the average water demand per single family residential dwelling unit is 462 AFY. Therefore, the project would increase the City's water demands by 6,468 AFY.

Based on the nature of the proposed project, the project-generated increase in water demand would be minimal and would fall within the City's existing capacity and available supply. As such, the proposed project would not necessitate new or expanded water entitlements, and the City would be able to accommodate the increased demand for potable water. As such, the proposed project would not necessitate new or expanded water entitlements, and the City would be able to accommodate the increased demand for potable water.

Wastewater. Wastewater services would also be provided by the City. No significant increase in wastewater flows is anticipated as a result of construction activities on the project site. Sanitary services during construction would be provided by portable toilet facilities, which transport waste off site for treatment and disposal.

In addition, wastewater generation associated with the proposed project is not anticipated to exceed wastewater treatment requirements or exceed the available capacity to accommodate the increased wastewater flows from the proposed project. The proposed project would not generate a substantial amount of wastewater and would be adequately served by the capacity and the existing wastewater conveyance system. As such, the proposed project would not necessitate new or expanded water entitlements, and the City would be able to accommodate the increased demand for potable water.

The Department of Public Utilities has determined that adequate sanitary sewer and water services would be available to serve the proposed project subject to the payment of any applicable connection charges and/or fees and extension of services in a manner which is compliant with the Department of Public Utilities standards, specifications, and policies.

Stormwater and Drainage Facilities. Impacts to storm drainage facilities have been previously discussed in Section X, Hydrology and Water Quality. FMFCD's existing facilities has the capacity to accommodate the project storm water runoff from the proposed 17 lot residential subdivision. The proposed project does not require construction of new stormwater drainage facilities or the expansion of existing facilities.

Pursuant to Section 4.10, Hydrology, of the General Plan PEIR, the construction such facilities would be required to comply with the City's grading plan check process, the FMFCD Storm Drainage and Flood Control Master Plan (SDFCMP), and requirements of the NPDES General Construction Permit. As such, construction of storm drainage facilities for the proposed project would be consistent with construction and design standards for the City, and the impact would be less than significant.

Electricity, Natural Gas, and Telecommunication Facilities. Electric power, natural gas, and telecommunication facilities would require connections to the project site. However, because the project site is located within an urbanized area with existing facilities located in Laurite Avenue, connection to these facilities would not cause significant environmental effects.

Summary. The proposed project would not require or result in the relocation or construction of new or expanded facilities for water, wastewater treatment, storm drainage, electric power, natural gas, or telecommunications which could cause significant environmental effects. Impacts would be less than significant.

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

As discussed above, the Department of Public Utilities would supply water to the project site. Based on the 2015 Urban Water Management Plan, the water supplies for the City (363,540 Acre Feet (AF)/year) are adequate to accommodate the demand in the City by 2040 (i.e., 228,091 AF/year), and at buildout of the approved General Plan in 2056 (i.e., 254,834 AF/year). The proposed project would be consistent with the General Plan and would therefore be covered by the City's water supply projections. As a result, there would be sufficient water supply for the project, and the impact would be less than significant.

c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project is not expected to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. The City of Fresno owns and operates two wastewater treatment facilities. They are the Fresno/Clovis Regional Wastewater Reclamation Facility and the North Fresno Wastewater Reclamation Facility. The RWRf currently has a capacity of 91.5 million gallons per day (mgd). The North Facility has a capacity of 0.71 mgd. The proposed project is not expected to exceed the capacity of existing wastewater-related services and facilities. Therefore, the impact would be less than significant.

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

Garbage disposed in the City of Fresno is taken to the Cedar Avenue Recycling and Transfer Station. Once trash has been off-loaded at the transfer station, it is sorted, and non-recyclable solid waste is loaded onto large trucks and taken to the American Avenue Landfill located approximately 6 miles southwest of Kerman.

The American Avenue Landfill (i.e., American Avenue Disposal Site 10-AA-0009) has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day.¹³

Other landfills within the County of Fresno include the Clovis Landfill (City of Clovis Landfill 10-AA-0004) with a maximum remaining permitted capacity of 7,740,000 cubic yards, a maximum permitted throughput of 2,000 tons per day, and an estimated closure date of 2047.¹⁴

The California Integrated Waste Management Act (AB 939, Sher, Chapter 1095, Statutes of 1989 as amended [IWMA]) made all California cities, counties, and approved regional solid waste management agencies responsible for enacting plans and implementing programs to divert 25 percent of their solid waste by 1995 and 50 percent by year 2000. Later legislation mandates the 50 percent diversion requirement be achieved every year.

In addition, the California Green Building Standards Code (CALGreen) requires diversion of at least 65% of the construction and demolition waste generated during most “new construction” projects.

Construction and Demolition (C&D) Materials includes the following (asphalt, concrete. Masonry, drywall, insulation, carpet/carpet padding, tile, metals, plastic, wood, glass, cardboard, pallets, and yard trimmings).

The City of Fresno’s C&D recycling program helps the City comply with AB 939, by requiring contractors to submit all recycling and landfill tickets as part of the projects building permit process during construction. Each projects building permits needs to show proof of diverting and recycling 65% of the projects C&D materials. During

¹³ CalRecycle. Available online at: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/352> (accessed _May 31, 2023_)

¹⁴ CalRecycle. Available online at: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/347> (accessed _May 31, 2023_)

construction the project will be required to comply with the City's C&D recycling program.

According to CalRecycle, residential land uses generate approximately 12.23 lbs/household/day. Operation of the proposed project would generate approximately 208 pounds of solid waste per day or about 37.9 tons of solid waste per year. Given the available capacity at the landfills, the additional solid waste generated by the proposed project is not anticipated to cause the facility to exceed its daily permitted capacity. As such, the project would be served by a landfill with sufficient capacity to accommodate the project's waste disposal needs, and impacts associated with the disposition of solid waste would be less than significant.

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

The proposed project would be serviced by the City Department of Utilities solid waste collection. The City of Fresno complies with all state requirements in providing solid waste disposal services. The project would also comply with Cal Green, the City's Construction and Demolition (C&D) Waste Management Guide, and with waste management policies and recommendations from the General Plan and the Greenhouse Gas Reduction Plan Update.¹⁵ The proposed project would dispose of waste in accordance with applicable federal, state, and local recycling, reduction, and waste requirements and policies. Therefore, the proposed project would not conflict with federal, state, and local management and reduction statutes and regulations related to solid waste, and the impact would be less than significant.

Mitigation Measures

There are no mitigation measures relative to Utilities and Service Systems impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X

15 City of Fresno, 2021. Greenhouse Gas Reduction Plan Update. Available online at: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2021/03/Link4AppendixGGHGRPUupdate.pdf> (accessed May 31, 2023_)

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

DISCUSSION

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

Wildland fires occur in geographic areas that contain the types and conditions of vegetation, topography, weather, and structure density susceptible to risks associated with uncontrolled fires that can be started by lightning, improperly managed campfires, cigarettes, sparks from automobiles, and other ignition sources. According to the California Department of Forestry and Fire Protection (CAL FIRE) Very High Fire Hazard Severity Zone (VHFHSZ) Map for Fresno County, the project site is not located within a Very or High Fire Hazard Severity Zone.

The proposed project would result in the construction of 17 single family residential homes and associated infrastructure in an urban area of the City of Fresno. The proposed project would not result in the construction of any elements that may impair emergency access to the site or emergency evacuation in the project area. Emergency vehicles would have access to the project site via E. Laurite Avenue. Furthermore, the proposed project's site plan would be subject to review and approval by the FFD to ensure the project includes adequate emergency access. As a result, project implementation would not physically interfere with evacuation plans or FFD access to and from the project site. Moreover, since the project site is not located in or near a VHFHSZ nor is it located in or near a State Responsibility Area (SRA), potential impacts associated with emergency access described above would not pertain to wildfire and would more likely be associated with an urban fire or other emergency situations.

The proposed project would not interfere with any emergency evacuation routes within the City of Fresno or an adopted emergency response plan. The project site would not require the alteration of any existing roadways. Therefore, the impact would be no impact.

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

The project site is in an urban area and is not located within a Very High Fire Hazard Severity Zone (VHFHSZ).¹⁶ The project site does not possess physical characteristics that would exacerbate wildfire risks. Therefore, the proposed project would not exacerbate wildfire risks and potentially expose project occupants to pollutants from a wildfire. The impact would be no impact.

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

Utility and infrastructure improvements included as part of the project are described in Section XIX, Utilities and in the Project Description. The project site is not located in or near a VHFHSZ nor is it located in or near an SRA. Utility installations would not exacerbate fire risk due to the location of the project site in an urban area outside of a designated fire hazard zone.

16 California Department of Forestry and Fire Protection (CAL FIRE). 2008. Fresno County Very High Fire Hazard Severity Zones in LRA. Available online at: <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/> (accessed _March 10, 2023_)

The project site is located in a developed area of the City of Fresno, and it would not require the installation or maintenance of infrastructure that would increase the risk of fire or result in temporary or ongoing environmental impacts, outside of what is already implemented according to City plans. As a result, no impact would occur.

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

Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips, occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking but can also occur as a result of erosion and downslope runoff caused by rain following a fire. As previously discussed in Section VII, Geology and Soils, the City of Fresno is located within an area that consists of mostly flat topography within the Central Valley. Accordingly, there is no risk of large landslides in the majority of the City. In addition, the project site is generally level and would not expose people or structures to potential substantial adverse effects associated with landslides. As discussed in Section X, Hydrology and Water Quality, the project would not alter the existing drainage pattern of the site or area or increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Further, as stated previously, the project site is not located in or near a VHFHSZ nor is it located in or near a SRA.

The project site is located on a relatively flat area and is not located adjacent to any hills. In general, the potential for land sliding or slope failure in Fresno is very low and the project site would not be susceptible to landslides. The project site is also not located on a flood hazard zone and would not be susceptible to flooding because of post-fire drainage changes. As discussed above, the project is not located within a VHFHSZ. Therefore, the proposed project would not expose people or structures to significant risks, and no impact would occur.

Mitigation Measures

There are no mitigation measures relative to Wildfire impacts.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. MANDATORY FINDINGS OF SIGNIFICANCE				

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

DISCUSSION

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or**

restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Refer to discussions in Section IV, Biological Resources and Section V, Cultural Resources. The project site has no biological, wetlands, or habitat. The project site is highly disturbed and does not support any protected species or plants. Therefore, the proposed project would not: 1) degrade the quality of the environment; 2) substantially reduce the habitat of a fish or wildlife species; 3) cause a fish or wildlife species population to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history. Therefore, this impact would have a no impact.

b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

The proposed project’s impacts would be individually limited and not cumulatively considerable due to the site-specific nature of the potential impacts. The potentially significant impacts that can be reduced to less-than-significant levels with implementation of recommended mitigation measures include the topics of Aesthetics, Cultural Resources, and Geology and Soils. These impacts would primarily be related to construction-period activities, would be temporary in nature, and would not substantially contribute to any potential cumulative impacts associated with these topics.

Implementation of mitigation measures AES-4.1, 4.2, 4.5, AIR-2.1, CUL-1.1, CUL-2, CUL-3, and GEO-6.1 would ensure that the impacts of the project would be below established thresholds of significance. Since the proposed project would not result in any significant project-level impacts, the proposed project would not result in any significant impacts that would combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development. As such, this impact would be less than significant.

For the topic(s) of Agriculture and Forestry Resources, Air Quality, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, Transportation, Utilities and Service Systems, and Wildfire,, the project would have no impacts, less-than-significant impacts, or less-than-significant impacts with mitigations incorporated and therefore, the project would not substantially contribute to any potential cumulative impacts for these topics. All environmental impacts that could occur as a

result of the proposed project would be reduced to a less-than-significant level through the implementation of the mitigation measures recommended in this document.

Implementation of these measures would ensure that the impacts of the project would be below established thresholds of significance and that these impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development. Therefore, this impact would be less than significant.

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

The proposed project's potential to result in environmental effects that could directly or indirectly impacts human beings have been evaluated in this Initial Study. Implementation of mitigation measures AES-4.1, 4.2, 4.5, AIR-2.1, CUL-1.1, CUL-2, CUL-3, and GEO-6.1, would ensure that the impacts of the project would be below established thresholds of significance. Since the proposed project would not result in any significant project-level impacts. With implementation of the recommended mitigation measures, all environmental effects that could adversely affect human beings would be less than significant.

Appendix A
Cultural Study Peak and Associates

Cultural and Historical Resources Assessment

Vesting Tentative Tract Map 6352-Laurite

APNs: 481-348-01, 481-100-14, 481-100-18

2.15 Acres

Introduction

Peak & Associates, Inc. conducted a cultural resource review of a Project Area on the south side of Laurite Avenue in Fresno, California, proposed for use for 17 residential lots. This report summarizes the results of this study for prehistoric and historic period cultural resources.

Study Area

The Project Area, at the southeast corner of the intersection of DeWitt Avenue and Laurite Avenue, lies south of a residential neighborhood. The western portion of the proposed development lies north of an existing neighborhood. The surrounding developments are very recent, dating to the 2000s to 2010s.

The Project Area lies in Section 17, Township 14 South, Range 21 East, mapped on the Malaga 7.5' USGS topographic quadrangle (1964).

Literature Review

A record search for the Project Area and a ¼-mile radius has been conducted through the Southern San Joaquin Valley Information Center of the California Historical Resources Information System (Records Search File No.: 21-380, Appendix 1). The search identified that there have been no previous surveys of the Project Area, and no resources in the Project Area.

Two cultural resource surveys have been conducted within the search radius, at the southern edge of the search area near Jensen Avenue in 2005 and 2011 (FR-02260 and FR-02426). One of these reports recorded a building at 5537 East Jensen Avenue as P-10-006976 (See Appendix 1 for full citations).

The older Malaga USGS topographic map from 1923 has been reviewed, with the map showing no evidence of buildings or historic land use in the past.

Field Study

A field survey has been undertaken by Peak & Associates of the Project Area, using complete coverage with transects no more than 3 meters in width. The land is mostly level, likely from grading for adjacent subdivisions. The entire parcel has been disc-plowed for vegetation control. The visibility of the ground surface is excellent due to recent vegetation clearance and plowing.

The soil is a light brown sandy, silty loam with moderate stone component. The observed stone is mostly small pebbles with some as large as ten centimeters in diameter, consisting mostly of granite and sandstone, with some crypto crystalline silicates. Soil color and components are consistent throughout the survey area.

There is no evidence of either prehistoric or historic period cultural resources.

Conclusions and Recommendations

The Project Area contains no evidence of cultural resources. It is unlikely prehistoric sites could be present as this area lies at some distance from a natural water source.

No historic building has ever existed in the Project Area and the current buildings in the Project Area and neighborhood surrounding the site are less than 45 years old.

Although unlikely, there is always a possibility that a prehistoric or historic site may exist in the Project Area and be obscured by vegetation, siltation or historic activities, leaving no surface evidence. If artifacts, exotic rock, shell or bone are uncovered during the construction, work should stop in that area immediately. A qualified archeologist should be contacted to examine and evaluate the deposit, and determine the need for further measures such as avoidance. Native American groups would be contacted as necessary.

Discovery of Human Remains

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area suspected to overlie adjacent remains until the Fresno County Coroner has determined that the remains are not subject to any provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or their authorized representative, notifies the coroner of the discovery or recognition of the human remains.

If the Fresno County Coroner determines that the remains are not subject to his or her authority and if the County Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC).

After notification, the NAHC will follow the procedures outlines in Public Resources Code Section 5097.98. that include notifications of the most likely descendants (MLDs), and recommendations for the treatment of the remains. The MLDs will have 48 hours after notification by the NAHC to make their recommendations (PRC Section 5097.98).

APPENDIX 1
SSJVIC RECORDS SEARCH



10/22/2021

Robert Gerry
Peak & Associates, Inc.
3941 Park Drive, Ste 30-329
El Dorado Hills, CA 95762

Re: Tract 6352
Records Search File No.: 21-380

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Malaga USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.25 mile radius:

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

Resources within project area:	None
Resources within 0.25 mile radius:	P-10-006979
Reports within project area:	None
Reports within 0.25 mile radius:	FR-02260, 02426

Resource Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed

Resource Digital Database Records: ☐ enclosed ☒ not requested ☐ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed

Report Digital Database Records: ☐ enclosed ☒ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☐ enclosed ☒ not requested ☐ nothing listed

OHP Built Environment Resources Directory: ☐ enclosed ☐ not requested ☒ nothing listed

Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☒ not requested ☐ nothing listed

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

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

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

Local Inventories: Not available at SSJVIC

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

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

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

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

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

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

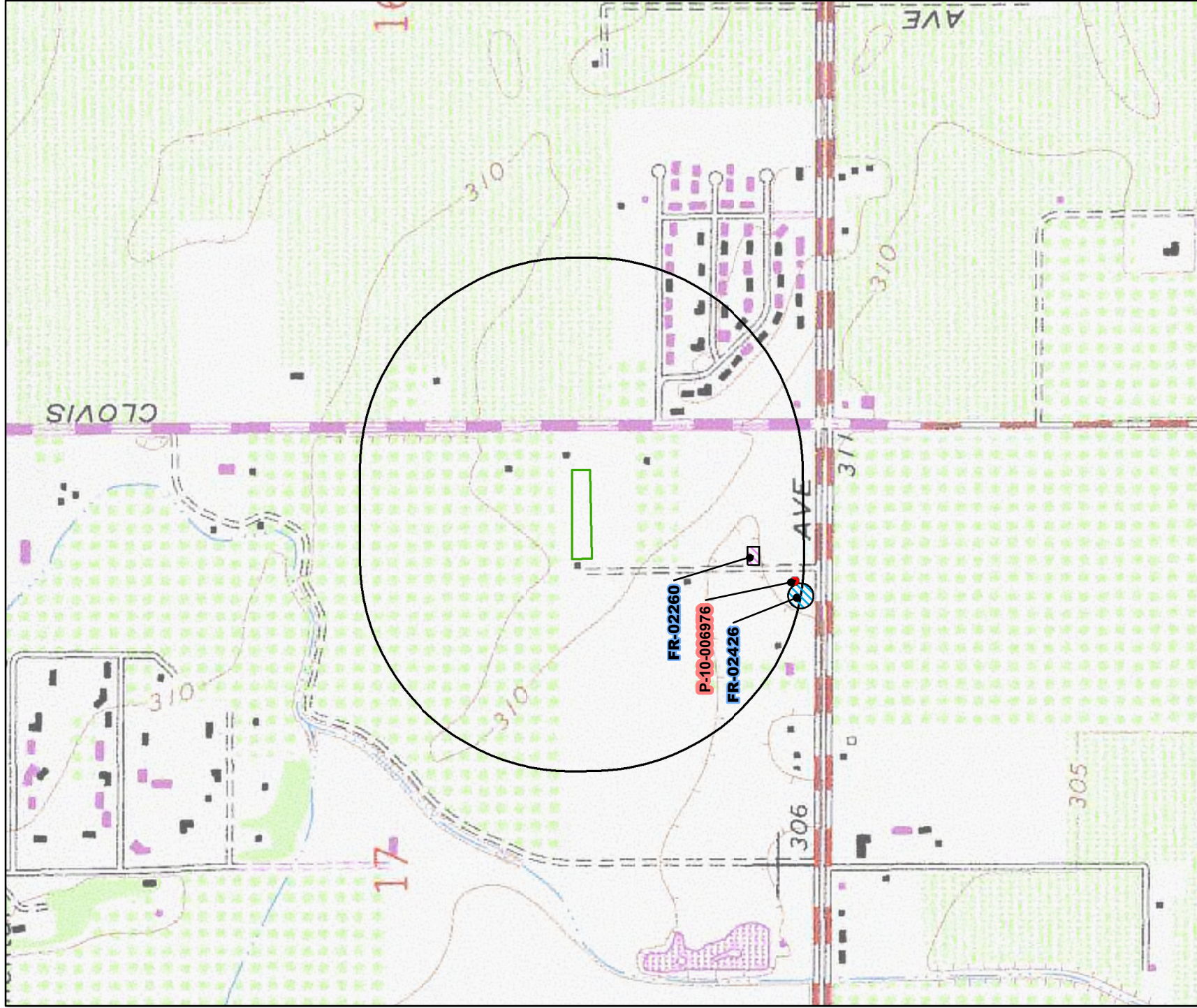
Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

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

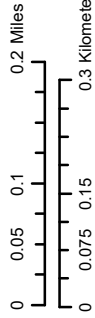
Sincerely,



Jeremy E. David
Assistant Coordinator



May depict confidential cultural resource locations.
Do not distribute.



Project Area



Record Search radius



SSJV Information Center Record Search 21-380
Requester: Robert Gerry, Peak & Associates, Inc.
Project Name: Tract 6352
USGS 7.5' Quad(s): Malaga
County: Fresno

Resource List

SSJVIC Record Search 21-380

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-10-006976		Resource Name - 5537 East Jensen Ave	Building	Historic	HP02; HP33	2011 (Dana E. Supernowicz, Historic Resource Associates)	FR-02426

Report List

SSJVIC Record Search 21-380

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
FR-02260		2005	Bonner, Wayne H.	Records Search Results and Site Visit for Cricket Telecommunications Facility Candidate FAT-042F (Jensen/Clovis Ave.), 5537 East Jensen Avenue, Fresno, Fresno County, California	Michael Brandman Associates	
FR-02426		2011	Supernowicz, Dana	Cultural Resources Study of the Jensen Avenue and Clovis Avenue Project, AT&T Mobility Site No. CN2714, 5537 East Jensen Avenue, Fresno, Fresno County, California	Historic Resoruce Associates	10-006976

Appendix B
Biological & Wetland Report Argonaut



BIOLOGICAL RESOURCE ASSESSMENT

TRACT 6352

5524 E. LAURITE AVENUE

FRESNO, CA 93727

APN 481-346-01; 481-100-14; 481-100-16

Prepared For:

Vang, Inc. Consulting Engineers

October 2021

BIOLOGICAL RESOURCE ASSESSMENT
TRACT 6352
5524 E. LAURITE AVENUE
FRESNO, CA 93727
APN 481-346-01; 481-100-14; 481-100-16

Prepared For:

Vang Inc., Consulting Engineers

Prepared By:



2377 Gold Meadow Way, Suite 100
Gold River, CA 95670

October 2021

Table of Contents

1.0	<u>EXECUTIVE SUMMARY AND INTRODUCTION</u>	<u>1</u>
EXECUTIVE SUMMARY		
1.1	INTRODUCTION	1
1.2	STUDY OBJECTIVES	1
1.3	REGULATORY JURISDICTION AND BACKGROUND.....	3
	WETLAND PROTECTION	3
	LISTED PROTECTED SPECIES AND HABITAT PROTECTION	4
	CALIFORNIA ENDANGERED SPECIES ACT.....	5
	CALIFORNIA ENVIRONMENTAL QUALITY ACT	5
	LAND USE ENTITLEMENTS.....	5
2.0	<u>RESOURCES CONSULTED, METHODS, AND RESULTS.....</u>	<u>7</u>
2.1	DATA AND LITERATURE REVIEW	7
2.2	AERIAL PHOTOGRAPHY AND WETLAND MAPPING	7
2.3	FIELD INVESTIGATION	7
3.0	<u>RESULTS AND CONCLUSIONS.....</u>	<u>8</u>
3.1	PHYSICAL RESOURCES AND ELEMENTS	8
	CLIMATE.....	8
	TOPOGRAPHY	8
	LAND USE	8
	HABITAT	9
	WATERS/WETLAND.....	9
	SPECIAL STATUS SPECIES	10
3.3	CONCLUSIONS AND RECOMMENDATIONS.....	11

List of Figures

Figure 1: Location	2
Figure 2: National Wetland Inventory Map.....	9
Figure 3: CNDDDB Bio Records in the Vicinity of the Study Area.....	10

Appendices

Appendix A: Photographs

Appendix B: CNDDDB Query Results

1.0 EXECUTIVE SUMMARY AND INTRODUCTION

EXECUTIVE SUMMARY

Argonaut Ecological, Inc. conducted a biological evaluation of a proposed development of a 2.15-acre parcel located along Laurite Avenue, just west of S. Clovis Avenue and just north of Jensen Avenue in Fresno, California. The Study Area is within an existing subdivision. The biological evaluation focused on mapping existing habitat types based on a field review and reviewing public and commercial databases, aerial photographs (current and historical), and other published information and available data. The evaluation included assessing the types of habitats present and sensitive species associated with those habitats.

The Study Area lies in parts of Section 17, Township. 14S, Range 21 East (Figure 1). The property is 2.15 acres and bounded by residential housing on the north and west, Clovis Avenue to the East, and Jensen Avenue to the South.

The Study Area does not support habitat for special status species or suitable habitat for special status species. There are no waters of the U.S. or wetlands within the Study Area.

1.1 INTRODUCTION

The Study Area will be subdivided into 17 residential lots, each roughly 5300 square feet.

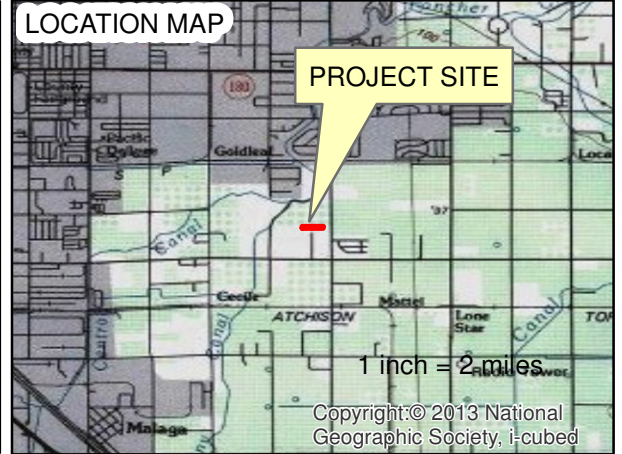
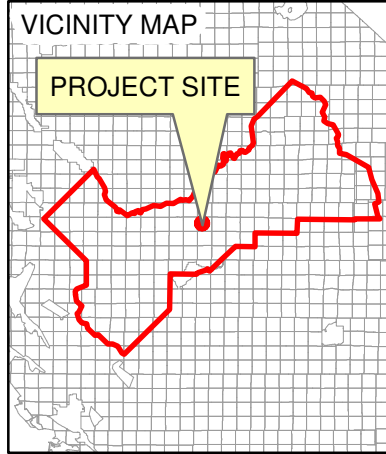
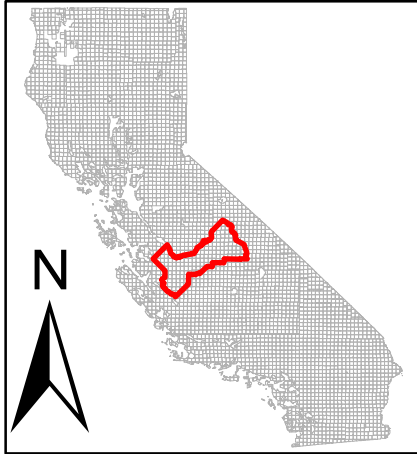
1.2 STUDY OBJECTIVES

This report provides an overall assessment of the biological resources present within and adjacent to the Study Area, describes the area's biological characteristics, and evaluates the Study Area's likelihood to support sensitive biological resources (such as wetlands, creeks/drainages, and special status species). This evaluation used available literature, aerial photography, historic topographic and aerial maps, and multiple site visits. For purposes of this study, wetland habitat includes those areas possibly considered to be "waters of the U.S." as defined by the U.S. Army Corps of Engineers (Army Corps) and/or Waters of the State of California. As described in Section 1.2.1, wetlands are a subset of "Waters of the U.S." under the Federal Clean Water Act.

VICINITY AND LOCATION MAP

PROJECT NAME: TM6352

PROJECT LOCATION: Part of Sections 17, T. 14S., R. 21E., Mount Diablo Base and Meridian
Fresno County California,



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

 APPROXIMATE BOUNDARY (2.15AC.)

200 100 0 200 Feet

1 in = 200 ft

ARGONAUT
ECOLOGICAL
CONSULTING, INC.



Date: 10/28/2021

This report assesses the Project's potential effects on biological resources and evaluates whether any associated regulatory approvals or permits are required. This report also assesses any potential impacts site development may have on protected habitat, species protected by the Federal Endangered Species Act, or those protected under the California Environmental Quality Act or California Endangered Species Act.

1.3 REGULATORY JURISDICTION AND BACKGROUND

Several agencies share regulatory jurisdiction over biological resources. The following is a brief description of the primary agencies and their respective jurisdiction.

Wetland Protection

U.S. Army Corps of Engineers

Wetlands are a type of Waters of the U.S. The U.S. Army Corps of Engineers (Army Corps) and the U.S. Environmental Protection Agency regulate the placement of fill into the Waters of the U.S. under Section 404 of the Federal Clean Water Act and Section 10 of the Rivers and Harbor Act. For this purpose, the term "Waters of the U.S." is legally defined under Section 404 of the Federal Clean Water Act and includes interstate streams, creeks, and adjacent wetlands. The Army Corps defines wetlands as "*those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions*" (Environmental Laboratory 1987). In California, seasonally inundated areas that meet the criteria of all three wetland parameters (soils, hydrology, and vegetation), as defined in the recently issued Wetland Delineation Manual for the Arid West (USACE 2006), are also considered jurisdictional wetlands.

California State Water Resources Control Board

Since 1993, California has had a Wetlands Conservation Policy (a.k.a., the Executive Order W-51 59-93) and is commonly referred to as the *No Net Loss policy* for wetlands. This order establishes a state mandate for developing and adopting a policy framework and strategy to protect the state's wetland ecosystems. The policy was to be implemented voluntarily and was expressly not to be implemented on a "project-by-project" basis (See EO W-59-93, Section III).

In 2020 California adopted the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. The State definition of wetland differs from the Federal definition in that the state definition includes areas with no vegetation, assuming the other criteria are met. Wetlands of the State include 1) natural wetlands, 2) wetlands created by modification of water of the state (at any point in history), and 3) artificial wetlands that meet specific criteria. The State definition only exempts a few types of waters. Examples of water features excluded from the state's definition include industrial or municipal wastewater, certain stormwater treatment

facilities, agricultural crop irrigation, industrial processing or cooling, and fields flooded for rice growing.

Listed Protected Species and Habitat Protection

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) implements the Migratory Bird Treaty Act (16 USC Section 703-711), Bald and Golden Eagle Protection Act (16 United States Code [USC] Section 668), and Federal Endangered Species Act (FESA; 16 USC § 153 *et seq.*).

The **Migratory Bird Treaty Act (MBTA)** was first enacted in 1918 to protect migratory birds between the United States and Great Britain (acting on behalf of Canada). The MBTA makes it illegal for anyone to take, possess, import, transport, purchase, barter, or offer for sale or purchase any migratory birds, nests, or eggs unless a federal agency has issued a permit. The USFWS has statutory authority and responsibility for enforcing the MBTA. The MBTA was reformed in 2004 to include all species native to the U.S. or its territories due to natural biological or ecological processes (70 FR 12710, March 15, 2005). The Act does not include non-native species whose occurrences in the U.S. are solely the result of intentional or unintentional human introduction. The USFWS maintains a list of bird species not protected under the MBTA.

In January 2021, the USFWS published a new rule in the Federal Register. Under the rule change, the unintentional killing of migratory birds does not violate the MBTA. Only the intentional "pursuing, hunting, taking, capturing, killing, or attempting to do the same ... directed at migratory birds, their nests, or their eggs" would be illegal under the changes.

The **Federal Endangered Species Act** prohibits "take" "of any federally listed wildlife species (the destruction of federally listed plants on private property is not prohibited and does not require a permit). "Take" under the federal definition means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. "Incidental take" is harm or death that may occur during the implementation of an otherwise lawful activity. "Candidate species" do not have the full protection of FESA. However, the USFWS advises project applicants that it is prudent to address these species since they could be elevated to "listed status" before completion of projects with long planning or development schedules.

An Incidental Take Permit or Take Permit is required when an activity would either kill, harm, harass, or interrupt a listed species' breeding or nesting. The ESA definition of "harm" is somewhat less definitive since it includes ubiquitous activities. In 1999 the USFWS published a clarification of the term "harm" as it applies to the ESA in the Federal Register. As stated, the final rule defined the term "harm" "to include any act which causes actual harm (kills or injures fish or wildlife) and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) is a Trustee Agency responsible under CEQA to review and provide recommendations on projects that could impact plant and wildlife resources. Under the Fish and Game Code Section 1802, the CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations. The California Fish and Game Code also provides authority for the CDFW to regulate projects that could result in the "take" of any species listed by the state as threatened or endangered (Section 2081). CDFW also has authority over all state streams, as described below.

Perennial and intermittent streams also fall under the jurisdiction of CDFW according to Sections 1601-1603 of the Fish and Game Code (Streambed Alteration Agreements). CDFW's jurisdictional extent includes work within the stream zone, including the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream, or lake. Before issuing a 1601 or 1603 Streambed Alteration Agreement, the CDFW must demonstrate compliance with CEQA. In most cases, CDFW relies on the CEQA review performed by the local lead agency. However, in cases where no CEQA review was required for the project, CDFW would act as the lead agency under CEQA.

California Endangered Species Act

The California Endangered Species Act (CESA) protects candidate plants and animal species and those listed under CESA as rare, threatened, or endangered. This Act prohibits the take of any such species unless authorized. Section 2081 authorizes the state to issue incidental take permits. The state definition of taking applies only to acts that result in death or adverse impacts to protected species. The CAESA mirrors the federal regulation as it relates to "take"; however, there is no state equivalent definition of "harm" or "harass." Incidental take is also not defined by the CAESA statute or regulation. Unlike the federal ESA, CAESA does qualify that incidental take "is not prohibited "if it is the result of an act that occurs on a farm or ranch in the course of an otherwise lawful routine and ongoing agricultural activity." Where disagreement occurs (and in some cases, this has been the subject of court cases) is in the common understanding of "routine and ongoing agricultural activity."

California Environmental Quality Act

The CEQA Guidelines require a review of projects to determine their environmental effects and identify mitigation for significant effects. The Guidelines state that an effect may be significant if it affects rare and endangered species. Section 15380 of the Guidelines defines *rare* to include listed species and allows agencies to consider rare species other than those designated as State or Federal threatened or endangered, but that meet the standards for rare under the Federal or State endangered species acts. On this basis, plants designated as rare by non-regulatory organizations (e.g., California Native Plant Society), species of special concern as defined by CDFW, candidate species as defined by USFWS, and other designations need to be considered in CEQA analyses.

Land Use Entitlements

City of Fresno

The Study Area falls within the City of Fresno. The City is responsible for all local land-use decisions within its jurisdiction and CEQA compliance. As the lead agency under CEQA, the City will consider other responsible agencies' recommendations during the CEQA review.

2.0 RESOURCES CONSULTED AND METHODS

The following section describes the methods used to assess the Study Area and includes data review and evaluation, field studies, and aerial photograph interpretations.

2.1 DATA AND LITERATURE REVIEW

Documents and sources of information used to prepare this evaluation include the following:

- U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey of Fresno Area (Soils mapper).
- Aerial photography (Google Earth®, Bing®, and historic aerials).
- California Department of Fish and Wildlife, California Natural Diversity Database (CNDDDB/RareFind - Recent version with updates)
- U.S. Fish and Wildlife Service, National Wetland Inventory Map

Before conducting a site review, the California Natural Diversity Database/ RareFind (CNDDDB) and the USFWS IPAC were consulted to determine the species potentially present within the Study Area based on location. The purpose of the review was to determine the likelihood of special status species being present on the site based on the site's distance from documented species occurrences and the presence or absence of habitat types utilized by such species. The CNDDDB includes records of reported observations for special status plant and animal species and is queried based on a search radius of USGS quadrangle maps. Before conducting the fieldwork, high-resolution aerial photographs were also reviewed to determine if any areas on the site appear to support the presence of Waters of the U.S.

2.2 AERIAL PHOTOGRAPHY AND WETLAND MAPPING

Historical aerial photographs dating back to the 1980s of the Study Area were reviewed to identify site features and determine land-use changes over time. Also reviewed were wetland mapping and aerial photographs to determine if the Study Area recently supported wetlands.

2.3 FIELD INVESTIGATION

A site investigation was performed in September, 2021. The entire Study Area was walked. Soils, vegetation, and drainage patterns within the Study Area were inspected to determine the habitat present and suitability for species of concern. Photographs are included in Appendix A.

3.0 RESULTS AND CONCLUSIONS

Section 3.1, below, describes the physical features (i.e., land use, soils, vegetation, hydrology, etc.) and the study area's biological features. The physical components and land use strongly influence the types of plants and animals present. This section also describes the habitats present and the specific biological resources observed during the site review.

Section 3.2 presents our conclusions, and Section 3.3 contains recommended avoidance and minimization measures to avoid potential impacts.

The following is not an exhaustive inventory of plants and animals present. Instead, the discussion provides sufficient information to identify biological resources that are considered unique, sensitive, or protected by current law and the potential impacts on those resources due to site development.

3.1 PHYSICAL RESOURCES AND ELEMENTS

Climate

The Study Area climate is typical of the central San Joaquin Valley, with long, hot, and dry summers and winters that are cool and mild. In the winter, rainfall averages approximately 10.9 inches per year, falling mainly between November and April (Western Regional Climate Center, 2004). During the 2019/2020 rainy season (Oct-May), the total rainfall was below average at 8.9 inches, as recorded at Fresno State University, Fresno. The rainfall for the 2020/2021 rainy season (Oct-May 2021) is 6.52 inches, with most of the rainfall occurring in January 2021.

Topography

The property lies within the San Joaquin Valley and is relatively flat, remaining around 325 feet above sea level throughout the site. The construction of the adjacent subdivision has modified the site topography.

Land Use

The Study Area was historically in agricultural production (orchard and dryland crops), and the land to the north (now a developed subdivision) was converted from orchards to residential starting around 2003. The land to the west (also now a residential subdivision) was converted around 1998. The western half of the Study Area was part of an orchard in the late 1990s and ranch. The eastern half appears to have remained either dry land farmed or fallow since the early 2000s. The Study Area appears to be periodically disced for fire suppression. Although not reflected in recent aerial photography, the property to the south is not developed with a storage facility.

Habitat

There are several California habitat classification systems. Most of these classification systems describe natural communities and do not have established classifications for disturbed or agricultural habitats. The California Guide to Wildlife Habitat Relationship System (CWHR) was developed to support habitat conservation and management, land use planning, impact assessment, education, and research involving terrestrial vertebrates in California and is used within California CNDDB Biogeographic Information and Observation System (BIOS). This evaluation generally uses the CWHR/BIOS habitat classification and includes a description of the ruderal habitat commonly used in environmental evaluations performed under CEQA.

As previously stated, the Study Area comprises former orchards and dryland crop fields that were removed around 2000, and the site appears to be periodically disked and used as an illicit disposal area over the years. The site has been reestablished with a mixture of non-native forbs and weedy species (wild oats, dove weed, storks-bill, mustard, star-thistle, etc.).

Waters/Wetland

According to the National Wetland Inventory (NWI) mapping, there are no wetlands or drainage features within or immediately adjacent to the Study Area, nor were there any waters or wetland historically present. A review of historical aerial photography and the field review confirmed the accuracy of the NWI mapping.

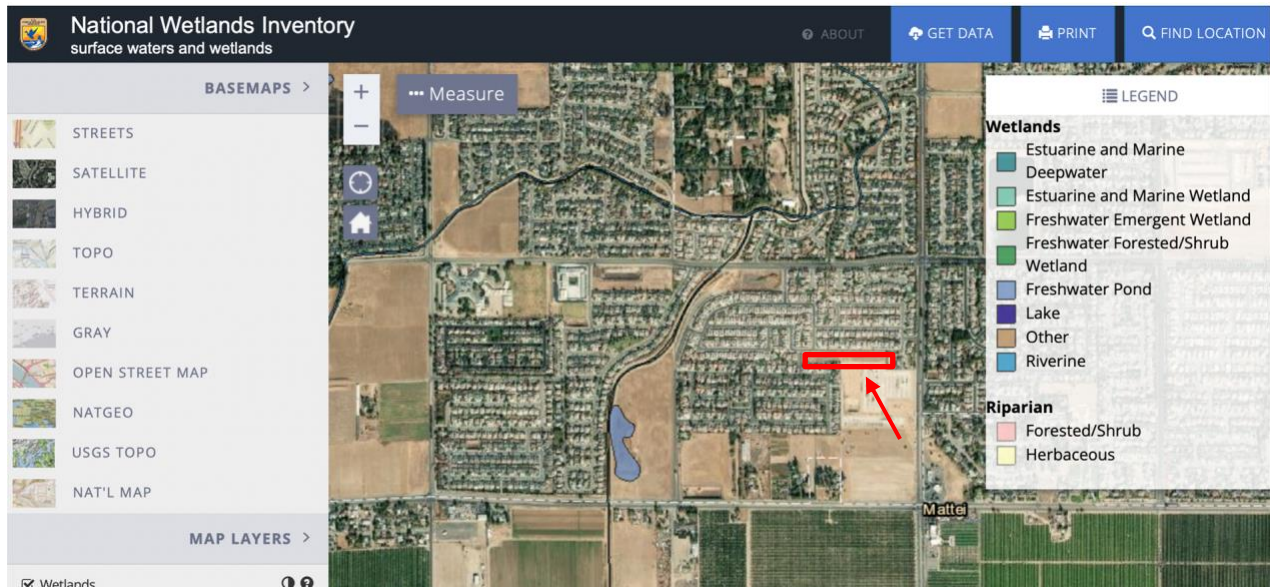


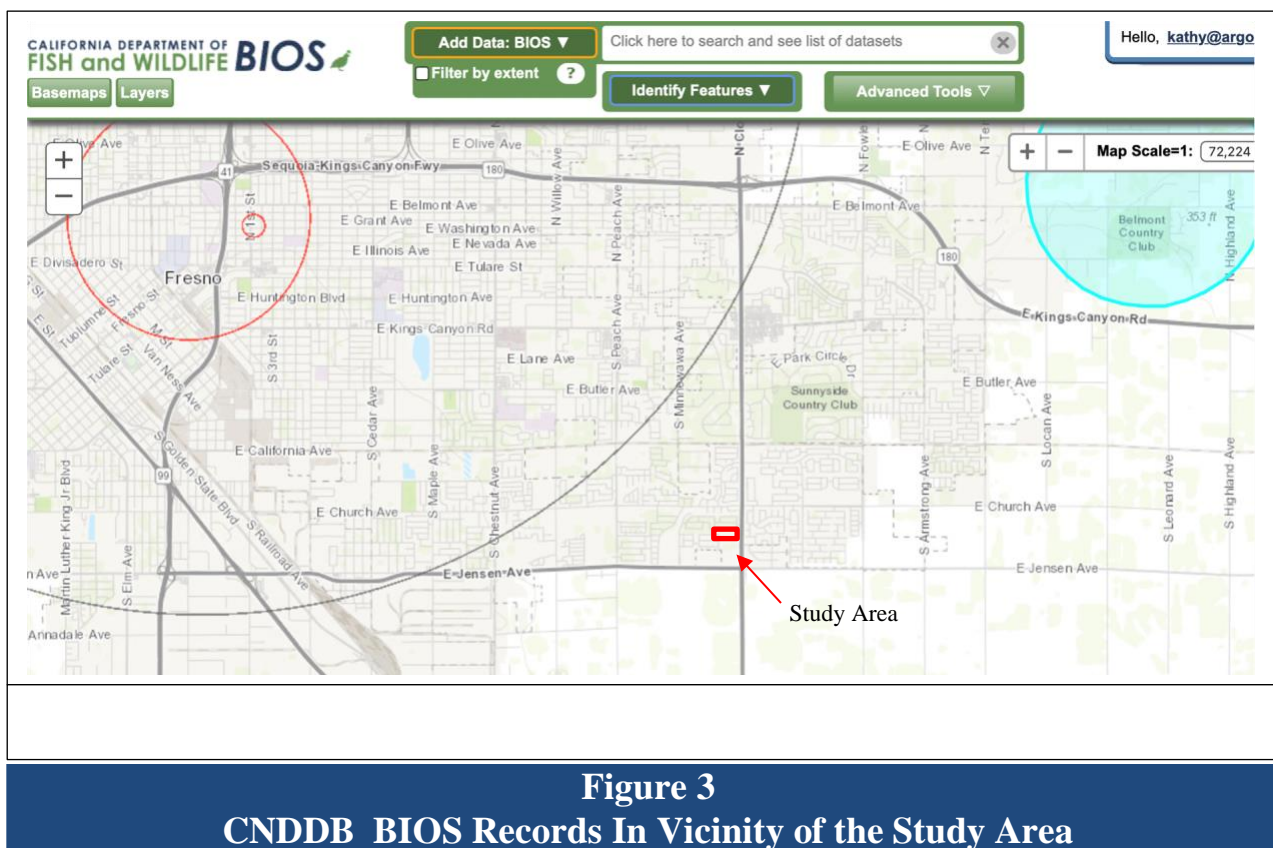
Figure 2 – National Wetland Inventory Map

Special Status Species

A search of the California Natural Diversity Database (CNDDDB) database was reviewed to determine which special status species could be present within the Study Area. There is no critical habitat for any listed species within or in the vicinity of the Study Area. There is no adjacent or nearby aquatic habitat near the Study Area.

There are numerous species within the Malaga quadrangle; however, the Study Area does not support suitable habitats. Appendix B includes the results of the CNDDDB search. The Study Area lacks aquatic or native, or non-native habitat that could support habitat for special status species. The Study Area is a small habitat until (2.15 acres) that does not support a habitat that could support special status plants or animals because of the low habitat value of the Study Area habitat and the lack of a prey base for wildlife. There are no potential nesting trees or shrubs within the Study Area to provide habitat for migratory birds or raptors.

Figure 5 shows the nearest records of recorded species.



3.3 CONCLUSIONS AND RECOMMENDATIONS

- The Study Area was in agricultural production until the nearly 2000s. Since that time, the site has been routinely disced for fire suppression
- There are no waters of the U.S./waters of the State within the Study Area. There were no historic drainages/creeks within the Study Area.
- The Study Area is highly disturbed and only supports weedy species
- There are no potential raptor nesting trees (or many trees) or migratory birds nesting habitat within the Study Area.
- Development of the Study Area will not result in any significant impacts on biological resources.

RECOMMENDATIONS

No recommendations are made or necessary.



Location: Tract 6352

Photograph Date: September, 2021

Photograph No. 1

Direction: East

Description: View of Study Area, looking east



Photograph No. 2

Direction: West

Description: View of Study Area's western end





Location: Tract 6352

Photograph Date: September, 2021

Photograph No. 3

Direction: Northeast

Description:

View of dirt piles and
construction/utility debris



Photograph No. 4

Direction: Southeast

Description:

View of border wall between
site and storage facility to the
south



Appendix B: CNDDDB Query Results



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Malaga (3611966))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Ambystoma californiense</i> pop. 1 California tiger salamander - central California DPS	G2G3 S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	300 300	1261 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Anniella pulchra</i> Northern California legless lizard	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	300 300	378 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Arizona elegans occidentalis</i> California glossy snake	G5T2 S2	None None	CDFW_SSC-Species of Special Concern	300 300	260 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus crotchii</i> Crotch bumble bee	G3G4 S1S2	None None		300 300	437 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Buteo swainsoni</i> Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	288 300	2541 S:2	0	0	1	0	0	1	1	1	2	0	0
<i>Caulanthus californicus</i> California jewelflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley		67 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	345 345	165 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Efferia antiochi</i> Antioch efferian robberfly	G1G2 S1S2	None None		300 300	4 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Imperata brevifolia</i> California satintail	G4 S3	None None	Rare Plant Rank - 2B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	300 300	32 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Leptosiphon serrulatus</i> Madera leptosiphon	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive		27 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lytta molesta</i> molestan blister beetle	G2 S2	None None		360 360	17 S:1	0	0	0	0	0	1	1	0	0	1	0
<i>Metapogon hurdi</i> Hurd's metapogon robberfly	G1G2 S1S2	None None		325 325	3 S:1	0	0	0	0	0	1	1	0	0	1	0
<i>Phrynosoma blainvillii</i> coast horned lizard	G3G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	300 300	784 S:1	0	0	0	0	1	0	1	0	0	1	0

Appendix C CALEEMOD Report

20-015 LAURITE SUBDIVISION Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
 - 2.3. Construction Emissions by Year, Mitigated
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
 - 2.6. Operations Emissions by Sector, Mitigated
- 3. Construction Emissions Details
 - 3.1. Site Preparation (2024) - Unmitigated
 - 3.2. Site Preparation (2024) - Mitigated

3.3. Grading (2024) - Unmitigated

3.4. Grading (2024) - Mitigated

3.5. Grading (2025) - Unmitigated

3.6. Grading (2025) - Mitigated

3.7. Building Construction (2024) - Unmitigated

3.8. Building Construction (2024) - Mitigated

3.9. Building Construction (2025) - Unmitigated

3.10. Building Construction (2025) - Mitigated

3.11. Architectural Coating (2025) - Unmitigated

3.12. Architectural Coating (2025) - Mitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.2. Unmitigated

4.3.1. Mitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.4.1. Mitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.5.1. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	20-015 LAURITE SUBDIVISION
Construction Start Date	6/1/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	25.4
Location	36.711991800353374, -119.70279230231908
County	Fresno
City	Fresno
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2404
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Single Family Housing	17.0	Dwelling Unit	0.00	33,150	199,119	—	54.0	—
Other Non-Asphalt Surfaces	6.10	1000sqft	0.14	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-1-B	Use Cleaner-Fuel Equipment
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction
Transportation	T-1	Increase Residential Density
Transportation	T-33*	Locate Project near Bike Path/Bike Lane
Transportation	T-46*	Improve Transit Access, Safety, and Comfort
Energy	E-2	Require Energy Efficient Appliances
Energy	E-7*	Require Higher Efficacy Public Street and Area Lighting
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power
Energy	E-12-A	Install Alternative Type of Water Heater in Place of Gas Storage Tank Heater in Residences
Energy	E-12-B	Install Electric Space Heater in Place of Natural Gas Heaters in Residences
Energy	E-13	Install Electric Ranges in Place of Gas Ranges
Energy	E-20*	Install Whole-House Fans
Water	W-2	Use Grey Water
Water	W-4	Require Low-Flow Water Fixtures
Water	W-5	Design Water-Efficient Landscapes
Water	W-7	Adopt a Water Conservation Strategy
Waste	S-4*	Recycle Demolished Construction Material

Refrigerants	R-1	Use Alternative Refrigerants Instead of High-GWP Refrigerants
Refrigerants	R-7*	Reduce Disposal Emissions
Natural Lands	N-1	Create New Vegetated Open Space
Natural Lands	N-2	Expand Urban Tree Planting
Area Sources	AS-1	Use Low-VOC Cleaning Supplies
Area Sources	AS-2	Use Low-VOC Paints

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.15	21.6	17.1	18.3	0.03	0.79	5.41	6.20	0.73	2.59	3.32	—	3,179	3,179	0.13	0.04	0.53	3,195
Mit.	2.15	21.6	17.1	18.3	0.03	0.79	2.17	2.96	0.73	1.02	1.75	—	3,179	3,179	0.13	0.04	0.53	3,195
% Reduced	—	—	—	—	—	—	60%	52%	—	60%	47%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.14	1.80	17.1	18.2	0.03	0.79	5.41	6.20	0.73	2.59	3.32	—	3,170	3,170	0.13	0.04	0.01	3,185
Mit.	2.14	1.80	17.1	18.2	0.03	0.79	2.17	2.96	0.73	1.02	1.75	—	3,170	3,170	0.13	0.04	0.01	3,185
% Reduced	—	—	—	—	—	—	60%	52%	—	60%	47%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	1.04	0.88	8.34	9.22	0.01	0.38	2.11	2.49	0.35	1.00	1.36	—	1,638	1,638	0.07	0.02	0.12	1,645
Mit.	1.04	0.88	8.34	9.22	0.01	0.38	0.85	1.23	0.35	0.40	0.75	—	1,638	1,638	0.07	0.02	0.12	1,645
% Reduced	—	—	—	—	—	—	60%	50%	—	60%	45%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	0.16	1.52	1.68	< 0.005	0.07	0.38	0.45	0.06	0.18	0.25	—	271	271	0.01	< 0.005	0.02	272
Mit.	0.19	0.16	1.52	1.68	< 0.005	0.07	0.16	0.23	0.06	0.07	0.14	—	271	271	0.01	< 0.005	0.02	272
% Reduced	—	—	—	—	—	—	60%	50%	—	60%	45%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.15	1.81	17.1	18.3	0.03	0.79	5.41	6.20	0.73	2.59	3.32	—	3,179	3,179	0.13	0.04	0.53	3,195
2025	0.81	21.6	6.08	8.37	0.01	0.25	0.05	0.29	0.23	0.01	0.24	—	1,507	1,507	0.06	0.02	0.23	1,514
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.14	1.80	17.1	18.2	0.03	0.79	5.41	6.20	0.73	2.59	3.32	—	3,170	3,170	0.13	0.04	0.01	3,185
2025	1.97	1.66	15.4	17.4	0.03	0.68	5.41	6.09	0.63	2.59	3.22	—	3,167	3,167	0.13	0.04	0.01	3,182
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.04	0.88	8.34	9.22	0.01	0.38	2.11	2.49	0.35	1.00	1.36	—	1,638	1,638	0.07	0.02	0.12	1,645
2025	0.23	0.77	1.81	2.35	< 0.005	0.08	0.22	0.30	0.07	0.10	0.17	—	440	440	0.02	0.01	0.03	442
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.19	0.16	1.52	1.68	< 0.005	0.07	0.38	0.45	0.06	0.18	0.25	—	271	271	0.01	< 0.005	0.02	272

2025	0.04	0.14	0.33	0.43	< 0.005	0.01	0.04	0.05	0.01	0.02	0.03	—	72.8	72.8	< 0.005	< 0.005	< 0.005	73.2
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2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.15	1.81	17.1	18.3	0.03	0.79	2.17	2.96	0.73	1.02	1.75	—	3,179	3,179	0.13	0.04	0.53	3,195
2025	0.81	21.6	6.08	8.37	0.01	0.25	0.05	0.29	0.23	0.01	0.24	—	1,507	1,507	0.06	0.02	0.23	1,514
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.14	1.80	17.1	18.2	0.03	0.79	2.17	2.96	0.73	1.02	1.75	—	3,170	3,170	0.13	0.04	0.01	3,185
2025	1.97	1.66	15.4	17.4	0.03	0.68	2.17	2.85	0.63	1.02	1.65	—	3,167	3,167	0.13	0.04	0.01	3,182
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.04	0.88	8.34	9.22	0.01	0.38	0.85	1.23	0.35	0.40	0.75	—	1,638	1,638	0.07	0.02	0.12	1,645
2025	0.23	0.77	1.81	2.35	< 0.005	0.08	0.09	0.17	0.07	0.04	0.11	—	440	440	0.02	0.01	0.03	442
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.19	0.16	1.52	1.68	< 0.005	0.07	0.16	0.23	0.06	0.07	0.14	—	271	271	0.01	< 0.005	0.02	272
2025	0.04	0.14	0.33	0.43	< 0.005	0.01	0.02	0.03	0.01	0.01	0.02	—	72.8	72.8	< 0.005	< 0.005	< 0.005	73.2

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	1.64	1.92	0.84	8.71	0.02	0.58	0.25	0.83	0.56	0.04	0.60	102	1,307	1,409	1.45	0.05	3.23	1,463
Mit.	1.44	1.68	0.69	7.58	0.02	0.58	0.17	0.75	0.56	0.03	0.59	102	1,050	1,151	1.42	0.04	2.33	1,200
% Reduced	12%	13%	18%	13%	11%	< 0.5%	30%	9%	< 0.5%	30%	3%	< 0.5%	20%	18%	2%	27%	28%	18%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.48	1.75	0.89	7.40	0.02	0.58	0.25	0.83	0.56	0.04	0.60	102	1,237	1,339	1.46	0.05	0.31	1,391
Mit.	1.30	1.54	0.73	6.37	0.02	0.58	0.17	0.75	0.56	0.03	0.59	102	1,000	1,102	1.43	0.04	0.29	1,149
% Reduced	12%	12%	19%	14%	10%	< 0.5%	30%	9%	< 0.5%	30%	3%	< 0.5%	19%	18%	2%	28%	7%	17%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.84	1.46	0.70	4.70	0.01	0.15	0.24	0.39	0.14	0.04	0.18	30.1	1,101	1,131	1.12	0.05	1.50	1,175
Mit.	0.67	1.24	0.54	3.72	0.01	0.14	0.17	0.31	0.14	0.03	0.17	30.0	864	894	1.08	0.04	1.12	932
% Reduced	21%	15%	22%	21%	20%	2%	30%	19%	2%	30%	8%	1%	22%	21%	3%	28%	25%	21%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	0.27	0.13	0.86	< 0.005	0.03	0.04	0.07	0.03	0.01	0.03	4.99	182	187	0.18	0.01	0.25	195
Mit.	0.12	0.23	0.10	0.68	< 0.005	0.03	0.03	0.06	0.03	0.01	0.03	4.96	143	148	0.18	0.01	0.19	154
% Reduced	21%	15%	22%	21%	20%	2%	30%	19%	2%	30%	8%	1%	22%	21%	3%	28%	25%	21%

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.66	0.63	0.46	3.78	0.01	0.01	0.25	0.25	0.01	0.04	0.05	—	819	819	0.04	0.04	2.99	835
Area	0.96	1.28	0.21	4.86	0.01	0.56	—	0.56	0.54	—	0.54	92.4	182	274	0.44	< 0.005	—	285
Energy	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	301	301	0.03	< 0.005	—	302
Water	—	—	—	—	—	—	—	—	—	—	—	1.31	6.03	7.34	0.14	< 0.005	—	11.7
Waste	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	1.64	1.92	0.84	8.71	0.02	0.58	0.25	0.83	0.56	0.04	0.60	102	1,307	1,409	1.45	0.05	3.23	1,463
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.59	0.55	0.52	3.43	0.01	0.01	0.25	0.25	0.01	0.04	0.05	—	751	751	0.05	0.05	0.08	766
Area	0.87	1.20	0.20	3.90	0.01	0.56	—	0.56	0.54	—	0.54	92.4	179	271	0.44	< 0.005	—	282
Energy	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	301	301	0.03	< 0.005	—	302
Water	—	—	—	—	—	—	—	—	—	—	—	1.31	6.03	7.34	0.14	< 0.005	—	11.7
Waste	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	1.48	1.75	0.89	7.40	0.02	0.58	0.25	0.83	0.56	0.04	0.60	102	1,237	1,339	1.46	0.05	0.31	1,391
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.58	0.54	0.48	3.28	0.01	0.01	0.24	0.25	0.01	0.04	0.05	—	753	753	0.04	0.04	1.26	768
Area	0.24	0.91	0.05	1.35	< 0.005	0.13	—	0.13	0.12	—	0.12	20.8	41.5	62.2	0.10	< 0.005	—	64.7
Energy	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	301	301	0.03	< 0.005	—	302
Water	—	—	—	—	—	—	—	—	—	—	—	1.31	6.03	7.34	0.14	< 0.005	—	11.7
Waste	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	0.84	1.46	0.70	4.70	0.01	0.15	0.24	0.39	0.14	0.04	0.18	30.1	1,101	1,131	1.12	0.05	1.50	1,175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.11	0.10	0.09	0.60	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	125	125	0.01	0.01	0.21	127
Area	0.04	0.17	0.01	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	3.44	6.87	10.3	0.02	< 0.005	—	10.7

Energy	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	49.8	49.8	0.01	< 0.005	—	50.0
Water	—	—	—	—	—	—	—	—	—	—	—	0.22	1.00	1.21	0.02	< 0.005	—	1.94
Waste	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.68
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	0.15	0.27	0.13	0.86	< 0.005	0.03	0.04	0.07	0.03	0.01	0.03	4.99	182	187	0.18	0.01	0.25	195

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.46	0.44	0.32	2.65	0.01	< 0.005	0.17	0.18	< 0.005	0.03	0.03	—	573	573	0.03	0.03	2.09	585
Area	0.96	1.23	0.21	4.86	0.01	0.56	—	0.56	0.54	—	0.54	92.4	182	274	0.44	< 0.005	—	285
Energy	0.02	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	291	291	0.03	< 0.005	—	292
Water	—	—	—	—	—	—	—	—	—	—	—	1.14	4.17	5.31	0.12	< 0.005	—	9.08
Waste	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	1.44	1.68	0.69	7.58	0.02	0.58	0.17	0.75	0.56	0.03	0.59	102	1,050	1,151	1.42	0.04	2.33	1,200
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.41	0.38	0.37	2.40	0.01	< 0.005	0.17	0.18	< 0.005	0.03	0.03	—	526	526	0.03	0.03	0.05	536
Area	0.87	1.14	0.20	3.90	0.01	0.56	—	0.56	0.54	—	0.54	92.4	179	271	0.44	< 0.005	—	282
Energy	0.02	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	291	291	0.03	< 0.005	—	292
Water	—	—	—	—	—	—	—	—	—	—	—	1.14	4.17	5.31	0.12	< 0.005	—	9.08
Waste	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	1.30	1.54	0.73	6.37	0.02	0.58	0.17	0.75	0.56	0.03	0.59	102	1,000	1,102	1.43	0.04	0.29	1,149

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.41	0.38	0.34	2.30	0.01	< 0.005	0.17	0.17	< 0.005	0.03	0.03	—	527	527	0.03	0.03	0.88	538
Area	0.24	0.85	0.05	1.35	< 0.005	0.13	—	0.13	0.12	—	0.12	20.8	41.5	62.2	0.10	< 0.005	—	64.7
Energy	0.02	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	291	291	0.03	< 0.005	—	292
Water	—	—	—	—	—	—	—	—	—	—	—	1.14	4.17	5.31	0.12	< 0.005	—	9.08
Waste	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	0.67	1.24	0.54	3.72	0.01	0.14	0.17	0.31	0.14	0.03	0.17	30.0	864	894	1.08	0.04	1.12	932
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	0.07	0.06	0.42	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	87.3	87.3	< 0.005	0.01	0.15	89.0
Area	0.04	0.16	0.01	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	3.44	6.87	10.3	0.02	< 0.005	—	10.7
Energy	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	48.2	48.2	0.01	< 0.005	—	48.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.19	0.69	0.88	0.02	< 0.005	—	1.50
Waste	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.68
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	0.12	0.23	0.10	0.68	< 0.005	0.03	0.03	0.06	0.03	0.01	0.03	4.96	143	148	0.18	0.01	0.19	154

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	0.50	4.60	5.56	0.01	0.24	—	0.24	0.22	—	0.22	—	858	858	0.03	0.01	—	861

Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.5	16.5	< 0.005	< 0.005	—	16.5
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.72	2.72	< 0.005	< 0.005	—	2.73
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.20	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.0	31.0	< 0.005	< 0.005	0.12	31.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2024) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	0.50	4.60	5.56	0.01	0.24	—	0.24	0.22	—	0.22	—	858	858	0.03	0.01	—	861
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.5	16.5	< 0.005	< 0.005	—	16.5
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.72	2.72	< 0.005	< 0.005	—	2.73
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.20	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.0	31.0	< 0.005	< 0.005	0.12	31.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.19	11.4	10.7	0.02	0.53	—	0.53	0.49	—	0.49	—	1,713	1,713	0.07	0.01	—	1,719
Dust From Material Movement	—	—	—	—	—	—	5.31	5.31	—	2.57	2.57	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.19	11.4	10.7	0.02	0.53	—	0.53	0.49	—	0.49	—	1,713	1,713	0.07	0.01	—	1,719
Dust From Material Movement	—	—	—	—	—	—	5.31	5.31	—	2.57	2.57	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.46	4.39	4.13	0.01	0.21	—	0.21	0.19	—	0.19	—	660	660	0.03	0.01	—	663
Dust From Material Movement	—	—	—	—	—	—	2.05	2.05	—	0.99	0.99	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.80	0.75	< 0.005	0.04	—	0.04	0.03	—	0.03	—	109	109	< 0.005	< 0.005	—	110
Dust From Material Movement	—	—	—	—	—	—	0.37	0.37	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.30	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	46.5	46.5	< 0.005	< 0.005	0.19	47.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	52.4	52.4	< 0.005	0.01	0.13	55.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.25	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.2	41.2	< 0.005	< 0.005	< 0.005	41.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	52.5	52.5	< 0.005	0.01	< 0.005	55.0

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.5	16.5	< 0.005	< 0.005	0.03	16.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	21.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.73	2.73	< 0.005	< 0.005	0.01	2.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.35	3.35	< 0.005	< 0.005	< 0.005	3.51

3.4. Grading (2024) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.19	11.4	10.7	0.02	0.53	—	0.53	0.49	—	0.49	—	1,713	1,713	0.07	0.01	—	1,719
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.19	11.4	10.7	0.02	0.53	—	0.53	0.49	—	0.49	—	1,713	1,713	0.07	0.01	—	1,719

Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.46	4.39	4.13	0.01	0.21	—	0.21	0.19	—	0.19	—	660	660	0.03	0.01	—	663
Dust From Material Movement	—	—	—	—	—	—	0.80	0.80	—	0.39	0.39	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.80	0.75	< 0.005	0.04	—	0.04	0.03	—	0.03	—	109	109	< 0.005	< 0.005	—	110
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.30	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	46.5	46.5	< 0.005	< 0.005	0.19	47.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	52.4	52.4	< 0.005	0.01	0.13	55.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03	0.03	0.02	0.25	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.2	41.2	< 0.005	< 0.005	< 0.005	41.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	52.5	52.5	< 0.005	0.01	< 0.005	55.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.5	16.5	< 0.005	< 0.005	0.03	16.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	21.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.73	2.73	< 0.005	< 0.005	0.01	2.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.35	3.35	< 0.005	< 0.005	< 0.005	3.51

3.5. Grading (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	1.09	10.1	10.0	0.02	0.46	—	0.46	0.43	—	0.43	—	1,714	1,714	0.07	0.01	—	1,720
Dust From Material Movement	—	—	—	—	—	—	5.31	5.31	—	2.57	2.57	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.1	67.1	< 0.005	< 0.005	—	67.3
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.4	40.4	< 0.005	< 0.005	< 0.005	41.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	51.5	51.5	< 0.005	0.01	< 0.005	53.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.64	1.64	< 0.005	< 0.005	< 0.005	1.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35

3.6. Grading (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	1.09	10.1	10.0	0.02	0.46	—	0.46	0.43	—	0.43	—	1,714	1,714	0.07	0.01	—	1,720
Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.39	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.1	67.1	< 0.005	< 0.005	—	67.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.1
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.23	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.4	40.4	< 0.005	< 0.005	< 0.005	41.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	51.5	51.5	< 0.005	0.01	< 0.005	53.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.64	1.64	< 0.005	< 0.005	< 0.005	1.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35

3.7. Building Construction (2024) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	3.79	4.72	0.01	0.17	—	0.17	0.16	—	0.16	—	883	883	0.04	0.01	—	886
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.69	0.86	< 0.005	0.03	—	0.03	0.03	—	0.03	—	146	146	0.01	< 0.005	—	147
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.25	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	37.9	37.9	< 0.005	< 0.005	0.15	38.6
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.3	24.3	< 0.005	< 0.005	0.06	25.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.20	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	33.6	33.6	< 0.005	< 0.005	< 0.005	34.1
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.4	24.4	< 0.005	< 0.005	< 0.005	25.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.6	23.6	< 0.005	< 0.005	0.04	24.0
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.5	16.5	< 0.005	< 0.005	0.02	17.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.91	3.91	< 0.005	< 0.005	0.01	3.97
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.73	2.73	< 0.005	< 0.005	< 0.005	2.85
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2024) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	3.79	4.72	0.01	0.17	—	0.17	0.16	—	0.16	—	883	883	0.04	0.01	—	886
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.69	0.86	< 0.005	0.03	—	0.03	0.03	—	0.03	—	146	146	0.01	< 0.005	—	147
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.25	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	37.9	37.9	< 0.005	< 0.005	0.15	38.6
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.3	24.3	< 0.005	< 0.005	0.06	25.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.20	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	33.6	33.6	< 0.005	< 0.005	< 0.005	34.1

Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.4	24.4	< 0.005	< 0.005	< 0.005	25.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.6	23.6	< 0.005	< 0.005	0.04	24.0
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.5	16.5	< 0.005	< 0.005	0.02	17.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.91	3.91	< 0.005	< 0.005	0.01	3.97
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.73	2.73	< 0.005	< 0.005	< 0.005	2.85
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.38	1.86	< 0.005	0.06	—	0.06	0.05	—	0.05	—	350	350	0.01	< 0.005	—	351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.25	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.23	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	37.1	37.1	< 0.005	< 0.005	0.14	37.7
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.9	23.9	< 0.005	< 0.005	0.06	25.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.9	32.9	< 0.005	< 0.005	< 0.005	33.4
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.0	24.0	< 0.005	< 0.005	< 0.005	25.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.14	9.14	< 0.005	< 0.005	0.02	9.30
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.41	6.41	< 0.005	< 0.005	0.01	6.71
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.51	1.51	< 0.005	< 0.005	< 0.005	1.54

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.06	1.06	< 0.005	< 0.005	< 0.005	1.11
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	5.14	6.94	0.01	0.22	—	0.22	0.20	—	0.20	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.38	1.86	< 0.005	0.06	—	0.06	0.05	—	0.05	—	350	350	0.01	< 0.005	—	351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.25	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.23	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	37.1	37.1	< 0.005	< 0.005	0.14	37.7
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.9	23.9	< 0.005	< 0.005	0.06	25.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.9	32.9	< 0.005	< 0.005	< 0.005	33.4
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.0	24.0	< 0.005	< 0.005	< 0.005	25.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.14	9.14	< 0.005	< 0.005	0.02	9.30
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.41	6.41	< 0.005	< 0.005	0.01	6.71
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.51	1.51	< 0.005	< 0.005	< 0.005	1.54
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.06	1.06	< 0.005	< 0.005	< 0.005	1.11
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	20.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	—	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.42	7.42	< 0.005	< 0.005	0.03	7.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Architectural Coating (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	20.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	—	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.42	7.42	< 0.005	< 0.005	0.03	7.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03

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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.66	0.63	0.46	3.78	0.01	0.01	0.25	0.25	0.01	0.04	0.05	—	819	819	0.04	0.04	2.99	835
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.66	0.63	0.46	3.78	0.01	0.01	0.25	0.25	0.01	0.04	0.05	—	819	819	0.04	0.04	2.99	835
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.59	0.55	0.52	3.43	0.01	0.01	0.25	0.25	0.01	0.04	0.05	—	751	751	0.05	0.05	0.08	766
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.59	0.55	0.52	3.43	0.01	0.01	0.25	0.25	0.01	0.04	0.05	—	751	751	0.05	0.05	0.08	766
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.11	0.10	0.09	0.60	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	125	125	0.01	0.01	0.21	127
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.11	0.10	0.09	0.60	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	125	125	0.01	0.01	0.21	127

4.1.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.46	0.44	0.32	2.65	0.01	< 0.005	0.17	0.18	< 0.005	0.03	0.03	—	573	573	0.03	0.03	2.09	585
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.46	0.44	0.32	2.65	0.01	< 0.005	0.17	0.18	< 0.005	0.03	0.03	—	573	573	0.03	0.03	2.09	585
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.41	0.38	0.37	2.40	0.01	< 0.005	0.17	0.18	< 0.005	0.03	0.03	—	526	526	0.03	0.03	0.05	536
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.41	0.38	0.37	2.40	0.01	< 0.005	0.17	0.18	< 0.005	0.03	0.03	—	526	526	0.03	0.03	0.05	536
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.07	0.07	0.06	0.42	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	87.3	87.3	< 0.005	0.01	0.15	89.0
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.07	0.07	0.06	0.42	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	87.3	87.3	< 0.005	0.01	0.15	89.0

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	88.8	88.8	0.01	< 0.005	—	89.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	88.8	88.8	0.01	< 0.005	—	89.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	88.8	88.8	0.01	< 0.005	—	89.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	88.8	88.8	0.01	< 0.005	—	89.7

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	14.7	14.7	< 0.005	< 0.005	—	14.8
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	14.7	14.7	< 0.005	< 0.005	—	14.8

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	90.9	90.9	0.01	< 0.005	—	91.8
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	90.9	90.9	0.01	< 0.005	—	91.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	90.9	90.9	0.01	< 0.005	—	91.8
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	90.9	90.9	0.01	< 0.005	—	91.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	15.1	15.1	< 0.005	< 0.005	—	15.2
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	15.1	15.1	< 0.005	< 0.005	—	15.2

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	212	212	0.02	< 0.005	—	213
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	212	212	0.02	< 0.005	—	213
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	212	212	0.02	< 0.005	—	213
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	212	212	0.02	< 0.005	—	213
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.1	35.1	< 0.005	< 0.005	—	35.2
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.1	35.1	< 0.005	< 0.005	—	35.2

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	200	200	0.02	< 0.005	—	200
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	200	200	0.02	< 0.005	—	200
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	200	200	0.02	< 0.005	—	200
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	200	200	0.02	< 0.005	—	200
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.1	33.1	< 0.005	< 0.005	—	33.2
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	33.1	33.1	< 0.005	< 0.005	—	33.2

4.3. Area Emissions by Source

4.3.2. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.87	0.43	0.20	3.90	0.01	0.56	—	0.56	0.54	—	0.54	92.4	179	271	0.44	< 0.005	—	282
Consumer Products	—	0.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.09	0.09	0.01	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.58	2.58	< 0.005	< 0.005	—	2.59
Total	0.96	1.28	0.21	4.86	0.01	0.56	—	0.56	0.54	—	0.54	92.4	182	274	0.44	< 0.005	—	285
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.87	0.43	0.20	3.90	0.01	0.56	—	0.56	0.54	—	0.54	92.4	179	271	0.44	< 0.005	—	282

Consumer	—	0.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.87	1.20	0.20	3.90	0.01	0.56	—	0.56	0.54	—	0.54	92.4	179	271	0.44	< 0.005	—	282
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.04	0.02	0.01	0.16	< 0.005	0.02	—	0.02	0.02	—	0.02	3.44	6.66	10.1	0.02	< 0.005	—	10.5
Consumer Products	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.21	0.21	< 0.005	< 0.005	—	0.21
Total	0.04	0.17	0.01	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	3.44	6.87	10.3	0.02	< 0.005	—	10.7

4.3.1. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.87	0.43	0.20	3.90	0.01	0.56	—	0.56	0.54	—	0.54	92.4	179	271	0.44	< 0.005	—	282
Consumer Products	—	0.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	0.09	0.09	0.01	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.58	2.58	< 0.005	< 0.005	—	2.59
Total	0.96	1.23	0.21	4.86	0.01	0.56	—	0.56	0.54	—	0.54	92.4	182	274	0.44	< 0.005	—	285
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.87	0.43	0.20	3.90	0.01	0.56	—	0.56	0.54	—	0.54	92.4	179	271	0.44	< 0.005	—	282
Consumer Products	—	0.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.87	1.14	0.20	3.90	0.01	0.56	—	0.56	0.54	—	0.54	92.4	179	271	0.44	< 0.005	—	282
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.04	0.02	0.01	0.16	< 0.005	0.02	—	0.02	0.02	—	0.02	3.44	6.66	10.1	0.02	< 0.005	—	10.5
Consumer Products	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.21	0.21	< 0.005	< 0.005	—	0.21
Total	0.04	0.16	0.01	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	3.44	6.87	10.3	0.02	< 0.005	—	10.7

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.31	6.03	7.34	0.14	< 0.005	—	11.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.31	6.03	7.34	0.14	< 0.005	—	11.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.31	6.03	7.34	0.14	< 0.005	—	11.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.31	6.03	7.34	0.14	< 0.005	—	11.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.22	1.00	1.21	0.02	< 0.005	—	1.94
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.22	1.00	1.21	0.02	< 0.005	—	1.94

4.4.1. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.14	4.17	5.31	0.12	< 0.005	—	9.08
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.14	4.17	5.31	0.12	< 0.005	—	9.08
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.14	4.17	5.31	0.12	< 0.005	—	9.08
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.14	4.17	5.31	0.12	< 0.005	—	9.08
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.19	0.69	0.88	0.02	< 0.005	—	1.50
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.19	0.69	0.88	0.02	< 0.005	—	1.50

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.68
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.68

4.5.1. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	8.08	0.00	8.08	0.81	0.00	—	28.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.68
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.34	0.00	1.34	0.13	0.00	—	4.68

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.7.2. Mitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/1/2024	6/11/2024	5.00	7.00	—
Grading	Grading	6/18/2024	1/20/2025	5.00	155	—
Building Construction	Building Construction	1/21/2024	5/17/2025	5.00	345	—
Architectural Coating	Architectural Coating	5/17/2025	6/1/2025	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
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Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	7.50	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	4.00	HHDT,MHDT
Grading	Hauling	0.74	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	6.12	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	1.82	4.00	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.22	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	7.50	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	4.00	HHDT,MHDT
Grading	Hauling	0.74	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	6.12	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	1.82	4.00	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.22	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

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

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	67,129	22,376	0.00	0.00	366

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	3.50	0.00	—
Grading	128	783	116	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	0.19	0%
Other Non-Asphalt Surfaces	0.14	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

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

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	160	162	145	57,875	886	896	803	319,592
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	112	114	102	40,512	620	627	562	223,715
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	9
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	9

Conventional Wood Stoves	0
Catalytic Wood Stoves	1
Non-Catalytic Wood Stoves	1
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	9
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	9
Conventional Wood Stoves	0
Catalytic Wood Stoves	1
Non-Catalytic Wood Stoves	1
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
67128.75	22,376	0.00	0.00	366

5.10.3. Landscape Equipment

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

5.10.4. Landscape Equipment - Mitigated

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	158,892	204	0.0330	0.0040	661,509
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.11.2. Mitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	162,737	204	0.0330	0.0040	623,755
Other Non-Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	685,032	3,340,759
Other Non-Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	592,318	2,886,457
Other Non-Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	15.0	—
Other Non-Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	15.0	—
Other Non-Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

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

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	28.3	annual days of extreme heat
Extreme Precipitation	1.85	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
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Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	97.6
AQ-DPM	24.0
Drinking Water	87.6
Lead Risk Housing	25.8
Pesticides	87.6
Toxic Releases	99.9
Traffic	26.0
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	78.7
Haz Waste Facilities/Generators	23.7
Impaired Water Bodies	0.00
Solid Waste	25.7
Sensitive Population	—
Asthma	86.5
Cardio-vascular	56.5
Low Birth Weights	73.1
Socioeconomic Factor Indicators	—
Education	83.0
Housing	29.2
Linguistic	64.1
Poverty	65.7
Unemployment	65.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	26.20300269
Employed	68.92082638
Median HI	37.52085205
Education	—
Bachelor's or higher	16.10419607
High school enrollment	24.08571795
Preschool enrollment	9.213396638
Transportation	—
Auto Access	76.73553189
Active commuting	25.48440909
Social	—
2-parent households	54.98524317
Voting	8.764275632
Neighborhood	—
Alcohol availability	86.09008084
Park access	2.194276915
Retail density	20.28743744
Supermarket access	2.399589375
Tree canopy	10.17579879
Housing	—
Homeownership	71.32041576
Housing habitability	55.6268446
Low-inc homeowner severe housing cost burden	68.65135378
Low-inc renter severe housing cost burden	34.08186834
Uncrowded housing	22.82817914

Health Outcomes	—
Insured adults	17.56704735
Arthritis	60.6
Asthma ER Admissions	18.6
High Blood Pressure	47.4
Cancer (excluding skin)	80.0
Asthma	30.0
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	33.2
Diagnosed Diabetes	31.9
Life Expectancy at Birth	45.4
Cognitively Disabled	10.7
Physically Disabled	19.5
Heart Attack ER Admissions	21.7
Mental Health Not Good	24.7
Chronic Kidney Disease	55.3
Obesity	39.8
Pedestrian Injuries	19.6
Physical Health Not Good	30.0
Stroke	39.4
Health Risk Behaviors	—
Binge Drinking	77.5
Current Smoker	31.7
No Leisure Time for Physical Activity	13.9
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	20.9
Elderly	79.3
English Speaking	32.9
Foreign-born	75.5
Outdoor Workers	7.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	64.3
Traffic Density	13.0
Traffic Access	0.0
Other Indices	—
Hardship	80.9
Other Decision Support	—
2016 Voting	8.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	85.0
Healthy Places Index Score for Project Location (b)	24.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	NO LANDSCAPE PROPOSED YET
Construction: Construction Phases	NO DEMOLITION NEEDED, NO PAVING NEEDED

Mitigation Measure Monitoring Program for Plan Amendment-Rezone Application No. P21-05405 Vesting Tentative Tract Map No 6352

This Mitigation Monitoring and Reporting Program (MMRP) was formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the proposed Vesting Tentative Tract Map No. 6352 (project). The MMRP, which is found in Table A of this section, lists mitigation measures recommended in the IS/MND for the proposed project and identifies mitigation monitoring requirements. The MMRP must be adopted when the City Council makes a final decision on the proposed project.

This MMRP has been prepared to comply with the requirements of State law (Public Resources Code Section 21081.6). State law requires the adoption of an MMRP when mitigation measures are required to avoid significant impacts. This requirement facilitates implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process. The MMRP is intended to ensure compliance during implementation of the project.

The MMRP is organized in a matrix format. The first column identifies the mitigation measure. The second column, entitled "Mitigation Responsibility," refers to the party responsible for implementing the mitigation measure. The third column, entitled "Monitoring/Reporting Agency," refers to the agency responsible for oversight or ensuring that the mitigation measure is implemented. The fourth column, entitled "Monitoring Schedule," refers to when monitoring will occur to ensure that the mitigating action is completed. The fifth column, entitled "Verification," will be initialed and dated by the individual designated to verify adherence to the project specific mitigation.

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Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
I. AESTHETICS				
AES-4.1: Lighting for Street and Parking Areas. Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences.	Lighting systems to be confirmed during plan check, prior to issuance of building permits	Project Applicant and project architect	Public Works Department (PW) and Planning and Development Department	
AES-4.2: Lighting for Public Facilities. Lighting systems for public facilities such as active play areas shall provide adequate illumination for the activity; however, low intensity light fixtures and shields shall be used to minimize spillover light onto adjacent properties.	Lighting systems to be confirmed during plan check, prior to issuance of building permits	Project Applicant and project architect	PW and Planning and Development Department	
AES-4.5: Use of Non-Reflective Materials. Materials used on building facades shall be non-reflective.	Building materials to be used confirmed during plan check, prior to issuance of building permits.	Project Applicant and project architect	PW and Planning and Development Department	
II. AGRICULTURE AND FORESTRY RESOURCES				
There are no significant impacts to Agriculture and Forestry Resources				
III. AIR QUALITY				
AIR-2.1: Prior to future discretionary project approval, development project applicants shall prepare and submit to the Director of the	Assessments completed in conformance with	Project Applicant and qualified air	Planning and Development Department	

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
<p>City Planning and Development Department, or designee, a technical assessment evaluating potential project construction phase-related air quality impacts. The evaluation shall be prepared in conformance with SJVAPCD methodology for assessing construction impacts. If construction related air pollutants are determined to have the potential to exceed the SJVAPCD adopted threshold of significance, the Planning and Development Department shall require that applicants for new development projects incorporate mitigation measures into construction plans to reduce air pollutant emissions during construction activities. The identified measures shall be included as part of the Project Conditions of Approval. Possible mitigation measures to reduce construction emissions include but are not limited to:</p> <ul style="list-style-type: none"> • Install temporary construction power supply meters on site and use these to provide power to electric power tools whenever feasible. If temporary electric power is available on site, forbid the use of portable gasoline- or diesel-fueled electric generators. • Use of diesel oxidation catalysts and/or catalyzed diesel particulate traps on diesel 	<p>SJVAPCD methodology to be completed during environmental review and prior to approval of discretionary project. The City shall ensure that project-specific mitigation is incorporated into project plans for approval prior to issuance of any grading or construction permits.</p>	<p>quality consultant</p>		

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
<p>equipment, as feasible.</p> <ul style="list-style-type: none"> • Maintain equipment according to manufacturers' specifications. • Restrict idling of equipment and trucks to a maximum of 5 minutes (per California Air Resources Board [CARB] regulation). • Phase grading operations to reduce disturbed areas and times of exposure. • Avoid excavation and grading during wet weather. • Limit on-site construction routes and stabilize construction entrance(s). • Remove existing vegetation only when absolutely necessary. • Sweep up spilled dry materials (e.g., cement, mortar, or dirt track-out) immediately. Never attempt to wash them away with water. Use only minimal water for dust control. • Store stockpiled materials and wastes under a temporary roof or secured plastic sheeting or tarp. 				
IV. BIOLOGICAL RESOURCES				
There are no significant impacts to Biological Resources				
V. CULTURAL RESOURCES				
CUL-1.1: If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified	Planning and Development Department to review contract specifications	Project Applicant and qualified historical	Planning and Development Department	

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
<p>historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance. If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.</p> <p>No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.</p>	<p>to ensure inclusion of provisions included in project-specific mitigation measure. Following discovery of previously unknown resource, a qualified historical resources specialist shall prepare recommendations and submit to the Planning and Development Department. Timing for recommendations shall be established by project-specific mitigation measure.</p>	<p>resources specialist</p>		

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
<p>CUL-2: Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for prehistoric archaeological resources shall be conducted. The following procedures shall be followed.</p> <ul style="list-style-type: none"> If prehistoric resources are not found during either the field survey or literature search, excavation and/or construction activities can commence. In the event that buried prehistoric archaeological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. If the resources are determined to be unique prehistoric archaeological resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be 	<p>Cultural resources study to be completed during environmental review and prior to approval of discretionary project. The City shall ensure that project-specific mitigation is incorporated into project plans prior to project approval.</p>	<p>Project Applicant and qualified historical resources specialist</p>	<p>Planning and Development Department</p>	

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
<p>identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any prehistoric archaeological artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.</p> <ul style="list-style-type: none"> • If prehistoric resources are found during the field survey or literature review, the resources shall be inventoried using appropriate State record forms and submit the forms to the Southern San Joaquin Valley Information Center. The resources shall be evaluated for significance. If the resources are found to be significant, measures shall be identified by the qualified archaeologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for 				

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include an archaeological monitor. The monitoring period shall be determined by the qualified archaeologist. If additional prehistoric archaeological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.				
CUL-3: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native	Planning and Development Department to review construction specifications to ensure inclusion of provisions included in mitigation measure.	Project Applicant and qualified historical resources specialist	Planning and Development Department	

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.				
VI. ENERGY				
There are no significant impacts to Energy.				
VII. GEOLOGY AND SOILS				
GEO-6.1: Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for unique paleontological/geological resources shall be conducted. The following procedures shall be followed: <ul style="list-style-type: none"> If unique paleontological/geological resources are not found during either the field survey or literature search, excavation and/or 	City shall review preliminary grading plans prior to issuance of grading permits. If needed, a field survey or literature review shall occur prior to start of grading activities. Additional monitoring of project site during	Planning and Development Department	Planning and Development Department	

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
<p>construction activities can commence. In the event that unique paleontological/geological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified paleontologist shall be consulted to determine whether the resource requires further study. The qualified paleontologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to, excavation of the finds and evaluation of the finds. If the resources are determined to be significant, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any paleontological/geological resources recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow</p>	<p>construction period shall be determined by a qualified paleontologist and consistent with project-specific mitigation measure.</p>			

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
<p>future scientific study.</p> <ul style="list-style-type: none"> If unique paleontological/geological resources are found during the field survey or literature review, the resources shall be inventoried and evaluated for significance. If the resources are found to be significant, mitigation measures shall be identified by the qualified paleontologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include a paleontological monitor. The monitoring period shall be determined by the qualified paleontologist. If additional paleontological/geological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed. 				
VIII. GREENHOUSE GAS EMISSIONS				
There are no significant impacts to Greenhouse Gas Emissions				
IX. HAZARDS AND HAZARDOUS MATERIALS				

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/ Reporting Agency	Verification (Initials and Date)
There are no significant impacts to Hazards and Hazardous Materials				
X. HYDROLOGY AND WATER QUALITY				
There are no significant impacts to Hydrology and Water Quality.				
XI. LAND USE AND PLANNING				
There are no significant impacts to Land Use and Planning.				
XII. MINERAL RESOURCES				
There are no significant impacts to Mineral Resources				
XIII. NOISE				
There are no significant impacts to Noise				
XIV. POPULATION AND HOUSING				
There are no significant impacts to Population and Housing.				
XV. PUBLIC SERVICES				
There are no significant impacts to Public Services				
XVI. RECREATION				
There are no significant impacts to Recreation.				
XVII. TRANSPORTATION				
There are no significant impacts to Transportation.				
XVII. TRIBAL CULTURAL RESOURCES				
Mitigation Measures CUL-1.1, CUL-2 and CUL-3 included above in Section V, Cultural Resources, would apply to the project				
XIX. UTILITIES AND SERVICE SYSTEMS				
There are no significant impacts to Utilities and service systems..				

Table A: Mitigation Monitoring and Reporting Program

MITIGATION MEASURE	Timing for Mitigation Measure	Mitigation Responsibility	Monitoring/Reporting Agency	Verification (Initials and Date)
XX. WILDFIRE				
There are no significant impacts to Wildfire.				
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
There are no significant impacts related to the mandatory findings of significance.				

Source: City of Fresno ([October 2023]).