General Plan Amendment GPA2023-002 & Rezone R2023-002

Initial Study and Mitigated Negative Declaration

December 2023

PREPARED BY:

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INITIAL STUDY

This Initial Study was prepared pursuant to the California Environmental Quality Act (CEQA) Public Resources Code Sections 21000 *et seq*., CEQA Guidelines Title 14, Section 15000 et seq. of the California Code of Regulations.

PROJECT TITLE:	GPA2023-002 & R2023-002
LEAD AGENCY NAME AND ADDRESS:	City of Clovis Planning & Development Services 1033 Fifth Street Clovis, CA 93612
CONTACT PERSON AND PHONE NUMBER:	McKencie Perez, Senior Planner (559) 324-2310 mckenciep@cityofclovis.com
PROJECT LOCATION:	3182 De Wolf Avenue Clovis, CA 93619 APN: 555-042-70
PROJECT SPONSOR'S NAME AND ADDRESS:	Harpreet Singh Sumal 3182 De Wolf Avenue Clovis, CA 93619
LAND USE DESIGNATION:	Existing – Low Density Residential & Open Space Proposed – High Density Residential
ZONING DESIGNATION:	Existing – R-A (Single-Family Residential Very Low Density) Proposed – R-3 (Multifamily High Density)
PROJECT DESCRIPTION	See page 7 of this Initial Study
SURROUNDING LAND USES AND SETTING:	See page 6 of this Initial Study
REQUIRED APPROVALS:	See page 8 of this Initial Study
HAVE CALIFORNIA NATIVE AMERICAN TRIBES REQUESTED CONSULTATION? IF SO, HAS CONSULTATION BEGUN?	Tribes did not request consultation.

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LIST OF FIGURES

A. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and corresponding discussion in this Initial Study.

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

Determination

On the basis of this initial evaluation:

☐ I find that the proposed Project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☒ I find that, although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponents. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed Project MAY have a significant effect on the environmental, and an ENVIRONMENTAL IMPACT REPORT (EIR) will be prepared.

☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environmental, 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.

☐ 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 analyzed 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.

Prepared By:

_____ _____

McKencie Perez, MPA, Senior Planner — Date
Planning & Development Services
City of Clovis

Approved By:

_____ _____

Renee Mathis, Director — Date
Planning & Development Services
City of Clovis

B. PROJECT OVERVIEW

Kelsey George of Precision Civil Engineering (applicant) proposes to redesignate the subject property from the Low Density Residential and Open Space land use designations to the High Density Residential land use designation. The applicant also proposes to rezone the subject property from the R-A (Single-Family Residential Very Low Density) zone district to the R-3 (Multifamily High Density) zone district. These applications will facilitate the development of a 26-unit multifamily residential complex. The complex will include site improvements (i.e., landscaping, parking, sidewalks, and utilities infrastructure). The project shall be referred to throughout the document as "proposed Project" and/or "Project." Details regarding the Project and operations are described more throughout the Initial Study, beginning under Section E.

The subject property is approximately 1.62 acres and is located on the northwest corner of Ashlan and De Wolf Avenues in the City of Clovis, California.

C. PROJECT LOCATION

As shown in Figure 1 below, the Project is located on the northwest corner of Ashlan and De Wolf Avenues and is approximately 1.62 acres in area. The Project will occupy the entire parcel with Accessor's Parcel Number (APN) 555-042-70.

D. EXISTING SETTING

This section describes the existing conditions, surrounding conditions, as well as the General Plan land use and zoning designations.

1. EXISTING CONDITIONS

As shown in Figure 1 below, the site is developed with a single-family residence and swimming pool. The residence is currently occupied. The rest of the site is undeveloped.

2. SURROUNDING CONDITIONS

As referenced below in Table 1, and shown on Figure 1, the Project site is surrounded by existing residential development to the north, west, and south and a school to the east.

Table 1: Surrounding Land Uses

	Land Use Designation	Existing Zoning*	Existing Land Use
North	Low Density Residential	R-A	Single-Family Residence
East	School and Open Space	P-F	School
South	Low Density Residential and Open Space	R-1-7500	Single-Family Residences
West	Low Density Residential and Open Space	R-A	Single-Family Residence
*R-A (Single-Family Residential Very Low Density), P-F (Public Facilities), R-1-7500 (Single-Family Residential – 7,500 square feet)			

3. LAND USE DESIGNATION

As shown on Figure 2, the Project site has existing General Plan Land Use designations of Low Density Residential and Open Space. The Low Density Residential designation allows for single-family residential development at a density of 2.1 to 4.0 dwelling units per acre and the Open Space designation allows passive and active opens space (i.e., trails). The applicant proposes to amend the General Plan Land Use to High Density Residential that allows for residential development with a density of 15.1 – 25.0 dwelling units per acre.

4. ZONING DESIGNATION

As shown on Figure 3, the Project site is currently zoned R-A (Single-Family Residential Very Low Density), however, proposes a rezone to the R-3 Zone District (Multifamily High Density). The R-3 Zone District is consistent with the proposed High Density land use designation.

E. PROJECT DESCRIPTION

The subject parcel is a ± 1.62 acre urban in-fill property designated for Low Density Residential development in the City of Clovis General Plan. The applicant is proposing to redesignate and rezone the project site to allow for the development of a multifamily complex. The Project proposes 26 apartment units that are all designated for market rate rent. The Project consists of three buildings to accommodate the 26 units, two carport structures for parking, associated landscaping, and utility and pedestrian infrastructure.

This section describes the components of the proposed Project in more detail, including site preparations, proposed structures, and on- and off- site improvements.

1. PROJECT ENTITLEMENTS

The Project would include several planning entitlements, including a general plan amendment, rezone, and multiple family design review. The general plan amendment is to redesignate the property from the Low Density Residential designation to the High Density Residential designation, the rezone is to bring the zoning into consistency with the proposed general plan land use designation, and the multiple family design review is required to memorialize the design and layout of the buildings (to be submitted at a later date).

2. PROJECT CONSTRUCTION AND PHASING

The Project is anticipated to begin construction spring of 2024 with full buildout by winter of 2025.

3. SITE PREPARATION

Site preparation would include the demolition of the existing structure and filling of the swimming pool and typical grading activities to ensure an adeuqatley graded site for drainage purposes. Part of the preparation would include the removal of any vegetation, crops, and trees necessary to accommodate the Project. Other site preparation activities would include minor excavation for the installation of utility infrastructure, for coneyance of water, sewer, stormwater, and irrigation.

4. PROJECT COMPONENTS

This section describes the overall components of the Project, such as the proposed buildings, landscape, vehicle and pedestrian circulation, and utilities.

DEMOLITION

The existing residence will be demolished to accommodate the Project.

CONCEPTUAL SITE LAYOUT AND ELEVATIONS

While this section discusses the general site layout and elevations, it is important to note that the actual site will be reviewed more fully during the City's Multi-Family Design Review process. As shown in Figure 4, the Project proposes construction of three buildings to accommodate the 26 apartment units. There will also be two structures designated for carports. The apartment buildings are situated towards the street frontages and center of the site, while the carport structures and parking are towards the rear of the site, along the north and west elevations.

Conceptual elevations for the apartment building are shown in Figure 5, respectively. As shown, the apartment building is two stories. Although conceptual at this time, the exterior includes a mixture stucco,

wood siding and stone veneer. Development of the project will be in accordance with the City of Clovis' Multifamily Objective Standards and the R-3 Zone District standards.

SITE CIRCULATION AND PARKING

The Project would be accessed via two (2) points of ingress/egress from Ashlan and De Wolf Avenues. On-site parking would be provided per the Clovis Municipal Code (CMC) standards for parking spaces for multi-family development. Although 60 vehicle spaces are proposed, the final parking calculation will be reviewed during the City's Multi-Family Design Review process. Installation of pedestrian paths of travel would be required as part of the Project from the Ashlan and De Wolf Avenue frontages. Although the details have not yet been provided, these features would be per City of Clovis Development Code standards and/or in compliance with Americans with Disabilities Act requirements. There will also be a gateway entrance at the southeast area of the site.

LANDSCAPE

The Project would include landscape throughout the site. Landscaped areas would generally be located along the frontage of each structure where a variety of ornamental shrubs, plants, and trees would be planted, as well as landscape in areas throughout the parking lots, consistent with the CMC. Landscape plans are typically provided during the City's Multi-Family Design Review process at which time the proposed landscape would be reviewed for compliance with the City's water efficient landscape regulations and guidelines.

UTILITIES

Utilities for the site would consist of water, sewer, electric, cable, gas, and stormwater infrastructure. Minor trenching and digging activities would be required for the installation of necessary pipelines typical of development. All utility plans would be required to be reviewed and approved by the appropriate agency, and/or department to ensure that installation occurs to pertinent codes and regulations. Other infrastructure would include new fire hydrants as required by the City of Clovis Fire Department.

Utilities are provided by and managed from a combination of agencies, including the Fresno Irrigation District (FID), which provides the City's water supply which is then supplied to customers by the City of Clovis, Fresno Metropolitan Flood Control District (FMFCD) which has responsibility for storm water management, and the City's public utilities department which provides for solid waste collection, and sewer collection services. Pacific Gas & Electric (PG&E) provides electricity and natural gas within the City of Clovis.

F. REQUIRED PROJECT APPROVALS

The City of Clovis requires the following review, permits, and/or approvals for the proposed Project; however, other approvals not listed below may be required as identified throughout the entitlement process:

- General Plan Amendment
- Rezone
- Multi-Family Design Review
- Grading Permit
- Building Permit
- Sign Permit
- San Joaquin Air Pollution Control District
- Fresno Metropolitan Flood Control District

G. TECHNICAL STUDIES

The analysis of the Project throughout this Initial Study relied in part on the technical studies listed below prepared for the Project, as well as other sources, including, but not limited to, the 2014 Clovis General Plan EIR, departmental staff, California Department of Conservation, and the California Department of Toxic Control Substances.

- **Appendix A:** Air Quality and Greenhouse Gas Analysis Memorandum dated October 13, 2023
- **Appendix B:** Biological Resources Assessment dated August 2022
- **Appendix C:** Archaeological Resources Survey Assessment dated August 22, 2022
- **Appendix D:** Water Infrastructure Investigation dated September 1, 2023
- **Appendix E:** Trip Generation Analysis and Vehicle Miles Traveled Analysis dated August 22, 2022
- **Appendix F:** Historical Resources Evaluation dated August 23, 2022
- **Appendix G:** Wastewater Service Study dated September 5, 2023, and amended October 27, 2023

Figure 1: Project Location and Existing Conditions

Figure 2: General Plan Land Use Designations

Figure 3: Zoning

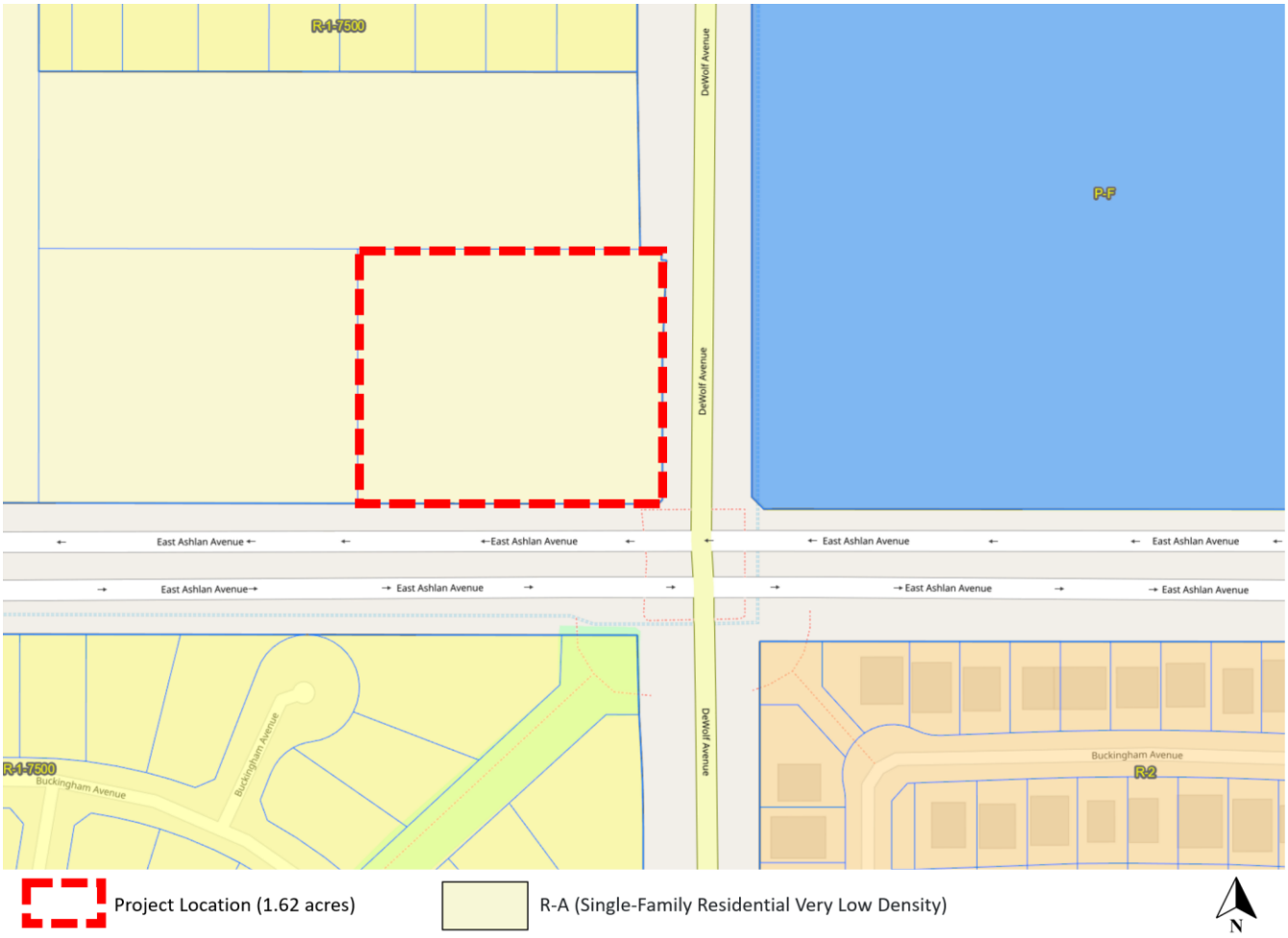

Figure 4: Conceptual Site Plan

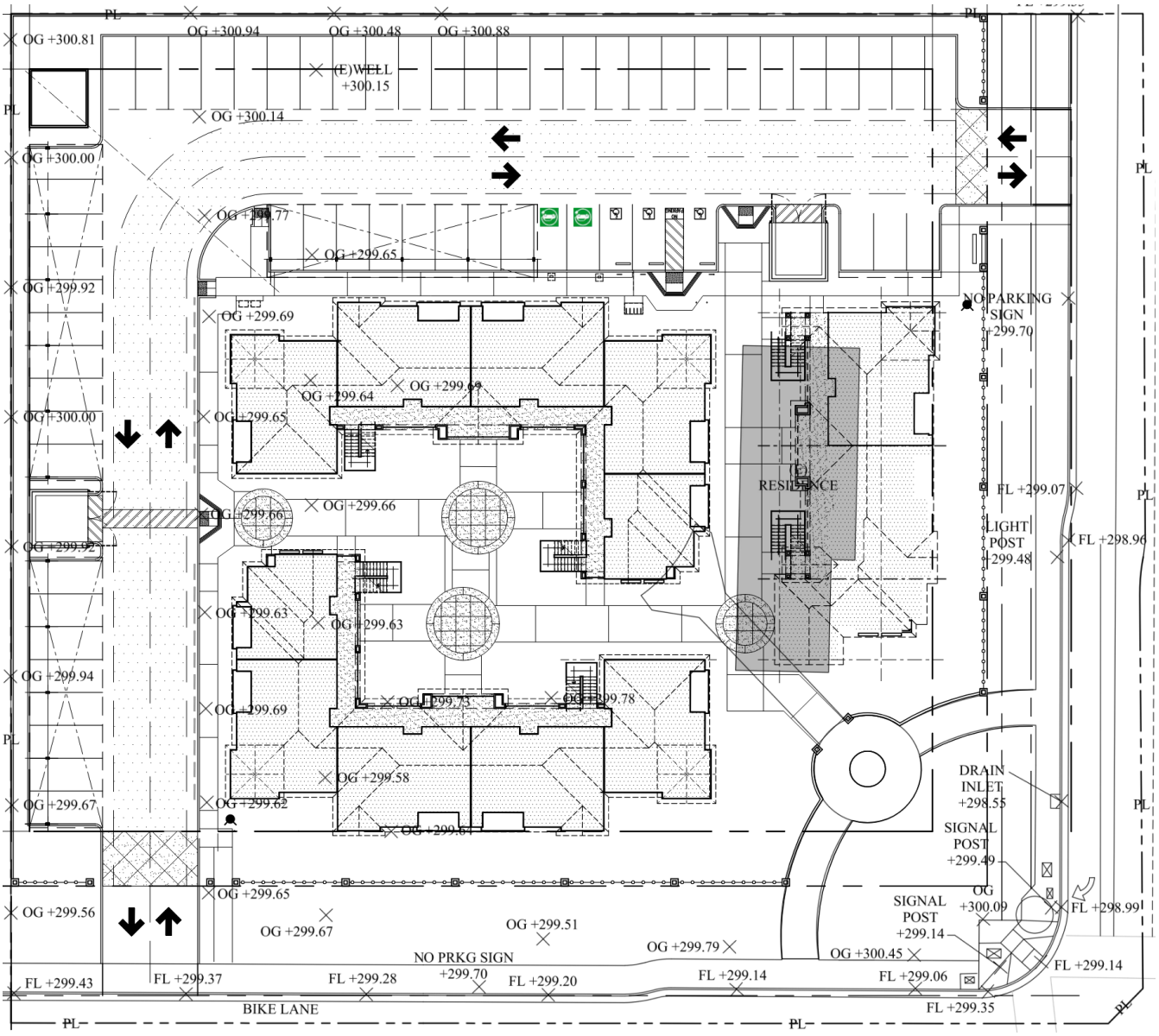

Figure 5: Conceptual Elevations

H. ENVIRONMENTAL CHECKLIST

This section provides an evaluation of the potential environmental impacts of the proposed project and are based on CEQA Guidelines Appendix G. For each issue area, one of four conclusions is made:

- **No Impact**: No project-related impact to the environment would occur with project development.
- **Less Than Significant Impact:** The proposed project would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.
- **Less Than Significant with Mitigation Incorporated**: The proposed project would result in an environmental impact or effect that is potentially significant, but the incorporation of mitigation measure(s) would reduce the project-related impact to a less than significant level.
- **Potentially Significant Impact**: The proposed project would result in an environmental impact or effect that is potentially significant, and no mitigation can be identified that would reduce the impact to a less than significant level**.**

1. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Have a substantial 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. 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?			X	
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?		X		

ENVIRONMENTAL SETTING

The City of Clovis is located within the San Joaquin Valley. Thus, much of the City and its surrounding areas are predominately flat. As a result, on clear days, the Sierra Nevada Mountains are visible to the east depending on your location. Aside from Sierra Nevada, there are no officially designated focal points or viewsheds within the City. However, Policy 2.3, Visual Resources, of the Open Space Element of the 2014 Clovis General Plan, requires maintaining public views of open spaces, parks, and natural features and to preserve Clovis' viewshed of the surrounding foothills.

As mentioned above in the Project Description, the site is located on the northwest corner of Ashlan and De Wolf Avenues. In general, the Project site is within an urbanized area of the City surrounded by existing residential to the north, west and south, as well as a school east of the site. As a result, the area is characterized

by a mix of development types and uses, as well as typical infrastructure, such as roadways, streetlights, parking lot lights, and ambient light sources typical of residential development.

DISCUSSION

a) *Would the project have a substantial effect on a scenic vista?*

Less-Than-Significant Impact. As mentioned above, there are no officially designated scenic vistas or focal points in the City of Clovis. While the Sierra Nevada Mountains can be viewed on clear days, the Project would be consistent with the proposed R-3 zone district standards, which allows structures to be constructed at a maximum height of 35 feet. General Plan Policy 2.3 requires that public views of open spaces, parks, and natural features be maintained; however, the Project site is not within the immediate vicinity of these features. Therefore, the Project shall be constructed at a maximum height consistent with the proposed R-3 Zone District and surrounding R-A Zone District development standards, a **less-than-significant impact** would occur with regards to the Project having a substantial effect on a scenic vista.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

No Impact. As stated in the 2014 Clovis General Plan EIR, there are no Caltrans-designated scenic highways within the City of Clovis.[1] Further, there are no existing historical structures or rock outcroppings located on or within the immediate vicinity of the site, therefore, the Project would result in **no impact** with regards to substantially damaging scenic resources within a State scenic highway.

c) *Would the project 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?*

Less-Than-Significant Impact. As mentioned previously, the existing site is within an urbanized area surrounded by primarily residential land uses and a school. Thus, the area is generally characterized by different types of structurers at varying heights, design, and character. The Project proposes to construct three buildings to accommodate the 26 units, as well as two structures for carports. Such uses would not substantially degrade from the existing visual character or quality of public views of the site and its surroundings. Further, as mentioned above, there are no officially designated scenic areas in the City, and none specifically at or surrounding the site itself.

In addition, the Project structures would be within the permitted height under the proposed R-3 Zone District and surrounding R-A Zone District. Thus, the Project is within the scale and character of the area and would not substantially degrade the existing visual character. Lastly, the Project would undergo a site plan review through the Multi-Family Design Review process, which would ensure that the overall design and character is consistent and/or complements the surrounding areas. The process will ensure the Project complies with relevant design policies, such as General Plan, Multifamily Objective Standards, and the Clovis Development Code. During the review, the height, color and materials are reviewed for consistency with these plans and guidelines. Consequently, a **less-than-significant** impact would occur with regards to substantially degrading the existing visual character of the site and its surroundings.

[1] 2014 Clovis General Plan EIR, June 2014, Page 5.1-1.

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

Less-Than-Significant Impact With Mitigation. The Project consists of a multifamily residential complex. The proposed Project would introduce new sources of light and glare. Light and glare from the Project would be typical of a multifamily residential type of development, which may include sources such as exterior lighting for safety, and light and glare from vehicles reflecting from surfaces such as windshields. Other sources of light would be the interior lighting of the buildings at night. These sources of light and glare are not typically associated with causing significant effects on the environment. Further, the site is already surrounded by existing uses, such as single-family residences and a school, which as a result has established existing sources of light and glare. These sources of existing light and glare are comprised of streetlights, exterior and interior light and glare from existing homes, and from vehicles going to and from the neighborhood. Other sources of existing light and glare derive from vehicles travelling along Ashlan and De Wolf Avenues.

Although the Project would introduce new sources of light and glare, the Multi-Family Design Review process would ensure that the design and placement of lighting is appropriate to minimize potential light and glare impacts to surrounding properties. In addition, compliance with Mitigation Measure AES-1 would ensure that light and glare impacts be **less-than-significant with mitigation**.

> Mitigation Measure AES-1: The Project shall comply with Section 9.22.050, Exterior Light and Glare, of the Clovis Municipal Code, which requires light sources to be shielded and that lighting does not spillover to adjacent properties.

2. AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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)) or timberland (as defined in Public Resources Code section 4526)?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
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				X

conversion of forest land to non-forest use?				

ENVIRONMENTAL SETTING

The Project site is located on the northwest corner of Ashlan and De Wolf Avenues and considered an in-fill property. The site is within an urbanized area of the City and is surrounded by a mix of existing development types.

DISCUSSION

a) *Would the project 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?*

No Impact. The project site is not Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). The site is designated as Rural Residential Land by the Department of Conservation.[2] The Project site is currently used as a single-family residence. The Project proposes to redevelop the site as a multifamily residential complex.

b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?*

No Impact. As shown in Figure 5.2-2 of the Agricultural Resources Chapter of the 2014 Clovis General Plan EIR, the Project site is not under a Williamson Act Contract. Further, the site is not currently zoned or designated for agricultural use. As a result, the Project would have **no impact** with regards to conflicting with existing zoning for agricultural use or a Williamson Act Contract.

c) *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)) or timberland (as defined in Public Resources Code section 4526)?*

No Impact. The Project site does not contain forest land. Further, the site is not zoned for forestry or other forestry related uses. As a result, **no impact** would occur with regards to conflicts with existing zoning for, or cause rezoning of, forest land.

d) *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. See discussion under Section 2c.

e) *Would the project 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?*

No Impact. See discussion under Section 2a.

[2] Department of Conservation - https://maps.conservation.ca.gov/DLRP/CIFF/, July 2023.

3. AIR QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?		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?			X	
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	

ENVIRONMENTAL SETTING

An Air Quality and Greenhouse Gas Analysis Memorandum (AQ/GHG Memo) was prepared by LSA Associates Inc. (LSA) on October 13, 2023 (see Appendix A). Information in this AQ/GHG Memo is used for the analysis included in both the Air Quality and Greenhouse Gas Emissions section of this Initial Study.

San Joaquin Valley Air Basin

The City of Clovis (City) is in the central portion of the San Joaquin Valley Air Basin (SJVAB). SJVAB consists of eight counties: Fresno, Kern (western and central), Kings, Tulare, Madera, Merced, San Joaquin, and Stanislaus. The SJVAB is approximately 25,000 square miles. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. The valley is topographically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay.

Topography

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants and can channel air from upwind areas that transports pollutants to downwind areas. The San Joaquin Valley Air Pollution Control District (SJVAPCD) covers the entirety of the SJVAB. The SJVAB is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Climate

The SJVAB is in a Mediterranean climate zone and is influenced by a subtropical high-pressure cell most of the year. Mediterranean climates are characterized by sparse rainfall, which occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100°F in the valley.

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface.

Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500–3,000 feet).

Winter-time high pressure events can often last many weeks, with surface temperatures often lowering into the 30°F. During these events, fog can be present, and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet.

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 CAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National Air Quality Standards (AAQS) and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors,” those most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health based AAQS for six air pollutants. As shown in Table 3, Ambient Air Quality Standards for Criteria Pollutants, these pollutants are carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter ($PM_{2.5}$ and PM_{10}). In addition, the state has set standards for sulfates and hydrogen sulfide. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to the criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated based on risk rather than specification of safe levels of contamination.

Attainment Status

The air quality management plans prepared by SJVAPCD provide the framework for SJVAB to achieve attainment of the state and federal AAQS through the State Implementation Plan. Areas are classified as attainment or nonattainment areas for pollutants, depending on whether they meet the ambient air quality standards. Nonattainment areas are imposed with additional restrictions as required by the United States Environmental Protection Agency. There are different classifications for attainment and the severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme. These classifications are used as a foundation to create air quality management strategies to improve air quality and comply with the National AAQS.

Table 2: Air Quality Attainment Status for Fresno County

Pollutant	State	Federal
Ozone (1-hour)	Sever/Nonattainment	Standard Revoked
Ozone (8-hour)	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	No Federal Regulation
Hydrogen Sulfide	Unclassified	No Federal Regulation

DISCUSSION

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Less-Than-Significant Impact With Mitigation. Although the CEQA Guidelines indicate that a significant impact would occur if the Project were to conflict with or obstruct implementation of the applicable air quality plan, the SJVAPCDs 2015 Guide for Assessing and Mitigating Air Quality Impacts does not provide specific guidance on analyzing conformity with the plan. Thus, for purposes of analyzing this potential impact, the AQ/GHG Memo considered impacts based on: (1) whether the Project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards; and (2) whether the Project will comply with applicable control measures in the air quality plan, primarily compliance with Regulation VIII – Fugitive PM_{10} Prohibitions and Rule 9510 – Indirect Source Review.

In general, regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Thus, individual projects are generally not large enough to contribute measurably to an existing violation or air quality standards alone. Therefore, in order to analyze this threshold, and because of the region's existing nonattainment status for several pollutants, the Project would be considered to cause significant impacts if it were to generate emissions that would exceed the SJVAPCD's significance thresholds. The District's annual emission significance thresholds are as follows:

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

Based on the AQ/GHG Memo, the Project would not exceed these thresholds from construction and operation of the Project (As Shown in Table 4).[3] Further, any impacts related to the construction activities of the Project, such as dust control, would be regulated through the SJVAPCD, which require measures such as frequent watering of the site during construction to minimize dust.

[3] Air Quality and Greenhouse Gas Analysis Memorandum, LSA, August 22, 2022.

Table 4: CO, NO_x, ROG, PM_{10}, $PM_{2.5}$ Thresholds, Maximum

Emission Source (Tons Per Year)	**CO**	**NO_x**	**ROG**	**PM_{10}**	**$PM_{2.5}$**
Construction Emissions	1.7	2.1	0.4	0.1	0.1
Operational Emissions	1.0	0.2	0.2	0.2	0.1
Total Emissions	**2.7**	**2.3**	**0.6**	**0.3**	**0.2**
Significance Threshold	100	10	10	15	15
Exceed threshold – significant impact?	No	No	No	No	No

Notes:
ROG = reactive organic gases
NO_x = nitrous oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size

The SJVAPCD has reviewed the proposed project and determined the project size is below the Rule 9510 (Indirect Source Review) threshold, therefore the requirement of Rule 9510 do not apply. The Project will be subject to other air quality regulations, including Regulation VIII (Fugitive PM_{10} Prohibitions), which requires a Construction Notification Form or approval of a Dust Control Plan prior to construction.

Consequently, implementation of mitigation measure AIR-1 would ensure that a **less-than-significant impact with mitigation** occurs.

Mitigation Measure AIR-1: Consistent with SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions), the following controls are required to be included as specifications for the proposed project and implemented at the construction site:

- All disturbed areas, including storage piles, which are note being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant or covered with a tarp or tother suitable cover or vegetative ground cover.

- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.

- When materials are transported off site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)

- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

b) *Would the project 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?*

Less-Than-Significant Impact. See discussion under Section 3a above.

c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less-Than-Significant Impact With Mitigation. Sensitive receptors are generally considered to include children, the elderly, and persons with pre-existing respiratory and cardiovascular illness. The SJVAPCD considers a sensitive receptor a location that houses or attracts children, the elderly, or people with illnesses. Examples of these receptors are hospitals, residences, schools and school facilities, and convalescent facilities. The nearest sensitive receptors to the Project site would be the existing residences adjacent to the site to the north and west, in addition to the school to the east.

Construction may expose the sensitive receptors to airborne particulates. A construction health risk assessment (HRA)[4] was performed as part of the AQ/GHG Memo for the proposed project. Based on the HRA, unmitigated health risks from the project construction would exceed the SJVAPCD thresholds. With the implementation of mitigation measure AIR-2, construction of the proposed project would not exceed the SJVAPCD thresholds and would ensure that a **less-than-significant impact with mitigation** occurs.

> Mitigation Measure AIR-2: During construction of the proposed project, the project contractor shall ensure all off-road diesel-powered construction equipment of 50 horsepower or more used for the project construction at a minimum meets the California Air Resources Board Tier 4 Final emissions standards or equivalent. Verification shall be provided to the City of Clovis for confirmation.

d) *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Less-Than-Significant Impact. Generally, sources considered to emit odors are associated with wastewater treatment facilities, sanitary landfills, petroleum refineries, chemical manufacturing, and other industrial/manufacturing related uses. The Project would include a multifamily residential complex thus, is unlikely to produce odors that would be considered to adversely affect a substantial number of people. Further, there are no major odor-generating sources within screening distance of the site. Although some odors would be emitted through the construction of the Project, such as diesel fuel and exhaust from construction equipment, these odors would be temporary in nature and last only during construction activities. Further, the types of uses allowed in the R-3 zone district, such as a multifamily development, are not generally considered to be odor-causing uses that would adversely affect a substantial number of people. Overall, a **less-than-significant** impact would occur.

4. BIOLOGICAL RESOURCES

Would the project:	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		X		

[4] Air Quality and Greenhouse Gas Analysis Memorandum, LSA, October 13, 2023, pages 19-21.

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

ENVIRONMENTAL SETTING

A Biological Resources Assessment (BRA) was prepared by LSA in August 2022 (see Appendix B). This BRA included a literature review and records search to identify the existence and potential for occurrence of sensitive or special-status plant and animal species in the project vicinity. The site is flat and utilized as a single-family residence with portions of the undeveloped site supporting ruderal vegetation.

DISCUSSION

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

Less-Than-Significant Impact With Mitigation. As described in the BRA, the site was developed and is surrounded by substantial development. The site comprises of an existing single-family residence and no natural plant communities occur in the area of the Project site.[5] No special-status wildlife species or diagnostic signs of special-status wildlife species were present on the Project site, however, may be marginally suitable for isolated habitat for several regionally occurring special-status species (burrowing owl and Swainson's hawk). Mature trees on the site could provide suitable nesting habitat for tree-nesting species. During the May 2022 survey of the site, there were no signs indicating occupation by these species.

[5] Biological Resources Assessment prepared by LSA dated August 2022, page 7.

Implementation of mitigation measure BIO-1, BIO-2, and BIO-2a would ensure that a **less-than-significant impact with mitigation** occurs.

Mitigation Measure BIO-1: **Conduct Preconstruction Clearance Surveys for Burrowing Owl.** A preconstruction clearance survey is required for burrowing owl no more than 30 calendar days prior to initiation of project activities. All survey results must be delivered to the City of Clovis. If an active burrowing owl burrow is found within the project site, the applicant must coordinate with California Department of Fish and Wildlife (CDFW) to obtain applicable agency approval/direction prior to any ground direction prior to any ground disturbance activities on the site. Specific avoidance, den excavation, passive relocation, and compensatory mitigation activities shall be performed as required by CDFW. If no active burrowing owl burrows are identified, project activities may proceed as planned following the preconstruction survey.

Mitigation Measure BIO-2: **Nesting Bird Surveys and Avoidance.** If vegetation trimming/removal, construction, or grading activities are planned to commence within the active nesting bird season (February 15 through September 30), a qualified biologist shall conduct a preconstruction nesting bird survey no more than five days prior to the start of such activities. The nesting bird survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active by the qualified biologist. Documentation of all survey results shall be provided to the City.

Mitigation Measure BIO-2a: **Compensatory Mitigation for Swainson's Hawk.** If an occupied Swainson's hawk nest site is found within the project development limits during implementation of Mitigation Measure 2, the Applicant shall not proceed with any construction-related activities on the project site until the CDFW has been consulted regarding the need to obtain an incidental take permit under the California Endangered Species Act. Impacts will be minimized through permitting with CDFW and will be fully mitigated in accordance with CDFW requirements.

b) *Would the project 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 Game or US Fish and Wildlife Service?*

Less-Than-Significant Impact. As mentioned previously, the Project site has ornamental plants with some ruderal plant species scattered throughout. There are no riparian habitats or sensitive natural communities identified at the site, nor are there any identified in local or regional plans. Therefore, the Project would not result in a substantial adverse effect with respect to this threshold, and a **less-than-significant** impact would occur.

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

No Impact. Based on the Biological Resources Assessment prepared for the Project, no wetland features are known to exist at the Project site.

d) *Would the project 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?*

No Impact. The Biological Resources Assessment did not identify the site as a regional or local wildlife movement corridors.[6] Further, wildlife corridors typically serve as areas that wildlife traverse in order to migrate from one habitat to another and because the site is infill and surrounded by urban development, the site is unlikely to serve as any sort of wildlife corridor. Thus, **no impact** would occur.

e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Less-Than-Significant Impact. The Project site does not indicate the presence of any sensitive habitat or wildlife features that would be significantly impacted. Although Policy 2.6 of the Open Space and Conservation Element of the 2014 General Plan calls for the protection of biological resources, the BRA did not identify any such resources at the site due to its location and being surrounded by urban development. The Clovis Development Code does include tree removal permit requirements. However, developed single-family residential properties are exempt from the tree removal permit process. Consequently, due to the lack of any identified sensitive species, and because the Project is exempt from the tree protection ordinance, the impact would be **less-than-significant**.

f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

No Impact. The City and Fresno County currently do not have a regional Natural Community Conservation Plan or a Habitat Conservation Plan. The Project site is subject to relevant biological resource policies of the 2014 General Plan. Therefore, there are no impacts to conservation plans. Overall, **no impact** would occur.

5. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?		X		
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c. Disturb any human remains, including those interred outside of formal cemeteries?		X		

[6] Biological Resources Assessment prepared by LSA, August 2022, page 5.

ENVIRONMENTAL SETTING

The Project site is located on a disturbed and developed site. The site has an existing single-family residence and is surrounded by existing residential development as well as a school. An Archaeological Resources Survey (ARS) was prepared by LSA dated August 22, 2022 (See Appendix C). The ARS was based on information obtained at the Southern San Joaquin Valley Information Center, California State University, Bakersfield, as well as review of other surveys conducted in the area. Based on the ARS, no cultural resources have been recorded within one-half mile of the Project Site.

DISCUSSION

a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Less-Than-Significant Impact With Mitigation. As previously mentioned, the Project site is developed with an existing residence. A cultural resource records search was conducted within one-half mile of the Project. The search indicated that the subject property had one previous cultural resources study that included a portion of the site. However, the ARS concluded that based on the results of the records search findings and lack of archeological resources previously identified within a one-half mile radius of the Project, the potential to encounter subsurface cultural resources is minimal.[7] Further, compliance with Policy 2.9 of the General Plan, which calls for the preservation of historical sites and buildings of state or national significance, would ensure that if there were historical resources present, they would be protected. Because there is the slight possibility for the accidental or inadvertent uncovering of archaeological resources during construction, Mitigation Measure CULT-1 would serve to reduce those potential impacts by requiring any work to stop until any found artifacts can be properly removed and inventoried by a qualified archaeologist. Therefore, regarding the Project causing a substantial adverse change in the significance of a historical resource the Project would result in a **less-than-significant impact with mitigation.**

> Mitigation Measure CULT-1: If prehistoric or historic-era cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.
>
> If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.
>
> If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

[7] Archaeological Resources Survey Assessment by LSA, August 22, 2022, page 2.

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less-Than-Significant Impact With Mitigation. The site is developed with an existing residence and is surrounded by existing urban development. The site's ground has been previously disturbed as a result of the agriculture, and residential uses and other ground disturbing activities throughout the years. Nevertheless, the potential remains that archeological resources could be inadvertently or accidentally uncovered during ground-disturbing activities such as trenching, digging, and the installation of utilities and other infrastructure.

Because there is the slight possibility for the accidental or inadvertent uncovering of archaeological resources during construction, Mitigation Measure CULT-1 would serve to reduce those potential impacts by requiring any work to stop until any found artifacts can be properly removed and inventoried by a qualified archaeologist. Therefore, the Project would result in a **less-than-significant impact with mitigation**.

c) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Less-Than-Significant Impact With Mitigation. The site is developed with an existing residence and is surrounded by existing urban developed. The site's ground has been previously disturbed as a result of the agriculture, and residential uses and other ground disturbing activities throughout the years. Nevertheless, the potential remains that human remains could be inadvertently or accidentally uncovered during ground-disturbing activities such as trenching, digging, and the installation of utilities and other infrastructure.

Because there is the slight possibility for the accidental or inadvertent uncovering of human remains during construction, Mitigation Measure CULT-2 would serve to reduce those potential impacts by requiring any work to stop until any found human remains can be properly removed by the County coroner and/or tribes. Therefore, the Project would result in a **less-than-significant impact with mitigation**.

> Mitigation Measure CULT-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.

6. ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in a 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	

ENVIRONMENTAL SETTING

The Project is located on an infill site surrounded by existing urban uses, primarily residential and educational.

DISCUSSION

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

Less-Than-Significant Impact. The Project proposes the construction of a multifamily residential complex. Construction of such structures would require site preparation, grading, paving, architectural coating, and trenching. Construction would consist of typical activities for construction projects and therefore would not require use of new resources. While such activities would consume petroleum-based fuels, such consumption would be temporary and conclude upon completion of construction. The proposed Project in operation would be served by PG&E and would not require extensions of energy infrastructure or new energy supplies. As previously mentioned, the Project is located on an infill site surrounded by existing urban uses. Sources of operational energy consumption would include natural gas and/or electricity for space and water heating and transportation fuels (i.e., gasoline and diesel) for vehicle trips. Further, the multifamily use would be subject to compliance with the latest energy efficiency standards in effect at the time of development and operation. This would include compliance with Title 24 Green Building Standards for energy efficiency, as well as be required to comply with the latest water efficient landscape policy regulations. Further, the Project would be required to comply with Clovis General Plan Policies 3.4 and 3.7 of the Open Space and Conservation, which call for the use of water conserving and drought tolerant landscape, as well as energy efficient buildings. Conformance to these standards would be reviewed during the City's Multi-Family Design Review process and during review of building plans.

Consequently, compliance with these policies would ensure that the Project does not result in a significant impact due to the unnecessary consumption of energy and **less-than-significant** impact would occur.

b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less-Than-Significant Impact. See discussion under Section 6a above.

7. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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			X	

based on other substantial evidence of a known fault?				
ii. Strong seismic ground shaking?			X	
iii. Seismic-related ground failure, including liquefaction?			X	
iv. Landslides?			X	
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 direct or indirect risks to life or property?				X
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?				X
f. Directly or indirectly destroy a unique paleontological resource or unique geologic feature?		X		

ENVIRONMENTAL SETTING

The 2014 Clovis General Plan EIR identified no geologic hazards or unstable soil conditions known to exist on the Project site. Although Figure 5.6-2 of the Geology and Soils Chapter of the General Plan EIR does show a fault, the fault is located several miles east of the Project site.

DISCUSSION

a) *Would the project 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?; ii) Strong seismic ground shaking?; iii) Seismic-related ground failure, including liquefaction?; iv) Landslides?*

Less-Than-Significant Impact. Although the Project site does not have any known faults on the site, the potential remains that seismic ground-shaking could occur from the fault located east of the Project. However, adherence to the most current California Building Codes would ensure that the structures are constructed safely and in compliance with the appropriate building codes. With regards to liquefaction, the 2014 General Plan EIR states that the soil types in the area are not considered conducive to liquefaction due to their high clay content

or from being too coarse.[8] Further, the site is generally flat and therefore landslides would not occur at the Project site. Overall, due to the location away from a known fault, adherence to the most recent California Building Codes, and the flat topography, a **less-than-significant impact** would occur with regards to potential impacts from seismic activity.

b) *Would the project result in substantial soil erosion or the loss of topsoil?*

Less-Than-Significant Impact. The topography of the Project site is relatively flat with little to no slope. Development of the site would require grading and construction activities to ensure a flat and graded surface prior to construction. Such activities may result in the soil erosion and loss of topsoil. Such impacts would be addressed by applicable regulations set forth by the Regional Water Quality Control Board including preparation of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer per the General Construction Permit requirements of the National Pollutant Discharge Elimination System. The SWPPP incorporates Best Management Practices for erosion and sediment controls and soil stabilization. Further, as part of the Project, grading plans are required to be submitted and approved by the Engineering Division to ensure appropriate grading of the site. Thus, these reviews and approval processes would ensure that a **less-than-significant** impact occur.

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

Less-Than-Significant Impact. See discussion under Section 7a.

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

No Impact. According to the 2014 Clovis General Plan EIR, expansive soils are mostly present in areas along the northern edge of the non-Sphere of Influence (SOI) and the easternmost part of the Clovis non-SOI plan area. Because the Project is not within the vicinity of these areas, there would be no potential for creating direct or indirect substantial risks to life or property with regards to expansive soils. As a result, **no impact** would occur.

e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. The Project does not propose the use of septic tanks; therefore, **no impact** would occur.

f) *Would the project directly or indirectly destroy a unique paleontological resource or unique geologic feature?*

Less-Than-Significant Impact With Mitigation. The Project site has been previously disturbed, as well as the immediately surrounding areas with no known occurrences of the discovery of paleontological resources. In addition, the BRA concluded that the potential for uncovering of subsurface deposits is unlikely. Nevertheless, the possibility remains that the inadvertent or accidental discovery could occur during ground disturbing construction activities. However, Mitigation Measure GEO-1, below, would serve to protect the accidental discovery of paleontological resources. As such, a **less-than-significant with mitigation** impact would occur.

[8] 2014 Clovis General Plan EIR, Chapter 5: Geology and Soils, page 5.6-3.

Mitigation Measure GEO-1: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist and/or paleontologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.

If the qualified professional determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

If a potentially eligible resource is encountered, then the qualified professional archaeologist and/or paleontologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

8. GREENHOUSE GAS EMISSIONS

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

ENVIRONMENTAL SETTING

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected into the atmosphere. The accumulation of GHG's has been implicated as a driving force for global climate change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and anthropogenic activities which alter the composition of the global atmosphere.

Individual projects contribute to the cumulative effects of climate change by emitting GHGs during construction and operational phases. The principal GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. While the presence of the primary GHGs in the atmosphere are naturally occurring, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are largely emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere. Carbon dioxide is the "reference gas" for climate change, meaning that emissions of GHGs are typically reported in "carbon dioxide-equivalent" measures. Emissions of carbon dioxide are largely by-products of fossil fuel combustion, whereas methane results from

off-gassing associated with agricultural practices and landfills. Other GHGs, with much greater heat-absorption potential than carbon dioxide, include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and are generated in certain industrial processes.

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming. Potential global warming impacts in California may include, but are not limited to, loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

In 2005, in recognition of California's vulnerability to the effects of climate change, Executive Order S-3-05 was signed. The order sets forth a series of target dates by which statewide emission of GHGs would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32), which requires the California Air Resources Board to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

In December 2009, the SJVAPCD adopted guidance for addressing GHG impacts in its *Guidance for Valley Land Use Agencies in Addressing GHG Emission Impacts for New Projects under* CEQA. The guidance relies on performance-based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project-specific GHG emissions on global climate change during the environmental review process. Projects can reduce their GHG emission impacts to a less than significant level by implementing BPS. Projects can also demonstrate compliance with the requirements of AB 32 by demonstrating that their emissions achieve a 29% reduction below "business as usual" (BAU) levels. BAU is a projected GHG emissions inventory assuming no change in existing business practices and without considering implementation of any GHG emission reduction measures.

Significance Criteria

The SJVAPCDs *Guidance for Valley Land Use Agencies in Addressing GHG Impacts for New Projects Under CEQA* provides initial screening criteria for climate change analyses, as well as draft guidance for the determination of significance.

The effects of project specific GHG emissions are cumulative, and therefore climate change impacts are addressed as a cumulative, rather than a direct, impact. The guidance for determining significance of impacts has been developed from the requirements of Assembly Bill 32. The guideline addresses the potential cumulative impacts that a project's GHG emissions could have on climate change.

Since climate change is a global phenomenon, no direct impact would be identified for an individual land development project. The following criteria are used to evaluate whether a project would result in a significant impact for climate change impacts:

- Does the project comply with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions?
- Does the project achieve 29% GHG reductions by using approved Best Performance Standards?
- Does the project achieve Assembly Bill 32 targeted 29% GHG emission reductions compared with BAU?

Projects that meet one of these guidelines would have less-than-significant impact on the global climate. The goal of 29% below BAU for emissions of GHG has been used as a threshold of significance for this analysis.

DISCUSSION

a) *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less-Than-Significant Impact. The Project would include the construction of a multifamily residential complex. As such, GHG emissions would be produced through the construction and operational phases of the Project. However, the SJVAPCD includes regulations to reduce GHG emissions such as standards for medium and heavy-duty engines and vehicles (i.e., tractors and construction equipment) that would apply to buildout of the Project. Compliance with Title 24 energy efficient building codes would apply, which also helps to reduce GHG emissions during the operation of the Project, by requiring minimum standards for insulation, energy efficiency, and window glazing, etc., which serve to maximize efficiency of new construction. Further, the Project would comply with the latest water efficient landscape standards, which help to reduce energy usage. Overall, the AQ/GHG Memo concluded that the Project, with implementation of required energy efficient standards, would sufficiently reduce emissions. Therefore, a **less-than-significant** impact would occur.

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

Less-Than-Significant Impact. Based on the AQ/GHG Memo,[9] the Project would comply with existing State regulations adopted to achieve the overall GHG emission reduction goals. As indicated in the discussion above under Section 8a, the Project would result in GHG reductions by complying with the latest energy efficient and water conservation standards. Consequently, the AQ/GHG Memo found this potential impact to be **less-than-significant**.

9. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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	

[9] Air Quality and Greenhouse Gas Analysis Memorandum, LSA, page 24, October 13, 2023.

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 or excessive noise 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	

ENVIRONMENTAL SETTING

For purposes of this chapter, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. A "hazardous material" is defined in the Code of Federal Regulations (CFR) as "substance or material that is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as "any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment." Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that "…because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed."

The nearest school to the Project site is within the Reagan Education Center (REC), which is home to Reagan Elementary School and Clovis East High School. The REC is located across De Wolf Avenue.

DISCUSSION

a) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less-Than-Significant Impact. The Project consists of the construction of a multifamily residential complex under the proposed R-3 zone district. The type of hazardous materials that would be associated with the Project are those typical of multifamily residential uses, such as the use of cleaners, landscape maintenance products,

soaps, and potential pesticides (for pest control). It is not expected that the Project would routinely transport, use, or dispose of hazardous materials other than those typical of those associated with residential uses. However, if transported, handled, and disposed of in accordance with regulations, these materials are not generally considered of the type or quantity that would pose a significant hazard to the public when used as directed. During construction, typical equipment and materials would be used that are associated with residential/commercial construction; however, any chemicals or materials would be handled, stored, disposed of, and/or transported according to applicable laws. Consequently, because the Project is not of the type of use that would routinely transport, use, or dispose of hazardous materials a **less-than-significant** impact would occur.

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

Less-Than-Significant Impact. See discussion above under Section 9a.

c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less-Than-Significant Impact. As previously discussed, the Project site is near an education center that includes an elementary and high school. However, the Project is not of the type of use typically associated with emitting hazardous emissions or handling the type or quantity of hazardous materials such that it would pose a risk or threat to the school, or surrounding area. Therefore, a **less-than-significant** impact would occur.

d) *Would the project 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?*

No Impact. According to the California Department of Toxic Substance Control EnviroStor Database, the Project site is not located on or within the immediate vicinity of a hazardous materials site.[10] Therefore, **no impact** would occur.

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

No Impact. The Project is located approximately three (3) miles northeast of the Fresno Yosemite International Airport and is not within the Airport Influence Area, safety zones, noise, or airspace and overflight areas. Therefore, **no impact** would occur.

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

Less-Than-Significant Impact. The Project is located at a site that is surrounded by existing development. Further, the road network is already in place from previous development. Although the Project could result in temporary traffic detouring or closures during buildout, these delays would be temporary and would be coordinated with the City Engineering Division and other divisions/departments to ensure safe access to and

[10] California Department of Toxic Substance Control, EnviroStor Database, https://www.envirostor.dtsc.ca.gov/public/map/?global_id=71003467, accessed on July 13, 2023.

from the area is maintained. Further, the site itself would be reviewed by City departments to ensure adequate site access and circulation is provided in the event of an emergency. Overall, a **less-than-significant** impact would occur.

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

Less-Than-Significant Impact. The site is an infill site surrounded by urban uses. Therefore, it is not in a location typically associated with wildfires. Although urban fires could occur, the Project would be constructed to the latest fire code standards, which would include fire sprinklers in each unit, as well as the installation of fire hydrants throughout the site as required by the Clovis Fire Department. Further, other life safety features would be required such as smoke detectors, which would be reviewed and checked by the Fire Department to ensure proper operation prior to occupancy. Ultimately, a **less-than-significant** impact would occur.

10. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
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 substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (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 (iv) impede or redirect flood flows?			X	
i. Result in 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 offsite?			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?			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
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

ENVIRONMENTAL SETTING

The City is within the drainages of three streams: Dry Creek, Dog Creek, and Redbank Slough. On the north, Dry Creek discharges into the Herndon Canal in the City of Fresno west of Clovis. South of Dry Creek, Dog Creek is a tributary of Redbank Slough, which discharges into Mill Ditch south of Clovis (USGS 2012). A network of storm drains in the City discharge into 31 retention basins, most of which provide drainage for a one- to two-square-mile area. Most of the Plan Area east and northeast of the City is not in drainage areas served by retention basins.

The Project is located within the FMFCD boundary, and subject to its standards and regulations. Detention and retention basins in the FMFCD's flood control system are sized to accommodate stormwater from each basin's drainage area in built out condition. The current capacity standard for FMFCD basins is to contain runoff from six inches of rainfall during a 10-day period and to infiltrate about 75 to 80 percent of annual rainfall into the groundwater basin (Rourke 2014). Basins are highly effective at reducing average concentrations of a broad range of contaminants, including several polyaromatic hydrocarbons, total suspended solids, and most metals (FMFCD 2013). Pollutants are removed by filtration through soil, and thus do not reach the groundwater aquifer (FMFCD 2014). Basins are built to design criteria exceeding statewide Standard Urban Stormwater Mitigation Plan (SUSMP) standards (FMFCD 2013). The urban flood control system provides treatment for all types of development—not just the specific categories of development defined in a SUSMP—thus providing greater water quality protection for surface water and groundwater than does a SUSMP.

In addition to their flood control and water quality functions, many FMFCD basins are used for groundwater recharge with imported surface water during the dry season through contracts with the FID and the cities of Fresno and Clovis (FMFCD 2013).

The pipeline collection system in the urban flood control system is designed to convey the peak flow rate from a two-year storm.

Most drainage areas in the urban flood control system do not discharge to other water bodies and drain mostly through infiltration into groundwater. When necessary, FMFCD can move water from a basin in one such drainage area to a second such basin by pumping water into a street and letting water flow in curb and gutter to a storm drain inlet in an adjoining drainage area (Rourke 2014). Two FMFCD drainage areas discharge directly to the San Joaquin River, and three to an irrigation canal, without storage in a basin. Six drainage areas containing basins discharge to the San Joaquin River, and another 39 basins discharge to canals (FMFCD 2013).

A proposed development that would construct more impervious area on its project site than the affected detention/retention basin is sized to accommodate is required to infiltrate some stormwater onsite, such as through an onsite detention basin or drainage swales (Rourke 2014).

Groundwater

In 2014, the Sustainable Groundwater Management Act (SGMA) was signed into law which created the framework for groundwater management within California. As a result, SGMA requires governments and water agencies of high and medium priority basins to halt groundwater overdraft and bring the groundwater basins back to a balance.

The City of Clovis is within the Kings Groundwater Subbasin, which is managed by the North Kings Groundwater Sustainability Agency for the area which the City is located and is considered critically over drafted. The Kings Basin is a sub basin to the southern part of the San Joaquin Valley Basin and covers 1,530 square miles. Groundwater within the basin is monitored by the City, FID, and the Kings River Conservation District.

The City of Clovis provides water through a combination of surface and groundwater sources, including the Kings River, as well as several City-managed wells.

Lastly, a Water Infrastructure Investigation (WII) was completed by Provost and Pritchard Consulting Group (P&P) on September 1, 2023. The investigation was into the water system infrastructure required to serve the proposed development. Information from this investigation is used for the analysis in the Hydrology and Water Quality and Utilities and Service Systems sections of this Initial Study.

DISCUSSION

a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less-Than-Significant Impact. The Project is located on a site that was previously anticipated for suburban development that the Project proposes. As with any development, existing policies and standards are required to be complied with, which are assessed during review of the entitlements. As such, the engineering department, as well as outside agencies such as the FMFCD review all plans to ensure that none of the water quality standards are violated and that waste discharge requirements are adhered to during construction and operation of the Project. Consequently, this process of Project review and approval would ensure that a **less-than-significant** impact occur.

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

Less-Than-Significant Impact. The Project would not deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level due to the Project. The General Plan EIR identified a net decrease in groundwater aquifer throughout the region, however, because the City's domestic water system is primarily served through surface water via existing water entitlements, the loss of aquifer is less than significant.

The City has developed a surface water treatment plant that reduces the need for pumped groundwater and has also expanded the municipal groundwater recharge facility. In addition, all landscaping shall be subject to Model Water Efficient Landscape Ordinance requirements, which mandate drought tolerant and low water use landscaping. Further, the WII for the Project determined that the existing and planned water distribution system

and recommended connections should be adequate to convey water supply to the Project to support anticipated demands from the Project. For these reasons, the Project's impacts to groundwater are **less-than-significant**.

c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (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 (iv) impede or redirect flood flows?*

Less-Than-Significant Impact. The Project site is located on an infill site that is generally flat and surrounded by existing urban uses. There are no streams or rivers on the site that would be altered as a result of the Project. The infrastructure surrounding the site, such as storm drains are already in place from existing development. The drainage pattern would be constructed per existing policies and regulations through review of the plans by the City engineering department and the FMFCD to ensure the site is properly and adequately drained such that the storm drain system is maintained and so that no flooding occurs. The review and approval by City engineers and FMFCD would mean that the Project results in a **less-than-significant** impact.

d) *Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

No Impact. The Project site is located on an infill site substantially surrounded by existing urban uses. Due to the Central Valley's location away from the ocean, an impact from a tsunami is unlikely. The Project site is not in a Federal Emergency Management Agency (FEMA) flood zone. The nearest FEMA flood zone is over 1,400 feet to the east of the site. Consequently, this is a low-risk area and as a result a **no impact** would occur.

e) *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less-Than-Significant Impact. The City of Clovis is within the North Kings County Groundwater Sustainability Agency (GSA). Pursuant to the SGMA, certain regions in California are required to develop and implement a groundwater management plan that sustainably manages groundwater resources. The North Kings County GSA adopted a groundwater management plan in 2019. The Project will have access to the annual allotment of water. With regards to water quality control, the Project would be required to adhere to appropriate storm drain conveyance and the protection of water resources which would include the installation of backflow preventers.

Further, the WII for the Project determined that the existing and planned water distribution system and recommended connections should be adequate to convey water supply to the Project to support anticipated demands from the Project. Consequently, the Project would result in a **less-than-significant** impact.

11. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an existing community?			X	
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted			X	

for the purpose of avoiding or mitigating an environmental effect?				

ENVIRONMENTAL SETTING

As described above in the Project Description, the Project site is considered an in-fill site in that the surrounding areas are urbanized. There are existing single-family residential uses to the north, west, and south, as well as a school to the east.

DISCUSSION

a) *Would the project physically divide an existing community?*

Less-Than-Significant Impact. The site is developed and is within a general area that is urbanized with a mix of existing uses and land use types. Typically, physically dividing existing communities is associated with the construction of a new road intersecting an established area or introducing uses that are not necessarily in line with the existing uses and planned land uses of the area. The Project site is adjacent to Ashlan Avenue and between a school site and existing single-family residences. As a residential use, the Project is in line with the surrounding area. Therefore, a **less-than-significant** impact would occur.

b) *Would the project 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?*

Less-Than-Significant Impact. The proposed use requires the amendment to the City's General Plan Land Use Diagram from the existing Low Density Residential designation to High Density Residential. The proposed rezone request to the R-3 zone district is consistent with the proposed High Density Residential designation. Further, through the entitlement process, the Project is reviewed for compliance with applicable regulations, including those intended for avoiding or mitigating an environmental effect. For example, the Project would be required to comply with applicable lighting, landscape, and noise standards, which are regulated through the Clovis Municipal Code to ensure minimal impacts to the environment as well as with neighboring properties. Overall, with the review process ensuring General Plan and other applicable policies will be adhered to, the Project would result in a **less-than-significant** impact with regards to conflicting with a land use plan.

12. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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

ENVIRONMENTAL SETTING

The City of Clovis 2014 General Plan EIR defines minerals as any naturally occurring chemical elements or compounds formed from inorganic processes and organic substances.[11] The 2014 General Plan EIR indicates that there are no active mines or inactive mines within the Plan Area of the City of Clovis.

DISCUSSION

a) *Would the project 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?*

No Impact. As stated above, the City of Clovis does not have any active mines or inactive mines. Further, the Project site is an infill site within the City and is not zoned, designated, or otherwise mapped for mineral resource extraction, or for having mineral resources of value to the region present on or below the surface of the site. Therefore, **no impact** would occur.

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

No Impact. See discussion under Section 12a.

13. NOISE

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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	
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

ENVIRONMENTAL SETTING

As mentioned above in the Project Description, the site is located on the northwest corner of Ashlan and De Wolf Avenues. In general, the Project site is within an urbanized area of the City surrounded by existing residential to the north, west, and south, as well as a school to the east. As such, existing ambient noise levels are typical of noises from these types of developments (i.e., schools, roadway networks, and residential).

[11] 2014 Clovis General Plan EIR, Chapter 5: Mineral Resources, page 5.11-1.

DISCUSSION

a) *Would the project result in 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?*

Less-Than-Significant Impact. The Project would include the redevelopment of a site within Clovis. The Project would result in a temporary and permanent increase in ambient noise levels as a result. However, as mentioned above, the Project site is infill and is already surrounded by existing residential development and school uses. Therefore, while the Project would introduce new ambient noise from the construction of the multifamily complex, it is likely that the Project would still meet City noise standards.

Further, CMC Section 9.22.080, Noise, sets forth noise standards for development which would need to be complied with. For example, construction would only be permitted between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and between 9:00 a.m. and 5:00 p.m. on weekends. However, between June 1st and September 15th, construction may begin at 6 a.m. on weekdays.

Consequently, because the Project site is considered infill, already surrounded by similar uses, and because construction noise would be temporary in nature, the potential for a substantial increase in ambient or temporary noise increases is considered **less-than-significant**.

b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less-Than-Significant Impact. The Project would include the redevelopment of a site within Clovis. Construction equipment typical of the development of multifamily residential buildings would be utilized temporarily. This equipment could include the use of heavy tractors, trucks, and other equipment; however, this type of equipment isn't typically associated with excessive groundborne vibration given the distance of residential homes to the site. If any vibration were to occur, it's likely that it would be temporary in nature and not at levels that would significantly impact the surrounding area.

Further, the Project would be required to comply with the provisions of Section 9.22.100 of the CMC, which requires that vibration not be perceptible along property lines and that it shall not interfere with operations or facilities on adjoining parcels. It's important to note that temporary construction vibration and noise is exempt from these provisions since construction is temporary. Overall, because the type of equipment likely to be used in the development of the Project is not considered to be of the type and intensity to result in substantial vibration or groundborne noise, the impact would be **less-than-significant**.

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?*

No Impact. The Project is not located within the vicinity of Fresno Yosemite International Airport, which is approximately three (3) miles southwest of the site. As such, it is located outside of the noise contour map of the airport.[12] Therefore, there would be no exposure to excessive noise levels and **no impact** would occur.

[12] Fresno Council of Governments, Airport Land Use Compatibility Plan, December 2018, Fresno Yosemite International Airport, Exhibit D2, Noise Contours.

14. POPULATION AND HOUSING

Would the project:	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	

ENVIRONMENTAL SETTING

The Project is located on an in-fill site that is planned for residential use in the 2014 Clovis General Plan. As previously mentioned, a general plan amendment and rezone have been filed to redesignate the site to High Density Residential and rezone the site to R-3 to allow for the proposed multifamily project.

DISCUSSION

a) *Would the project 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)?*

Less-Than-Significant Impact. As mentioned, the Project would include the development of a multifamily complex with 26 units. The proposed density from the Low Density Residential designation to the High Density Residential designation will increase the capacity of housing units and thus will increase the number of people in the area. The existing designation will allow for six residences while the proposed project will provide 26 units. While the Project includes increasing the density for residential use, the overall area was planned for development and is considered an infill site. Further, unplanned population growth is typically associated with providing new services in remote areas of the City or other infrastructure that was not previously identified in the General Plan. The Project site itself is an in-fill site, thus, the primary infrastructure (i.e., road network, utilities, etc.) is already in place and would be able to serve the site. Thus, a **less-than-significant** impact would occur.

b) *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Less-Than-Significant Impact. The Project site is developed with one single family residence that is currently occupied. While there is an existing occupied home on the site, the Project is not displacing a substantial number of people. Therefore, the Project would not result in the substantial displacement of existing people or housing and a **less-than-significant** impact would occur.

15. PUBLIC SERVICES

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

ENVIRONMENTAL SETTING

The Project is located on an in-fill site within the City, surrounded by existing residential and school uses. The Project would be served by the Clovis Fire Department, Clovis Police Department, with mutual aid from the City of Fresno or County of Fresno, when needed. The Project site would also be within the Clovis Unified School District.

The nearest fire station is Clovis Fire Station 6, located approximately a mile northeast of the site and Clovis Fire Station 4, located approximately two (2) miles northwest of the site. The Clovis Police department is located approximately four and a half (4.5) miles north of the site.

DISCUSSION

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

Less-Than-Significant Impact. Although the Project would result in additional residential units to the area, the site is in an urbanized area of the City already able to be served by the Clovis Fire Department. Also, the site itself is near Fire Station 6, which would mean that response times should be able to be maintained during calls for service. As part of the entitlement process for the Project, the Clovis Fire Department will review the design and site layout to ensure adequate fire safety measures and site circulation are achieved. This includes placement of new fire hydrants throughout the site, adequate drive widths for fire truck and emergency vehicle access, and the appropriate application of fire codes, such as installation of sprinkler systems, fire alarms, and smoke detectors. The initial review by the Fire Department determined that adequate fire services can be provided to the site subject to standard conditions of approval, including providing minimum clear paths of travel for fire access. Overall, construction that would meet the latest fire code standards, and review by the Clovis Fire Department, impacts related to effects on the performance of the Fire Department would be **less-than-significant** impact.

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

Less-Than-Significant Impact. Although the Project would result in additional residential units to the area, the site is in an urbanized area of the City already able to be served by the Clovis Police Department. The Clovis Police Department headquarters are located at 1233 Fifth Street, which is approximately four and a half (4.5) miles from the site. As part of the entitlement process for the Project, the Clovis Police Department will review the design and site layout to ensure adequate safety measures are achieved. Lastly, the site is in an already urbanized area serviced by the Clovis Police Department, and thus access to and from the site would be similar to existing conditions when responding to calls for services. Consequently, a **less-than-significant** impact would occur.

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

Less-Than Significant Impact. The Project includes construction of a multifamily residential complex which would generate students for schools. The Project request was distributed to the Clovis Unified School District for review and the school district did not express any concerns accommodating additional students that may result from the development of this project. Therefore, a **less-than-significant** impact would occur.

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

Less-Than-Significant Impact. See discussion under Section 16, Recreation for the analysis related to parks.

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

Less-Than-Significant Impact. Although the Project would result in an increase in residential density, the increase can be considered less than significant. The project site is an infill development surrounded by existing residential and school uses. Further, through the entitlement process, the Project would undergo review by several departments and agencies for compliance with appropriate regulations and policies. This could result in various impact fees that are intended to maintain and enhance public facilities as appropriate. As such, payment of the typical development fees, as well as project review by the different department and agencies, would result in the Project having a **less-than-significant** impact to public facilities.

16. RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?			X	

ENVIRONMENTAL SETTING

The Project is located on an in-fill site surrounded by existing residential and school uses. There are seven parks within half a mile of the subject property. The Arrowhead and East West Parks, located northwest of the site, are the closest public parks. There is also a proposed paseo that the project will ultimately connect to once further development of adjacent parcels occurs.

DISCUSSION

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

Less-Than-Significant Impact. As mentioned in the Population and Housing section of this Initial Study, the Project proposes the construction of a multifamily residential complex which will generate new residents to the site that may increase utilization of the nearby park. However, the additional 26 units is not likely to substantially increase the usage of the parks. Further, the Project itself would include landscaped common areas and play areas within its site for its residents. Overall, the type and use of Project would not likely increase the use of existing parks such that physical deterioration would occur. Therefore, the impact would be **less-than-significant**.

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

Less-Than-Significant Impact. The Project site itself would construct on site landscaping in compliance with City standards for residential development. However, it is not likely that the Project itself would require the construction or expansion of new recreational facilities that would have an adverse physical effect on the environment. The Project would also be required to contribute a proportionate share towards the acquisition and development of future parks in order for the City to maintain its adopted ratio of providing four (4) acres of park land per 1,000 residents, as stated in Policy 1.1 in the Open Space and Conservation Element of the 2014 General Plan, and Section 3.4.03 of the CMC. As such, a **less-than-significant** impact would occur.

17. TRANSPORTATION

Would the project:	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,			X	

roadway, bicycle, and pedestrian facilities?				
b. Conflict or be inconsistent with CEQA Guidelines section 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	

ENVIRONMENTAL SETTING

The Project is an infill site surrounded by existing residences and a school. The site is bounded by Ashlan Avenue on the south and De Wolf Avenue on the east. According to the 2014 Clovis General Plan Circulation Diagram in the Circulation Element (Figure C-1), Ashlan Avenue is designated as an arterial street and De Wolf Avenue is designated as a collector street. Arterial streets are designed to move large volumes of traffic and are intended to provide high level of mobility between freeways, expressways, other arterials, and collector roadways. Arterial streets typically have more right-of-way and a higher degree of access control than collector roadways. Collector streets provide for relatively short distance travel between and within neighborhoods. Collectors are not designed to handle long-distance through-traffic. Driveway access to collectors is less limited than on arterials. Speed limits on these streets are typically lower than those found on arterials. A Trip Generation Analysis (TGA) and Vehicle Miles Traveled Analysis (VMT Analysis) was prepared by LSA dated August 22, 2022 (included as Appendix E of this Initial Study). The information and analysis in the following section is based on the results of the TGA and VMT Analysis.

DISCUSSION

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

Less-Than-Significant Impact. As mentioned above, the site is within an urbanized area that was previously planned for residential development by the 2014 Clovis General Plan. The Project proposes a density of approximately 16.04 dwelling units per acre, which is within the allowable density range of the High Density Residential land use designation. Although the existing land use designation is Low Density Residential, the applicant requests an increase to the High Density Residential land use designation.

As a result of the proposed increase, preparation of a TGA was required by the City Engineer to evaluate the potential difference in traffic generation of the proposed Project and that which could otherwise be developed consistent with the Clovis General Plan. The Project is estimated to generate 175 daily trips, 11 AM peak hour trips and 13 PM peak hour trips. Based on this analysis, the City Engineer determined that there are **less-than-significant** impacts to the program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

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

Less-Than-Significant Impact. Under Senate Bill (SB) 743, traffic impacts are related to Vehicle Miles Traveled (VMT). The VMT metric became mandatory on July 1, 2020. The City Guidelines provide guidance relative to analyzing VMT for purposes of determining transportation impacts in accordance with the CEQA. The

City Guidelines also state that Projects that generate or attract fewer than 500 vehicle trips per day are presumed to cause a less-than-significant transportation impact. These Projects are identified as small projects. The Project is considered a small project and therefore will cause a **less-than-significant** impact.

c) *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less-Than-Significant Impact. The Project would result in a significant impact if it would include features that would create a hazard such as a sharp curve in a new roadway or create a blind corner or result in sight distance issues from entryways. Through the entitlement process, the Project would undergo review by multiple City departments, such as planning and engineering, to ensure that the site layout conforms to existing regulations, such as the City Development Code, and other applicable codes, such as the fire code and building code. During this review, the Project would need to make the necessary corrections to ensure that no hazardous design features would result from the Project. Therefore, because the Project would undergo site plan and design review to ensure consistency and adherence to applicable design and site layout guidelines, a **less-than-significant** impact would occur.

d) *Would the project result in inadequate emergency access?*

Less-Than-Significant Impact. The Project would include two ingress/egress access points, one along Ashlan Avenue and one along De Wolf Avenue. As part of the Project review, the Clovis Fire Department would review all plans to ensure adequate emergency access is provided. This review includes review for adequate roadway widths, turning radii, as well as adequate access to units and accessibility to water. Consequently, because the Project plans would be required by the CMC to be reviewed and approved by Clovis Fire Department and Police Department prior to construction, this impact would be **less-than-significant**.

18. TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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)?				X
b. 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 Resources Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe?		X		

ENVIRONMENTAL SETTING

On September 25, 2014, Governor Jerry Brown signed Assembly Bill (AB) 52, which intends to protect a new class of resources under the CEQA. This new class is Tribal Cultural Resources and provides an avenue to

identify tribal cultural resources through a consultation process, similar to SB 18. However, unlike SB 18 where consultation is required for all General Plan and Specific Plan amendments, AB 52 applies to all projects where a Notice of Determination is filed, and the City has received written notification requests. Furthermore, the consultation process is required to be complete prior to filing a Notice of Intent.

On June 7, 2023 and June 12, 2023, consistent with SB 18 and AB 52, invitations to consult on the Project were mailed to 14 tribes within the area. Tribes have up to thirty (30) days to request consultation in accordance with AB 52, while tribes have up to (90) days to request consultation in accordance with SB 18. No requests for consultation were requested during these times.

A Historical Resources Evaluation (HRE) was prepared by LSA dated August 23, 2022 (See Appendix F). The HRE was based off the Department of Parks and Recreation forms and was evaluated under the criteria for listing in the California Register of Historical Places. It was determined that the existing residence does not appear to be eligible for listing in the California Register under any criteria.

An ARS was prepared by LSA dated August 22, 2022 (See Appendix C). The ARS was based on information obtained at the Southern San Joaquin Valley Information Center, CSU Bakersfield, as well as review of other surveys conducted in the area. Based on the ARS, no cultural resources have been identified within a half mile of the Project site.

DISCUSSION

a) *Would the project cause a substantial adverse change to a 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)?*

No Impact. As mentioned in the Project Description, the Project site is currently developed. There are no existing structures or features on the site that are listed or eligible in the California Register of Historical Resources, or in a local register. As such, the Project would have **no impact**.

b) *Would the project cause a substantial adverse change to 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 Resources Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe?*

Less-Than-Significant Impact With Mitigation. As mentioned above, the City invited 14 Native American tribes to consult on the Project under AB 52 and SB 18, and no tribes requested consultation within the 30-day or 90-day period. The Project site is developed but would require trenching and ground-disturbing activities during construction for the installation of utility infrastructure needed to serve the Project. Although no cultural resources were identified at the site, the potential remains that cultural resources could be inadvertently discovered during ground-disturbing activities. However, implementation of Mitigation Measures TCR-1 and TCR-2 below would reduce potential significant impacts and ensure protection in the event of accidental discovery of any cultural resources. With Mitigation Measure TCR-1 and TCR-2, impacts would be **less-than-significant with mitigation**.

Mitigation Measure TCR-1: If cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris,

shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.

If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

Mitigation Measure TCR-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.

19. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			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 wastewater treatment provider that 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	
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 reduction statutes and regulations related to solid waste?			X	

ENVIRONMENTAL SETTING

The electricity and natural gas services in the City of Clovis are provided by PG&E. AT&T/SBC provides telephone service to the City.

The City's water supply sources include groundwater drawn from the Kings Sub-basin of the San Joaquin Valley Groundwater Basin and surface water from the FID. Surface water is treated at the City of Clovis Surface Water Treatment Facility.

The City of Clovis provides sewer collection service to its residents and businesses. Treatment of wastewater occurs at the Fresno-Clovis Regional Wastewater Treatment Plant (RWTP). The Fresno-Clovis RWTP is operated and maintained by the City of Fresno and operates under a waste discharge requirement issued by the Central Valley Regional Water Quality Control Board. Additionally, the City has completed a 2.8 mgd wastewater treatment/water reuse facility, which will service the City's new growth areas.

The FMFCD has the responsibility for storm water management within the Fresno-Clovis metropolitan area of the Project site. Stormwater runoff that is generated by land development is controlled through a system of pipelines and storm drainage detention basins.

DISCUSSION

a) *Would the project 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?*

Less-Than-Significant Impact. The Project includes construction of a multifamily infill development. A WII for the Project was conducted by P&P and a Wastewater Service Study (WSS) for the Project was conducted by Blair, Church & Flynn Consulting Engineers dated September 1, 2023 and amended by the City on October 27, 2023. In the WII, P&P confirmed that the City's existing and planned water distribution system and recommended connections should be adequate to convey water supply to the Project to support the anticipated demands form the Project. The WSS also indicates that the existing and planned wastewater collection system facilities can accommodate the proposed change from Low Density Residential to High Density Residential land use for the subject site. Further, as part of the review process for the Project, the wastewater impacts will be evaluated by the City Engineer to ensure compliance with the City's Wastewater Master Plan, as well as FMFCD, so that the Project would not exceed wastewater treatment requirements such that a new facility would be required, nor would the existing treatment facility need to be expanded. Further, while the Project would introduce new uses at this site, the type of development is consistent with the land use designation previously planned for. Upon review and approval by the City Engineer, the Project would result in a **less-than-significant** impact.

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

Less-Than-Significant Impact. The Project is entirely within the FID service area. Lands within the service area are entitled to an average annual allotment of approximately 2.24 acre-feet per acre (AF/ac). According to the WII conducted by P&P, the Project would increase the Annual Average (AFY) from 4.1 to 7.6. The additional supply required (AFY) is 4.0 for the Project. In accordance with City Ordinance, the Project will need to pay

additional fees so that the City can acquire additional water supply to serve the development. Water from the Kings River is available to offset the anticipated annual demand of 7.6 acre-feet. Therefore, the Project will cause a **less-than-significant impact** on water supply.

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

Less-Than-Significant Impact. The WSS determined that the existing and planned wastewater collection system facilities can accommodate the type of use proposed. For that reason, the impact would be **less-than-significant**.

d) *Would the project 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?*

Less-Than-Significant Impact. The Project would introduce new solid waste throughout construction and operation of the Project. However, the Project would be required to comply with Chapter 6.3.1, Recycling and Diversion of Construction and Demolition Debris, of the CMC during construction. This section of the CMC requires that a minimum of fifty percent (50%) of waste tonnage from a project be diverted from disposal, and that all new residential (and commercial) construction within the City shall submit and obtain approval for a waste management plan prior to construction activities. Compliance with these measures would ensure that the Project does not result in a significant impact during the construction phase of the Project. Further, compliance with policies in the General Plan for the reduction and recycling of solid waste would serve to reduce impacts of solid waste by promoting and encouraging the recycling of materials. Lastly, according to the California Department of Resources Recycling and Recovery (CalRecycle), the City has exceeded their target population disposal rate of 4.7 pounds per day per person, meaning that Clovis residents are actually producing less solid waste than the target set by the State.[13] Consequently, a **less-than-significant** impact would occur.

e) *Would the project comply with federal, state, and local management reduction statutes and regulations related to solid waste?*

Less-Than-Significant. See discussion 19d above.

20. WILDFIRE

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

[13] CalRecycle, City of Clovis, https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006, accessed November 2023.

power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				
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	

ENVIRONMENTAL SETTING

The Project site is located on an infill site surrounded by existing urban uses. The site's topography is relatively flat with level terrain with an existing single-family residence.

DISCUSSION

a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less-Than-Significant Impact. The Project is located at a site that is relatively flat with level terrain and is surrounded by existing development. Further, the road network is already in place from previous development. Although the Project could result in temporary traffic detouring or closures during buildout, these delays would be temporary and would be coordinated with the City Engineering staff and other departments to ensure safe access to and from the area is maintained. Further, the site itself would be reviewed by City departments to ensure adequate site access and circulation is provided in the event of an emergency. Overall, a **less-than-significant** impact would occur.

b) *Would the project, 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?*

Less-Than-Significant Impact. The Project site is relatively flat with level terrain, is partially developed, and is located on an infill site surrounded by existing urban uses. The general vicinity of the site is flat, therefore, is not of the type of topography nor in a location likely to exacerbate wildfire risks. Further, the Project would be required to comply with the latest fire codes and would be required to include sprinklers on the interior of the structures and require installation of several hydrants throughout the site. Lastly, the site plans would undergo review by the Clovis Fire Department to ensure that all fire safety regulations are met. Therefore, a **less-than-significant** impact would occur.

c) *Would the project 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?*

Less-Than-Significant Impact. The site is located in an area currently developed. As a new development, installation of a private roadway network, water lines, and power lines would be required; however, these utilities and infrastructure are typical of development and would be constructed to standards of the respective agencies and departments which oversee them, as well as be required to comply all necessary plan review and permitting requirements of such departments and agencies. As such, a **less-than-significant** impact would occur.

d) *Would the project 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?*

Less-Than-Significant Impact. The City of Clovis has generally flat topography, and the site itself is in an area that is not in close proximity to hillsides that would expose people or structures to significant risks associates with downstream flooding or landslides as a result of runoff or post-fire slope instability. As such, a **less-than-significant** impact would occur.

21. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, 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 that will cause substantial adverse effects on human beings, either directly or indirectly?			X	

ENVIRONMENTAL SETTING

The Project is located on an infill site within the City of Clovis, substantially surrounded by existing development consisting of residential and educational uses.

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 a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

Less-Than-Significant Impact. As discussed throughout the Initial Study, the Project would not result in any significant impacts with implementation of mitigation measures prescribed above. Therefore, the Project would have a **less-than-significant** impact as it would not substantially degrade the quality of the environment.

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

Less-Than-Significant Impact. The Project includes mitigation measures in certain topic areas identified throughout this Initial Study which would reduce potential impacts to a less-than-significant level. None of these impacts would be cumulatively considerable since most are either temporary impacts from construction or site specific. While air quality that is generally considered to be cumulatively measured, the Project was found to have a less-than-significant impact through compliance with existing regulations from the SJVPACD. As such, future Projects in the City would be required to comply with those same regulations, ensuring adequate mitigation as development occurs. Thus, a **less-than-significant** impact would occur.

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

Less-Than-Significant Impact. As discussed throughout the Initial Study, the Project would not result in a significant impact that could not be mitigated to a less-than-significant level. Therefore, a **less-than-significant** impact would occur.

I. Report Preparation

LEAD AGENCY

McKencie Perez, MPA
Senior Planner
City of Clovis
Planning & Development Services

TECHNICAL STUDIES

Air Quality and Greenhouse Gas Analysis Memorandum
De Wolf Apartments Project
Amy Fischer, Principal
Cara Cunningham, Associate
LSA Associates, Inc.

Biological Resources Assessment
De Wolf Apartments Project
Kelly McDonald, Biologist
LSA Associates, Inc.

Archaeological Resources Survey Assessment
De Wolf Apartments Project
Kerrie Collison, M.A, Registered Professional Archaeologist, Associate/Senior Cultural Resources Manager
LSA Associates, Inc.

Water Infrastructure Investigation
De Wolf Apartments Project
Nicolas Jacobson, PE
Provost and Pritchard Consulting Group

Trip Generation Analysis and Vehicle Miles Traveled Analysis Memorandum
De Wolf Apartments Project
Ambarish Mukherjee, Principal
LSA Associates, Inc.

Historical Resources Evaluation
De Wolf Apartments Project
Casey Tibbet, M.A., Associate/Cultural Resources Manager/Architectural Historian
LSA Associates, Inc.

Wastewater Service Study
De Wolf Apartments Project
Brad Kerner, PE
Blair, Church & Flynn Consulting Engineers

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

MEMORANDUM

DATE: October 13, 2023

TO: Peter Sumal

FROM: Amy Fischer, Principal
Cara Cunningham, Associate

SUBJECT: Air Quality and Greenhouse Gas Analysis Memorandum for the DeWolf Apartments Project

INTRODUCTION

This Air Quality and Greenhouse Gas Analysis for the proposed DeWolf Apartments Project (project) in Fresno County has been prepared using methods and assumptions recommended in the San Joaquin Valley Air Pollution Control District's (SJVAPCD) *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI).[1] This analysis includes a description of existing regulatory framework, an assessment of project construction and operation period emissions, and an assessment of greenhouse gas (GHG) emissions.

PROJECT LOCATION AND DESCRIPTION

The 1.62-acre project site is located at 3182 DeWolf Avenue, northwest of the intersection of DeWolf Avenue and Ashlan Avenue, in Clovis, California. The project site would be accessible via Ashlan Avenue to the south and DeWolf Avenue to the east. The project site is bound to the north by single-family residential uses, to the east by DeWolf Avenue, to the south by Ashlan Avenue, and to the west by single-family residential uses. The project site is currently developed with an approximately 1,743-square-foot single-family residence.

The proposed project would include 26 multifamily apartment units and 26 parking stalls that would be covered with solar panels. The project would also include low maintenance landscape features. Once operational, the proposed project is expected to generate approximately 175 net new average daily trips.[2]

1 San Joaquin Valley Air Pollution Control District. 2015. *Guidance for Assessing and Mitigating Air Quality Impacts*. March 19. Website: www.valleyair.org/transportation/ceqa_idx.htm (accessed July 2022).

2 LSA. 2022. 3182 De Wolf Avenue Apartments Project Trip Generation Analysis and Vehicle Miles Traveled Analysis Memorandum.

Appendix A

Construction of the proposed project is expected to begin in January 2023. The proposed project would not require any soil import or export but would include the demolition of the existing residence.

Existing Sensitive Land Uses in the Project Area

For the purposes of this analysis, sensitive receptors are areas of population that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include residences, schools, day-care centers, hospitals, parks, and similar uses that are sensitive to air quality. Impacts on sensitive receptors are of particular concern because they are the population most vulnerable to the effects of air pollution.[1] The closest sensitive receptors to the project site include single-family residences located immediately north and west of the project site boundary, as well as a school located to the east of the proposed project site.

ENVIRONMENTAL SETTING

Air Quality Background

Air quality is primarily a function of both local climate and local sources of air pollution and regional pollution transport. The amount of a given pollutant in the atmosphere is determined by the amount of the pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, and terrain, and for photochemical pollutants, sunshine.

A region's topographic features have a direct correlation with air pollution flow and, therefore, are used to determine the boundary of air basins. The proposed project is located in Fresno County, within the jurisdiction of the SJVAPCD, which regulates air quality in the San Joaquin Valley Air Basin (SJVAB).

The SJVAB is comprised of approximately 25,000 square miles and covers all of seven counties including Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare, and the western portion of an eighth, Kern. The SJVAB is defined by the Sierra Nevada mountains in the east (8,000 to 14,000 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi mountains in the south (6,000 to 8,000 feet in elevation). The valley is topographically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay. An aerial view of the SJVAB would simulate a "bowl" opening only to the north. These topographic features restrict air movement through and out of the basin.

Both the State of California (State) and the federal government have established health-based Ambient Air Quality Standards (AAQS) for six criteria air pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter ($PM_{2.5}$

[1] SJVAPCD. 2015. *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI). March. Website: http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf (accessed July 2022).

and PM_{10}). The SJVAB is designated as nonattainment for O_3 and $PM_{2.5}$ for federal standards and nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards.

Air quality monitoring stations are located throughout the nation and maintained by the local air districts and State air quality regulating agencies. Data collected at permanent monitoring stations are used by the United States Environmental Protection Agency (USEPA) to identify regions as "attainment" or "nonattainment" depending on whether the regions meet the requirements stated in the applicable National Air Quality Standards (NAAQS). Nonattainment areas are imposed with additional restrictions as required by the USEPA. In addition, different classifications of attainment, such as marginal, moderate, serious, severe, and extreme, are used to classify each air basin in the State on a pollutant-by-pollutant basis. The classifications are used as a foundation to create air quality management strategies to improve air quality and comply with the NAAQS. The SJVAB attainment statuses for each of the criteria pollutants for Fresno County are listed in Table A**.**

Table A: SJVAB Air Quality Attainment Status for Fresno County

Pollutant	State	Federal
Ozone (1-hour)	Severe/Nonattainment	Standard Revoked
Ozone (8-hour)	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	No Federal Regulation
Hydrogen Sulfide	Unclassified	No Federal Regulation

Source: California Air Resources Board (2016) and United States Environmental Protection Agency (2016).
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Ozone levels, as measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by the SJVAPCD and other regional, State, and federal agencies. The reduction of peak concentrations represents progress in improving public health; however, the SJVAB still exceeds the State standard for 1-hour and 8-hour ozone levels. In addition, the SJVAB was designated as a serious nonattainment area for the federal 1997 8-hour ozone level in June 2004. The USEPA lowered the national 8-hour ozone standard from 0.80 to 0.75 parts per million (ppm) on May 27, 2008. The San Joaquin Valley is classified nonattainment for the 1-hour and 8-hour ozone standards at the State and federal level, although a request for redesignation as attainment of the 1-hour ozone standard was submitted to the USEPA in 2014.

During the 2019 to 2021 time period, the monitoring station of 908 N. Villa Avenue located in Clovis (the closest monitoring station to the project site) recorded the following exceedances of the State and federal 1-hour and 8-hour ozone standards:[1]

- 27 exceedances of the federal 8-hour ozone standard in 2019, 36 in 2020, and 34 in 2021
- 30 exceedances of the State 8-hour ozone standard in 2019, 41 in 2020, and no data in 2021
- No exceedances of the federal 1-hour ozone standard in 2019, 2 in 2020, and 0 in 2021
- 6 exceedances of the State 1-hour ozone standard in 2019, 12 in 2020, and no data in 2021

National and State standards have also been established for $PM_{2.5}$ over 24-hour and yearly averaging periods. $PM_{2.5}$, because of the small size of individual particles, can be especially harmful to human health. $PM_{2.5}$ is emitted by common combustion sources such as cars, trucks, buses, and power plants, in addition to ground-disturbing activities. The SJVAB is considered a nonattainment area for the $PM_{2.5}$ standard at the State and federal levels. The following $PM_{2.5}$ exceedances were recorded at the Clovis air monitoring station:

- 1 exceedance of the federal 24-hour $PM_{2.5}$ standard in 2019, 40 in 2020, and 0 in 2021

The SJVAB is classified as a PM_{10} nonattainment area at the State level and was redesignated from serious nonattainment to attainment of the federal PM_{10} standard in 2008. Because the SJVAB was redesignated from nonattainment to attainment, a PM_{10} maintenance plan was adopted in 2007 and is required to be updated every 10 years. The following PM_{10} exceedances were recorded at the Clovis air monitoring station:

- The federal 24-hour PM_{10} standard had no exceedances in 2019 and only one exceedance in both 2020 and 2021.

- 11 exceedances of the State 24-hour PM_{10} standard in 2019, 114 in 2020, and no data for 2021.

No exceedances of the State or federal CO standards have been recorded at any of the region's monitoring stations since 1991. The SJVAB is currently considered an attainment area for State and federal 8-hour and 1-hour CO standards.

Greenhouse Gas and Global Climate Change Background

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2);
- Methane (CH_4);
- Nitrous oxide (N_2O);
- Hydrofluorocarbons (HFCs);

[1] California Air Resources Board. 2021. iADAM Air Quality Data Statistics. Website: www.arb.ca.gov/adam (accessed July 2022).

- Perfluorocarbons (PFCs); and
- Sulfur hexafluoride (SF_6).

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally occurring GHGs such as CO_2, CH_4, and N_2O, some gases, such as HFCs, PFCs, and SF_6, are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

REGULATORY FRAMEWORK

Air quality and GHG standards and the regulatory framework are discussed below.

Federal Regulations

At the federal level, the USEPA has been charged with implementing national air quality programs. USEPA air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was enacted in 1963. The FCAA was amended in 1970, 1977, and 1990.

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the USEPA has the authority to regulate CO_2 emissions under the FCAA. While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change. This includes the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the Clean Air Act, finding that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

California Air Resources Board

The California Air Resources Board (CARB) is the State's "clean air agency." The CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations. The CARB is also the lead agency for implementing climate change regulations in the State. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

Assembly Bill 2588 Air Toxics "Hot Spots" Information and Assessment Act

Under Assembly Bill (AB) 2588, stationary sources of air pollutants are required to report the types and quantities of certain substances their facilities routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, determine health risks, and notify nearby residents of significant risks.

The California Air Resources Board Handbook

The CARB has developed an Air Quality and Land Use Handbook[1] which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. According to the CARB Handbook, recent air pollution studies have shown an association between respiratory and other noncancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. The CARB Handbook recommends that county and city planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, day-care centers, schools, and playgrounds.

Land use designations with air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the CARB Handbook include taking steps to avoid siting new, sensitive land uses, including:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day;
- Within 1,000 feet of a major service and maintenance rail yard;
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries;
- Within 300 feet of any dry cleaning operation (for operations with two or more machines, provide 500 feet); and

[1] CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The CARB Handbook specifically states that its recommendations are advisory and acknowledges land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

The recommendations are generalized and do not consider site-specific meteorology, freeway truck percentages, or other factors that influence risk for a particular project site. The purpose of this guidance is to further examine project sites for actual health risk associated with the location of new, sensitive land uses.

Assembly Bill 32 (2006), California Global Warming Solutions Act

California's major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The CARB has established the level of GHG emissions in 1990 at 427 million metric tons (MMT) CO_2e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008, and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT of CO_2e, or approximately 30 percent, from the State's projected 2020 emission level of 596 MMT of CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e)
- The Low-Carbon Fuel Standard (15.0 MMT CO_2e)
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e)
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e)

The Scoping Plan identifies 18 emission reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related GHG targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high-speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures would result in a total reduction of 174 MMT CO_2e by 2020.

On August 24, 2011, the CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust California Environmental Quality Act (CEQA)

equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020 and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. The CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[1] to reflect the 2030 target set by Executive Order B-30-15 and codified by Senate Bill (SB) 32.

The 2022 Scoping Plan[2] assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

Senate Bill 375 (2008)

Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, the CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). The CARB may update the targets every 4 years and must update them every 8 years. MPOs in turn must demonstrate how their plans, policies, and transportation investments meet the targets set by the CARB through Sustainable Community Strategies (SCS). The SCS are included with the Regional Transportation Plan (RTP), a report required by State law. However, if an MPO finds that its SCS will not meet the GHG reduction target, it may prepare an Alternative Planning Strategy (APS). The APS identifies the impediments to achieving the targets.

Executive Order B-30-15 (2015)

Governor Jerry Brown signed Executive Order B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

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1 California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November.

2 CARB. 2021. *2022 Scoping Plan Update*. May 10. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed October 2023).

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. The CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target and therefore is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act

SB 350, signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent.
- Increase energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for the private utilities and by the California Energy Commission for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other nonrenewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to State energy agencies under existing law. The addition made by this legislation requires State energy agencies to plan for and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197

In the summer of 2016, the Legislature passed, and the Governor signed, SB 32 and AB 197. 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 Governor Brown's April 2015 Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change (IPCC) analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO_2e and reduce the likelihood of catastrophic impacts from climate change.

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 meant to provide easier public access to air emissions data that are collected by the CARB was posted in December 2016.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which raises California's renewable portfolio standard requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the

bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18

Executive Order B-55-18, signed on September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs the CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Assembly Bill (AB) 1279

AB 1279 was signed in September of 2022, and codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels by 2045 and directs CARB to work with relevant state agencies to achieve these goals.

Safer Affordable Fuel-Efficient Vehicles Rule

On March 21, 2020, the USEPA and National Highway Traffic Safety Administration (NHTSA) finalized the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks.[1] The SAFE Vehicles Rule amends certain existing Corporate Average Fuel Economy and tailpipe CO_2 emissions standards for passenger cars and light trucks and establishes new standards, all covering model years 2021 through 2026. More specifically, NHTSA set new Corporate Average Fuel Economy standards for model years 2022 through 2026 and amended its 2021 model year Corporate Average Fuel Economy standards, and the USEPA amended its CO_2 emission standards for model years 2021 and later.

San Joaquin Valley Air Pollution Control District

The SJVAPCD has specific air quality-related planning documents, rules, and regulations. This section summarizes the local planning documents and regulations that may be applicable to the proposed project as administered by the SJVAPCD with CARB oversight.

Rule 8011—General Requirements: Fugitive Dust Emission Sources

Fugitive dust regulations are applicable to outdoor fugitive dust sources. Operations, including construction operations, must control fugitive dust emissions in accordance with SJVAPCD

[1] United States Department of Transportation. 2020. The Safer Affordable Fuel-Efficient "SAFE" Vehicle Rule. March 31. Website: https://www.nhtsa.gov/corporate-average-fuel-economy/safe#:~:text=The%20Safer%20Affordable%20Fuel%2DEfficient%20(SAFE)%20Vehicles%20Rule%2C,model%20years%202021%20through%202026 (accessed July 2022).

Regulation VIII. According to Rule 8011, the SJVAPCD requires the implementation of control measures for fugitive dust emission sources.

Guidance for Assessing and Mitigating Air Quality Impacts

The SJVAPCD prepared the GAMAQI to assist lead agencies and project applicants in evaluating the potential air quality impacts of projects in the SJVAB. The GAMAQI provides SJVAPCD-recommended procedures for evaluating potential air quality impacts during the CEQA environmental review process. The GAMAQI provides guidance on evaluating short-term (construction) and long-term (operational) air emissions. The most recent version of the GAMAQI, adopted on March 19, 2015, was used in this evaluation. It contains guidance on the following:

- Criteria and thresholds for determining whether a project may have a significant adverse air quality impact
- Specific procedures and modeling protocols for quantifying and analyzing air quality impacts
- Methods to mitigate air quality impacts
- Information for use in air quality assessments and environmental documents, including air quality, regulatory setting, climate, and topography data

Climate Change Action Plan

In August 2008, the SJVAPCD adopted the Climate Change Action Plan (CCAP).[1] The CCAP directed the SJVAPCD to develop guidance to assist lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project-specific GHG emissions on global climate change.

In December 2009, the SJVAPCD adopted the document: Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA[2] and the policy: District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency.[3] The guidance and policy rely on the use of performance-based standards, otherwise known as Best Performance Standards (BPS),[4] to assess significance of project-specific GHG emissions on global climate change during the environmental review process, as required by CEQA. Projects implementing BPS in accordance with SJVAPCD's guidance would be determined to have a less than significant individual and cumulative impact on GHG emissions and would not require project-specific quantification of GHG emissions.

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1 San Joaquin Valley Air Pollution Control District. 2008. Climate Change Action Plan. November.

2 San Joaquin Valley Air Pollution Control District. 2009. Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17.

3 San Joaquin Valley Air Pollution Control District. 2009. Addressing GHG Emission Impacts for Stationary Source Projects under CEQA When Serving as the Lead Agency. December 17.

4 San Joaquin Valley Air Pollution Control District. 2009. Final Staff Report Appendix J: GHG Emission Reduction Measures – Development Projects. December 17.

City of Clovis

General Plan. The City of Clovis (City) addresses air quality in the Air Quality Element of the City's General Plan.[1] The Air Quality Element contains goals and policies that work to improve air quality through effective land use and transportation planning, regional cooperation, and a reduction in emissions. The following policies from the Air Quality Element are applicable for the proposed project:

- **Policy 1.2: Sensitive Land Uses.** Prohibit, without sufficient mitigation, the future siting of sensitive land uses within the distances of emissions sources as defined by the California Air Resources Board.

- **Policy 1.3: Construction Activities**. Encourage the use of best management practices during construction activities to reduce emissions of criteria pollutants as outlined by the San Joaquin Valley Air Pollution Control District (SJVAPCD).

- **Policy 1.8: Trees.** Maintain or plant trees where appropriate to provide shade, absorb carbon, improve oxygenation, slow stormwater runoff, and reduce the heat island effect.

- **Policy 2.6: Innovative Mitigation.** Encourage innovative mitigation measures to reduce air quality impacts by coordinating with the SJVAPCD, project applicants, and other interested parties.

METHODOLOGY

Construction Emissions

Construction activities can generate a substantial amount of air pollution. Construction activities are considered temporary; however, short-term impacts can contribute to exceedances of air quality standards. Construction activities include site preparation, earthmoving, and general construction. The emissions generated from these common construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 computer program was used to calculate emissions from on-site construction equipment and emissions from worker and vehicle trips to the site.

As discussed in the Project Description, construction of the proposed project is expected to begin in January 2023[2], which was included in CalEEMod. The proposed project would not require any soil import or export but would include the demolition of the existing residence, which was also

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1 Clovis, City of. 2014. City of Clovis General Plan, Air Quality Element. August. Website: https://cityofclovis.com/planning-and-development/planning/master-plans/general-plan/air-quality-element/ (accessed July 2022).

2 The CalEEMod analysis evaluated project construction emissions with a start date of January 2023 and a duration of approximately 11 months. The proposed project's construction schedule has since been modified that project construction would begin later; however, project construction would still occur over an 11-month duration. This minimal modification to the project construction schedule would not result in more severe air quality or greenhouse gas impacts than what is described within.

included in CalEEMod. Other detailed construction information is currently unavailable; therefore, this analysis utilizes CalEEMod default assumptions. This analysis also assumes use of Tier 2 construction equipment, as required by current CARB regulations for off-road vehicles.

Construction Health Risk Assessment

A construction health risk assessment (HRA), which evaluates construction-period health risk to off-site receptors, was performed for the proposed project, and the analysis is presented below. To estimate the potential cancer risk associated with construction of the proposed project from equipment exhaust (including diesel particulate matter), a dispersion model was used to translate an emission rate from the source location to a concentration at the receptor location of interest (i.e., a nearby residence and worksites). Dispersion modeling varies from a simpler, more conservative screening-level analysis to a more complex and refined detailed analysis. This refined assessment was conducted using the CARB exposure methodology with the air dispersion modeling performed using the USEPA dispersion model AERMOD. The model provides a detailed estimate of exhaust concentrations based on site and source geometry, source emissions strength, distance from the source to the receptor, and meteorological data. CARB's Hot Spots Analysis & Reporting Program (HARP2) software was utilized to complete the risk analysis, consistent with guidance from the SJVAPCD.

Operational Emissions

This air quality analysis includes estimating emissions associated with long-term operation of the project. Indirect emissions of criteria pollutants with regional impacts would be emitted by project-generated vehicle trips. In addition, localized air quality impacts (i.e., higher carbon monoxide concentrations or "hot-spots") near intersections or roadway segments in the project vicinity would also potentially occur due to project-generated vehicle trips.

Consistent with the SJVAPCD's guidance for estimating emissions, the CalEEMod computer program was used to calculate the long-term operational emissions associated with the project. The analysis was conducted using land use codes *Apartment Low Rise, Parking Lot,* and *City Park.* As identified in the Project Description, the proposed project is expected to generate 175 trips per day, which was included in CalEEMod. Where project-specific data were not available, default assumptions (e.g., energy usage, water usage, and solid waste generation) from CalEEMod were used to estimate project emissions. CalEEMod output sheets are attached.

Greenhouse Gas Emissions

GHG emissions associated with the project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term GHG emissions associated with project-related vehicle trips. Recognizing that the field of global climate change analysis is rapidly evolving, the approaches advocated most recently indicate that for determining a project's contribution to GHG emissions, lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the project area. The CalEEMod results were used to quantify GHG emissions generated by the project.

THRESHOLDS OF SIGNIFICANCE

The *State CEQA Guidelines* indicate that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under an applicable federal or State ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SJVAPCD defines emissions thresholds in the GAMAQI, established based on the attainment status of the air basin in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds (Table B) are regarded as conservative and would overstate an individual project's contribution to health risks. The related impacts are discussed further in the Impact Analysis section.

Table B: SJVAPCD Construction and Operation Thresholds of Significance (Tons per Year)

	CO	NO_x	ROG	SO_x	PM_{10}	$PM_{2.5}$
Construction Thresholds	100	10	10	27	15	15
Operation Thresholds	100	10	10	27	15	15

Source: Guidance for Assessing and Mitigating Air Quality Impacts (SJVAPCD 2015).
CO = carbon monoxide
NO_X = nitrous oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic compounds
SJVAPCD = San Joaquin Valley Air Pollution Control District
SO_X = sulfur oxide

The emissions thresholds in the SJVAPCD GAMAQI were established based on the attainment status of the air basin in regard to air quality standards for specific criteria pollutants.[1] Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emission thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

[1] San Joaquin Valley Air Pollution Control District. 2015. Op. cit.

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

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Neither the City of Clovis, County of Fresno, nor SJVAPCD has developed or adopted numeric GHG significance thresholds. Therefore, this analysis evaluates the GHG emissions based on the project's consistency with State GHG reduction goals.

PROJECT IMPACT ANALYSIS

The proposed project would release emissions over the long term associated with traffic generation and operation of the project site. Emissions would include criteria air pollutants and GHG emissions. The sections below describe the proposed project's consistency with applicable air quality plans, estimated project emissions, and the significance of impacts with respect to CEQA and consistency with the SJVAPCD's rules and regulations.

Air Quality

Consistency with Applicable Air Quality Plans

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a nonattainment 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 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.[1]

To ensure the SJVAB's continued attainment of the USEPA PM_{10} standard, the SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007.[2] The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards in November 2018 to address the USEPA 1997 annual $PM_{2.5}$ standard of 15 micrograms per cubic meter ($\mu g/m^3$) and 24-hour $PM_{2.5}$ standard of 65 $\mu g/m^3$, the 2006 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$, and the 2012 annual $PM_{2.5}$ standard of 12 $\mu g/m^3$.[3]

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1 San Joaquin Valley Air Pollution Control District, 2016. *2016 Plan for the 2008 8-Hour Ozone Standard*. June 16. Website: www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm (accessed July 2022).

2 San Joaquin Valley Air Pollution Control District, 2007. *2007 PM_{10} Maintenance Plan and Request for Redesignation*. Available online at: www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf (accessed July 2022).

3 San Joaquin Valley Air Pollution Control District, 2018. *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards*. November 15. Website: http://valleyair.org/pmplans/documents/2018/pm-plan-adopted/2018-Plan-for-the-1997-2006-and-2012-PM2.5-Standards.pdf (accessed July 2022).

CEQA requires that certain proposed projects be analyzed for consistency with the applicable air quality plan. For a project to be consistent with SJVAPCD air quality plans, the pollutants emitted from a project should not exceed the SJVAPCD emission thresholds or cause a significant impact on air quality. In addition, emission reductions achieved through implementation of offset requirements are a major component of the SJVAPCD air quality plans. As discussed below, construction of the proposed project would not result in the generation of criteria air pollutants that would exceed the SJVAPCD thresholds of significance. Implementation of Condition of Approval (COA) AIR-1, provided below, would further reduce construction dust impacts. Operational emissions associated with the proposed project would also not exceed SJVAPCD established significance thresholds. Therefore, the proposed project would not conflict with or obstruct implementation of SJVAPCD air quality plans.

Criteria Pollutant Analysis

In developing thresholds of significance for air pollutants, the SJVAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. The following analysis assesses the potential construction- and operation-related air quality impacts.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, nitrous oxides (NO_x), reactive organic gases (ROG), directly emitted particulate matter ($PM_{2.5}$ and PM_{10}), and toxic air contaminants (TACs) such as diesel exhaust particulate matter.

Site preparation and project construction would include the following tasks: demolition, site preparation, grading, building construction, paving, and architectural coatings. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The SJVAPCD has established Regulation VIII measures for reducing fugitive dust emissions (PM_{10}). With the implementation of Regulation VIII measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, ROGs, and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed.

These emissions would be temporary and limited to the immediate area surrounding the construction site.

CalEEMod was used to calculate emissions from on-site construction equipment and emissions from worker and vehicle trips to the site. Construction-related emissions are presented in Table C, below. CalEEMod output sheets are attached.

Table C: Project Construction Emissions (Tons/year)

Project Construction	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction Emissions	0.4	2.1	1.7	<0.1	0.1	0.1
SJVAPCD Thresholds	**10**	**10**	**100**	**27**	**15**	**15**
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (July 2022).

CO = carbon monoxide
NO_X = nitrous oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic compounds
SJVAPCD = San Joaquin Valley Air Pollution Control District
SO_2 = sulfur dioxide

As shown in Table C, construction emissions associated with the project would not exceed the SJVAPCD's thresholds for ROG, NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions. In addition to the construction period thresholds of significance, the SJVAPCD has implemented Regulation VIII measures for dust control during construction. Implementation of COA AIR-1 would ensure that the proposed project complies with Regulation VIII.

COA AIR-1 Consistent with San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation VIII (Fugitive PM_{10} Prohibitions), the following controls are required to be included as specifications for the proposed project and implemented at the construction site:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant or covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained.

- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)

- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/ suppressant.

Construction emissions associated with the proposed project would be less than significant with implementation of COA AIR-1. Therefore, construction of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard.

Operational Emissions. Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed project.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement, and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Energy source emissions result from activities in buildings for which electricity and natural gas are used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity or natural gas) and the emission factor of the fuel source. The proposed project would generate a minimal amount of energy source emissions, which would primarily be associated with lighting and heating.

Typically, area source emissions consist of direct sources of air emissions located at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the project would include emissions from the use of landscaping equipment.

Emission estimates for operation of the project were calculated using CalEEMod. The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project, emissions are released in other areas of the SJVAB. The annual emissions associated with project operational trip generation, energy, and area sources are identified in Table D for ROG, NO_x, CO, sulfur oxide (SO_x), PM_{10}, and $PM_{2.5}$. CalEEMod output sheets are attached.

As shown in Table D, the proposed project would not exceed annual criteria pollutant significance thresholds for ROG, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS.

Table D: Project Operation Emissions (Tons per Year)

	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Source Emissions	0.1	<0.1	0.2	<0.1	<0.1	<0.1
Energy Source Emissions	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile Source Emissions	0.1	0.1	0.8	<0.1	0.2	0.1
Total Project Operation Emissions	**0.2**	**0.2**	**1.0**	**<0.1**	**0.2**	**0.1**
SJVAPCD Significance Threshold	**10**	**10**	**100**	**27**	**15**	**15**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (July 2022).
Note: Some values may not appear to add up correctly due to rounding.

CO = carbon monoxide
NO_X = nitrous oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic compounds
SJVAPCD = San Joaquin Valley Air Pollution Control District
SO_X = sulfur oxide

Sensitive Receptors

Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day-care centers, nursing homes, hospitals, and residential dwelling units. The closest sensitive receptors to the project site include single-family residences located immediately north and west of the project site boundary, as well as a school located to the east of the proposed project site.

Construction of the proposed project may expose these surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). As such, a construction HRA, which evaluates construction-period health risk to off-site receptors, was performed for the proposed project and is summarized below.

According to the SJVAPCD, a project would result in a significant impact if it would: individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 20.0 in one million or an increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute).

The proposed project site is located in an urban area in close proximity to existing residential uses that could be exposed to diesel emission exhaust during the construction period. As such, to estimate the potential cancer risk from project construction equipment exhaust (including diesel particulate matter), a dispersion model was used to translate an emission rate from the source location to a concentration at the receptor location (i.e., a nearby residential land use). Dispersion modeling varies from a simpler, more conservative screening-level analysis to a more complex and refined detailed analysis. This refined assessment was conducted using CARB's exposure methodology, with the air dispersion modeling performed using the USEPA dispersion model

AERMOD. The model provides a detailed estimate of exhaust concentrations based on site and source geometry, source emissions strength, distance from the source to the receptor, and site-specific meteorological data.

Table E below identifies the results of the analysis utilizing the CalEEMod outputs, assuming the use of Tier 2 construction equipment. Model snapshots of the sources are provided in Attachment B.

Table E: Unmitigated Inhalation Health Risks from Project Construction to Off-Site Receptors

	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index
Residential Receptor Risk	39.29	0.044	0.000
School Receptor Risk	63.78	0.072	0.000
Threshold	**20.0**	**1.0**	**1.0**
Exceed?	**Yes**	**No**	**No**

Source: LSA (October 2023).

As shown in Table E, the maximum cancer risk for the school receptor MEI would be 63.78 in one million, which would exceed the SJVAPCD cancer risk threshold of 20 in one million. The residential receptor risk would be lower at 39.29 in one million and would also exceed the threshold. The total chronic hazard index would be 0.044 for the residential receptor MEI and 0.072 for the school receptor MEI, which would both be below the threshold of 1.0. In addition, the total acute hazard index would be nominal (0.000), which would also not exceed the threshold of 1.0. Therefore, since the maximum cancer risk for the residential and school receptor MEI would exceed the SJVAPCD threshold, implementation of COA AIR-2 would be required to reduce substantial pollutant concentrations during project construction by requiring the use of Tier 4 construction equipment.

COA AIR-2 During construction of the proposed project, the project contractor shall ensure all off-road diesel-powered construction equipment of 50 horsepower or more used for the project construction at a minimum meets the California Air Resources Board Tier 4 Final emissions standards or equivalent. Verification shall be provided to the City of Clovis for confirmation.

Table F identifies the results of the analysis with implementation of COA AIR-2.

Table F: Mitigated Inhalation Health Risks from Project Construction to Off-Site Receptors

	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index
Residential Receptor Risk	2.45	0.003	0.000
School Receptor Risk	3.99	0.004	0.000
Threshold	**20.0**	**1.0**	**1.0**
Exceed?	**No**	**No**	**No**

Source: LSA (October 2023).

As shown in Table F, the mitigated cancer risk at the residential receptor MEI would be 2.45 in one million and the mitigated cancer risk at the school receptor MEI would be 3.99 in one million, which would not exceed the SJVAPCD cancer risk of 20 in one million. Therefore, with implementation of COA AIR-2, construction of the proposed project would not exceed SJVAPCD thresholds and would not expose nearby sensitive receptors to substantial pollutant concentrations.

Once the project is constructed, the project would not be a source of substantial emissions. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during project construction and operation.

Objectionable Odors

The SJVAPCD addresses odor criteria within the GAMAQI. The district has not established a rule or standard regarding odor emissions, rather, the district has a nuisance rule: "Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact."

During project construction, some odors may be present due to diesel exhaust. However, these odors would be temporary and limited to the construction period. The proposed uses are not anticipated to emit any objectionable odors. The fuel pumps are not expected to result in odors as they would be equipped with vapor recovery systems. Any odors in general would be confined mainly to the project site and would readily dissipate. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Greenhouse Gas Emissions

Generation of Greenhouse Gas Emissions

This section discusses the project's impacts related to the release of GHG emissions for both construction and operational phases of the project.

Construction GHG Emissions. Construction-related GHG emissions are typically emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. Construction activities, such as grading, site preparation, and construction, on-site construction vehicles, equipment hauling materials to and from a project site, and motor vehicles transporting the construction crew typically produce combustion emissions from various sources.

The SJVAPCD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are encouraged to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that construction of the proposed project would generate a total of approximately 243.9 metric tons of CO_2e.

Operational GHG Emissions. Long-term GHG emissions are typically generated from mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect

emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions would include project-generated vehicle trips to and from the project. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site. Energy source emissions would be generated at off-site utility providers as a result of increased electricity demand generated by the project. Waste source emissions generated by the proposed project include energy generated by land filling and other methods of disposal related to transporting and managing project-generated waste. In addition, water source emissions associated with the proposed project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

Emissions estimates for operation of the proposed project were calculated using CalEEMod. Table G shows the emissions sources by category; mobile source emissions are the largest category, at approximately 78.6 percent of total CO_2e emissions, followed by energy source emissions at approximately 12.4 percent of the total, area source emissions at approximately 4.9 percent of the total, waste source emissions at approximately 2.5 percent of the total, and water source emissions with 1.5 percent of the total emissions. CalEEMod output sheets are attached.

Table G: Operational Greenhouse Gas Emissions

Emissions Category	Operational Emissions (Metric Tons per Year)				
	CO_2	CH_4	N_2O	CO_2e	Percent of Total
Area Source	11.6	<0.1	<0.1	11.7	4.9
Energy Source	29.2	<0.1	<0.1	29.4	12.4
Mobile Source	183.0	<0.1	<0.1	186.1	78.6
Waste Source	2.4	0.1	0.0	6.0	2.5
Water Source	1.7	0.1	<0.1	3.5	1.5
Total Operational				**236.8**	**100.0**

Source: Compiled by LSA (July 2022).
Note = Some values may not appear to add up correctly due to rounding.

CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
N_2O = nitrous oxide

As shown in Table G, the proposed project would generate approximately 236.8 metric tons of CO_2e annually. The SJVAPCD has not established a numeric threshold for GHG emissions. As discussed, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds or consistency with a regional GHG reduction plan (such as a Climate Action Plan). Neither the City of Clovis, County of Fresno, nor SJVAPCD has developed or adopted numeric GHG significance thresholds. Therefore, the proposed project was analyzed for consistency with State GHG reduction goals, as discussed below.

Consistency with Greenhouse Gas Reduction Plans

The proposed project was analyzed for consistency with the goals of the 2022 Scoping Plan, Executive Order B-30-15, SB 32, and AB 197. 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 Executive Order B-30-15. SB 32 keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with a PCC analysis of the global emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO_2e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to the CARB in the following areas 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 the CARB was posted in December 2016.

In addition, the 2022 Scoping Plan assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The 2022 Scoping Plan states that in almost all sectors, electrification will play an important role. The 2022 Scoping Plan evaluates clean energy and technology options and the transition away from fossil fuels, including adding four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California will be zero-emission by 2035, and all other fleets will have transitioned to zero-emission as fully possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as 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 California Code of Regulations, established by the California Energy Commission and the City's current building code, 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 project would be required to

comply with the latest Title 24 standards of the California Code of Regulations, which includes a variety of different measures, including reduction of wastewater and water use. In addition, the proposed project would install low maintenance landscape features. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

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. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. However, 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.

Therefore, the proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in Executive Order B-30-15, SB 32, AB 197, and AB1279 and would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

CONCLUSION

Based on the analysis presented above, with implementation of COA AIR-1, construction and operational activities associated with the proposed project would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance. In addition, with implementation of COA AIR-2, the proposed project is not expected to produce significant emissions that would affect nearby sensitive receptors. The proposed project would also not result in objectionable odors affecting a substantial number of people. The project would also not result in the emission of substantial GHG emissions. Additionally, the project would not conflict with the State's GHG emissions reductions objectives embodied in Executive Order B-30-15, SB 32, AB 197, or AB 1279. Therefore, the proposed project's incremental contribution to cumulative GHG emissions would not be cumulatively considerable.

Attachments: A: CalEEMod Output Sheets
B: HRA Model Snapshots

ATTACHMENT A

CALEEMOD OUTPUT SHEETS

DeWolf Apartments Project - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

DeWolf Apartments Project

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	26.00	Space	0.23	10,400.00	0
City Park	0.10	Acre	0.10	4,356.00	0
Apartments Low Rise	26.00	Dwelling Unit	1.30	26,000.00	74

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total project site is 1.63 acres

Construction Phase - Default schedule

Demolition - Demolition of a single-family residnece

Grading - Balanced site, no soil export or import

Vehicle Trips - Based on a trip generation of 175 ADT

Construction Off-road Equipment Mitigation - construction equipment tier 2

Area Mitigation -

Energy Mitigation -

Water Mitigation - Project would implement low mainatance landscape features

DeWolf Apartments Project - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	1.63	1.30
tblVehicleTrips	ST_TR	8.14	6.74
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	6.28	6.74
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	7.32	6.74
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	1.30	1.63
tblWoodstoves	NumberNoncatalytic	1.30	1.63

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.4306	1.4213	1.5445	2.8800e-003	0.0466	0.0621	0.1087	0.0168	0.0596	0.0764	0.0000	242.3175	242.3175	0.0404	1.9800e-003	243.9179
Maximum	**0.4306**	**1.4213**	**1.5445**	**2.8800e-003**	**0.0466**	**0.0621**	**0.1087**	**0.0168**	**0.0596**	**0.0764**	**0.0000**	**242.3175**	**242.3175**	**0.0404**	**1.9800e-003**	**243.9179**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3534	2.0946	1.6662	2.8800e-003	0.0349	0.0845	0.1194	0.0113	0.0845	0.0958	0.0000	242.3173	242.3173	0.0404	1.9800e-003	243.9177
Maximum	**0.3534**	**2.0946**	**1.6662**	**2.8800e-003**	**0.0349**	**0.0845**	**0.1194**	**0.0113**	**0.0845**	**0.0958**	**0.0000**	**242.3173**	**242.3173**	**0.0404**	**1.9800e-003**	**243.9177**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**17.92**	**-47.38**	**-7.88**	**0.00**	**25.11**	**-36.05**	**-9.81**	**32.68**	**-41.69**	**-25.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

DeWolf Apartments Project - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2023	4-1-2023	0.4634	0.6261
2	4-2-2023	7-1-2023	0.4415	0.6019
3	7-2-2023	9-30-2023	0.4415	0.6019
		Highest	0.4634	0.6261

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1671	0.0169	0.4990	1.0600e-003		0.0511	0.0511		0.0511	0.0511	6.5896	11.5792	18.1689	0.0313	2.1000e-004	19.0135
Energy	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	29.2092	29.2092	2.0300e-003	5.5000e-004	29.4233
Mobile	0.0861	0.1457	0.8158	1.9500e-003	0.1925	1.6000e-003	0.1941	0.0515	1.5000e-003	0.0530	0.0000	182.9558	182.9558	9.5000e-003	9.9200e-003	186.1497
Waste						0.0000	0.0000		0.0000	0.0000	2.4298	0.0000	2.4298	0.1436	0.0000	6.0197
Water						0.0000	0.0000		0.0000	0.0000	0.5374	1.2325	1.7700	0.0554	1.3300e-003	3.5505
Total	**0.2551**	**0.1789**	**1.3217**	**3.1100e-003**	**0.1925**	**0.0540**	**0.2465**	**0.0515**	**0.0539**	**0.1054**	**9.5569**	**224.9767**	**234.5336**	**0.2419**	**0.0120**	**244.1567**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1338	0.0120	0.1974	7.0000e-005		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	11.5792	11.5792	5.2000e-004	2.1000e-004	11.6537
Energy	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	29.2092	29.2092	2.0300e-003	5.5000e-004	29.4233
Mobile	0.0861	0.1457	0.8158	1.9500e-003	0.1925	1.6000e-003	0.1941	0.0515	1.5000e-003	0.0530	0.0000	182.9558	182.9558	9.5000e-003	9.9200e-003	186.1497
Waste						0.0000	0.0000		0.0000	0.0000	2.4298	0.0000	2.4298	0.1436	0.0000	6.0197
Water						0.0000	0.0000		0.0000	0.0000	0.5374	1.2091	1.7465	0.0554	1.3300e-003	3.5268
Total	**0.2219**	**0.1740**	**1.0201**	**2.1200e-003**	**0.1925**	**4.7800e-003**	**0.1973**	**0.0515**	**4.6800e-003**	**0.0562**	**2.9672**	**224.9533**	**227.9205**	**0.2110**	**0.0120**	**236.7733**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**13.02**	**2.75**	**22.82**	**31.83**	**0.00**	**91.15**	**19.97**	**0.00**	**91.32**	**46.69**	**68.95**	**0.01**	**2.82**	**12.74**	**0.00**	**3.02**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2023	1/27/2023	5	20	
2	Site Preparation	Site Preparation	1/28/2023	1/31/2023	5	2	
3	Grading	Grading	2/1/2023	2/6/2023	5	4	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	2/7/2023	11/13/2023	5	200	
5	Paving	Paving	11/14/2023	11/27/2023	5	10	
6	Architectural Coating	Architectural Coating	11/28/2023	12/11/2023	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.23

Residential Indoor: 52,650; Residential Outdoor: 17,550; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 624 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	25.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.6000e-004	0.0000	8.6000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1432	0.1346	2.4000e-004		6.7700e-003	6.7700e-003		6.3300e-003	6.3300e-003	0.0000	21.0866	21.0866	5.3500e-003	0.0000	21.2202
Total	**0.0147**	**0.1432**	**0.1346**	**2.4000e-004**	**8.6000e-004**	**6.7700e-003**	**7.6300e-003**	**1.3000e-004**	**6.3300e-003**	**6.4600e-003**	**0.0000**	**21.0866**	**21.0866**	**5.3500e-003**	**0.0000**	**21.2202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.0000e-004	1.1000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2266	0.2266	0.0000	4.0000e-005	0.2373
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.6000e-004	3.0700e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0400e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.8276	0.8276	2.0000e-005	2.0000e-005	0.8353
Total	**4.1000e-004**	**7.6000e-004**	**3.1800e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1100e-003**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**1.0542**	**1.0542**	**2.0000e-005**	**6.0000e-005**	**1.0725**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9000e-004	0.0000	3.9000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.8600e-003	0.2121	0.1542	2.4000e-004		7.1800e-003	7.1800e-003		7.1800e-003	7.1800e-003	0.0000	21.0865	21.0865	5.3500e-003	0.0000	21.2202
Total	**8.8600e-003**	**0.2121**	**0.1542**	**2.4000e-004**	**3.9000e-004**	**7.1800e-003**	**7.5700e-003**	**6.0000e-005**	**7.1800e-003**	**7.2400e-003**	**0.0000**	**21.0865**	**21.0865**	**5.3500e-003**	**0.0000**	**21.2202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.0000e-004	1.1000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2266	0.2266	0.0000	4.0000e-005	0.2373
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.6000e-004	3.0700e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0400e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.8276	0.8276	2.0000e-005	2.0000e-005	0.8353
Total	**4.1000e-004**	**7.6000e-004**	**3.1800e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1100e-003**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**1.0542**	**1.0542**	**2.0000e-005**	**6.0000e-005**	**1.0725**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0124	6.6400e-003	2.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**1.1300e-003**	**0.0124**	**6.6400e-003**	**2.0000e-005**	**6.2700e-003**	**5.1000e-004**	**6.7800e-003**	**3.0000e-003**	**4.7000e-004**	**3.4700e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0509	0.0509	0.0000	0.0000	0.0514
Total	**2.0000e-005**	**2.0000e-005**	**1.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0509**	**0.0509**	**0.0000**	**0.0000**	**0.0514**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9000e-004	0.0150	9.8200e-003	2.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**4.9000e-004**	**0.0150**	**9.8200e-003**	**2.0000e-005**	**2.8200e-003**	**3.7000e-004**	**3.1900e-003**	**1.3500e-003**	**3.7000e-004**	**1.7200e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0509	0.0509	0.0000	0.0000	0.0514
Total	**2.0000e-005**	**2.0000e-005**	**1.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0509**	**0.0509**	**0.0000**	**0.0000**	**0.0514**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0289	0.0174	4.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**2.6700e-003**	**0.0289**	**0.0174**	**4.0000e-005**	**0.0142**	**1.2100e-003**	**0.0154**	**6.8500e-003**	**1.1100e-003**	**7.9600e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1273	0.1273	0.0000	0.0000	0.1285
Total	**6.0000e-005**	**4.0000e-005**	**4.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1273**	**0.1273**	**0.0000**	**0.0000**	**0.1285**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2500e-003	0.0362	0.0243	4.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**1.2500e-003**	**0.0362**	**0.0243**	**4.0000e-005**	**6.3700e-003**	**9.7000e-004**	**7.3400e-003**	**3.0800e-003**	**9.7000e-004**	**4.0500e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1273	0.1273	0.0000	0.0000	0.1285
Total	**6.0000e-005**	**4.0000e-005**	**4.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1273**	**0.1273**	**0.0000**	**0.0000**	**0.1285**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1523	1.1710	1.2611	2.2100e-003		0.0515	0.0515		0.0497	0.0497	0.0000	181.5991	181.5991	0.0308	0.0000	182.3701
Total	**0.1523**	**1.1710**	**1.2611**	**2.2100e-003**		**0.0515**	**0.0515**		**0.0497**	**0.0497**	**0.0000**	**181.5991**	**181.5991**	**0.0308**	**0.0000**	**182.3701**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0220	6.5800e-003	1.0000e-004	3.3200e-003	1.4000e-004	3.4600e-003	9.6000e-004	1.3000e-004	1.0900e-003	0.0000	9.6163	9.6163	5.0000e-005	1.4500e-003	10.0489
Worker	7.7400e-003	5.0100e-003	0.0591	1.7000e-004	0.0200	1.0000e-004	0.0201	5.3100e-003	9.0000e-005	5.4000e-003	0.0000	15.9151	15.9151	4.8000e-004	4.6000e-004	16.0629
Total	**8.2800e-003**	**0.0270**	**0.0657**	**2.7000e-004**	**0.0233**	**2.4000e-004**	**0.0235**	**6.2700e-003**	**2.2000e-004**	**6.4900e-003**	**0.0000**	**25.5314**	**25.5314**	**5.3000e-004**	**1.9100e-003**	**26.1119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0840	1.7329	1.3479	2.2100e-003		0.0732	0.0732		0.0732	0.0732	0.0000	181.5989	181.5989	0.0308	0.0000	182.3698
Total	**0.0840**	**1.7329**	**1.3479**	**2.2100e-003**		**0.0732**	**0.0732**		**0.0732**	**0.0732**	**0.0000**	**181.5989**	**181.5989**	**0.0308**	**0.0000**	**182.3698**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0220	6.5800e-003	1.0000e-004	3.3200e-003	1.4000e-004	3.4600e-003	9.6000e-004	1.3000e-004	1.0900e-003	0.0000	9.6163	9.6163	5.0000e-005	1.4500e-003	10.0489
Worker	7.7400e-003	5.0100e-003	0.0591	1.7000e-004	0.0200	1.0000e-004	0.0201	5.3100e-003	9.0000e-005	5.4000e-003	0.0000	15.9151	15.9151	4.8000e-004	4.6000e-004	16.0629
Total	**8.2800e-003**	**0.0270**	**0.0657**	**2.7000e-004**	**0.0233**	**2.4000e-004**	**0.0235**	**6.2700e-003**	**2.2000e-004**	**6.4900e-003**	**0.0000**	**25.5314**	**25.5314**	**5.3000e-004**	**1.9100e-003**	**26.1119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2200e-003	0.0312	0.0440	7.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329
Paving	3.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.5200e-003**	**0.0312**	**0.0440**	**7.0000e-005**		**1.5400e-003**	**1.5400e-003**		**1.4200e-003**	**1.4200e-003**	**0.0000**	**5.8862**	**5.8862**	**1.8700e-003**	**0.0000**	**5.9329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.3000e-004	1.5400e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4138	0.4138	1.0000e-005	1.0000e-005	0.4176
Total	**2.0000e-004**	**1.3000e-004**	**1.5400e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4138**	**0.4138**	**1.0000e-005**	**1.0000e-005**	**0.4176**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.7500e-003	0.0587	0.0493	7.0000e-005		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329
Paving	3.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0500e-003**	**0.0587**	**0.0493**	**7.0000e-005**		**2.0600e-003**	**2.0600e-003**		**2.0600e-003**	**2.0600e-003**	**0.0000**	**5.8862**	**5.8862**	**1.8700e-003**	**0.0000**	**5.9329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.3000e-004	1.5400e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4138	0.4138	1.0000e-005	1.0000e-005	0.4176
Total	**2.0000e-004**	**1.3000e-004**	**1.5400e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4138**	**0.4138**	**1.0000e-005**	**1.0000e-005**	**0.4176**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.2472**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	5.9000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1592	0.1592	0.0000	0.0000	0.1606
Total	**8.0000e-005**	**5.0000e-005**	**5.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1592**	**0.1592**	**0.0000**	**0.0000**	**0.1606**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7000e-004	0.0118	9.1600e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.2468**	**0.0118**	**9.1600e-003**	**1.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	5.9000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1592	0.1592	0.0000	0.0000	0.1606
Total	**8.0000e-005**	**5.0000e-005**	**5.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1592**	**0.1592**	**0.0000**	**0.0000**	**0.1606**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0861	0.1457	0.8158	1.9500e-003	0.1925	1.6000e-003	0.1941	0.0515	1.5000e-003	0.0530	0.0000	182.9558	182.9558	9.5000e-003	9.9200e-003	186.1497
Unmitigated	0.0861	0.1457	0.8158	1.9500e-003	0.1925	1.6000e-003	0.1941	0.0515	1.5000e-003	0.0530	0.0000	182.9558	182.9558	9.5000e-003	9.9200e-003	186.1497

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	175.24	175.24	175.24	513,395	513,395
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	175.24	175.24	175.24	513,395	513,395

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.515888	0.053153	0.175761	0.156529	0.025865	0.006829	0.014141	0.022504	0.000707	0.000289	0.023863	0.001496	0.002975
City Park	0.515888	0.053153	0.175761	0.156529	0.025865	0.006829	0.014141	0.022504	0.000707	0.000289	0.023863	0.001496	0.002975
Parking Lot	0.515888	0.053153	0.175761	0.156529	0.025865	0.006829	0.014141	0.022504	0.000707	0.000289	0.023863	0.001496	0.002975

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.2745	10.2745	1.6600e-003	2.0000e-004	10.3761
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.2745	10.2745	1.6600e-003	2.0000e-004	10.3761
NaturalGas Mitigated	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9347	18.9347	3.6000e-004	3.5000e-004	19.0472
NaturalGas Unmitigated	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9347	18.9347	3.6000e-004	3.5000e-004	19.0472

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	354823	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9347	18.9347	3.6000e-004	3.5000e-004	19.0472
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.9100e-003**	**0.0164**	**6.9600e-003**	**1.0000e-004**		**1.3200e-003**	**1.3200e-003**		**1.3200e-003**	**1.3200e-003**	**0.0000**	**18.9347**	**18.9347**	**3.6000e-004**	**3.5000e-004**	**19.0472**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	354823	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9347	18.9347	3.6000e-004	3.5000e-004	19.0472
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.9100e-003**	**0.0164**	**6.9600e-003**	**1.0000e-004**		**1.3200e-003**	**1.3200e-003**		**1.3200e-003**	**1.3200e-003**	**0.0000**	**18.9347**	**18.9347**	**3.6000e-004**	**3.5000e-004**	**19.0472**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	107407	9.9377	1.6100e-003	1.9000e-004	10.0360
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3640	0.3368	5.0000e-005	1.0000e-005	0.3401
Total		**10.2745**	**1.6600e-003**	**2.0000e-004**	**10.3761**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	107407	9.9377	1.6100e-003	1.9000e-004	10.0360
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3640	0.3368	5.0000e-005	1.0000e-005	0.3401
Total		**10.2745**	**1.6600e-003**	**2.0000e-004**	**10.3761**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1338	0.0120	0.1974	7.0000e-005		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	11.5792	11.5792	5.2000e-004	2.1000e-004	11.6537
Unmitigated	0.1671	0.0169	0.4990	1.0600e-003		0.0511	0.0511		0.0511	0.0511	6.5896	11.5792	18.1689	0.0313	2.1000e-004	19.0135

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0344	0.0147	0.3058	1.0500e-003		0.0500	0.0500		0.0500	0.0500	6.5896	11.2634	17.8530	0.0310	2.1000e-004	18.6901
Landscaping	5.8200e-003	2.2300e-003	0.1932	1.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	0.3158	0.3158	3.0000e-004	0.0000	0.3234
Total	**0.1671**	**0.0169**	**0.4990**	**1.0600e-003**		**0.0511**	**0.0511**		**0.0511**	**0.0511**	**6.5896**	**11.5792**	**18.1689**	**0.0313**	**2.1000e-004**	**19.0135**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.1400e-003	9.7300e-003	4.1400e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.2634	11.2634	2.2000e-004	2.1000e-004	11.3303
Landscaping	5.8200e-003	2.2300e-003	0.1932	1.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	0.3158	0.3158	3.0000e-004	0.0000	0.3234
Total	**0.1338**	**0.0120**	**0.1974**	**7.0000e-005**		**1.8600e-003**	**1.8600e-003**		**1.8600e-003**	**1.8600e-003**	**0.0000**	**11.5792**	**11.5792**	**5.2000e-004**	**2.1000e-004**	**11.6537**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.7465	0.0554	1.3300e-003	3.5268
Unmitigated	1.7700	0.0554	1.3300e-003	3.5505

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.694 / 1.06796	1.7314	0.0554	1.3300e-003	3.5116
City Park	0 / 0.119148	0.0386	1.0000e-005	0.0000	0.0390
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.7700**	**0.0554**	**1.3300e-003**	**3.5505**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.694 / 1.00281	1.7103	0.0554	1.3300e-003	3.4903
City Park	0 / 0.11188	0.0362	1.0000e-005	0.0000	0.0366
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.7465**	**0.0554**	**1.3300e-003**	**3.5268**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.4298	0.1436	0.0000	6.0197
Unmitigated	2.4298	0.1436	0.0000	6.0197

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.96	2.4278	0.1435	0.0000	6.0147
City Park	0.01	2.0300e-003	1.2000e-004	0.0000	5.0300e-003
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.4298**	**0.1436**	**0.0000**	**6.0197**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.96	2.4278	0.1435	0.0000	6.0147
City Park	0.01	2.0300e-003	1.2000e-004	0.0000	5.0300e-003
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.4298**	**0.1436**	**0.0000**	**6.0197**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

DeWolf Apartments Project - Mitigated - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

DeWolf Apartments Project - Mitigated

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	26.00	Space	0.23	10,400.00	0
City Park	0.10	Acre	0.10	4,356.00	0
Apartments Low Rise	26.00	Dwelling Unit	1.63	26,000.00	74

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total project site is 1.63 acres

Construction Phase - Default schedule

Demolition - Demolition of a single-family residnece

Grading - Balanced site, no soil export or import

Vehicle Trips - TBD

Construction Off-road Equipment Mitigation - construction equipment tier

Area Mitigation -

Energy Mitigation -

Water Mitigation - Project would implement low mainatance landscape features

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWoodstoves	NumberCatalytic	1.63	0.00
tblWoodstoves	NumberNoncatalytic	1.63	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.4303	1.4213	1.5445	2.8800e-003	0.0466	0.0621	0.1087	0.0168	0.0596	0.0764	0.0000	242.3175	242.3175	0.0404	1.9800e-003	243.9179
Maximum	**0.4303**	**1.4213**	**1.5445**	**2.8800e-003**	**0.0466**	**0.0621**	**0.1087**	**0.0168**	**0.0596**	**0.0764**	**0.0000**	**242.3175**	**242.3175**	**0.0404**	**1.9800e-003**	**243.9179**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2890	0.4186	1.6202	2.8800e-003	0.0349	3.8800e-003	0.0388	0.0113	3.8600e-003	0.0152	0.0000	242.3173	242.3173	0.0404	1.9800e-003	243.9177
Maximum	**0.2890**	**0.4186**	**1.6202**	**2.8800e-003**	**0.0349**	**3.8800e-003**	**0.0388**	**0.0113**	**3.8600e-003**	**0.0152**	**0.0000**	**242.3173**	**242.3173**	**0.0404**	**1.9800e-003**	**243.9177**

DeWolf Apartments Project - Mitigated - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**32.83**	**70.55**	**-4.90**	**0.00**	**25.11**	**93.75**	**64.30**	**32.68**	**93.52**	**80.14**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-2-2023**	**4-1-2023**	0.4634	0.1040
2	**4-2-2023**	**7-1-2023**	0.4415	0.1416
3	**7-2-2023**	**9-30-2023**	0.4415	0.1416
		Highest	0.4634	0.1416

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1338	0.0120	0.1974	7.0000e-005		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	11.5792	11.5792	5.2000e-004	2.1000e-004	11.6537
Energy	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	33.9242	33.9242	2.7900e-003	6.4000e-004	34.1849
Mobile	0.0932	0.1576	0.8826	2.1100e-003	0.2083	1.7300e-003	0.2100	0.0557	1.6200e-003	0.0573	0.0000	197.9352	197.9352	0.0103	0.0107	201.3907
Waste						0.0000	0.0000		0.0000	0.0000	2.4298	0.0000	2.4298	0.1436	0.0000	6.0197
Water						0.0000	0.0000		0.0000	0.0000	0.5374	1.2325	1.7700	0.0554	1.3300e-003	3.5505
Total	**0.2289**	**0.1859**	**1.0869**	**2.2800e-003**	**0.2083**	**4.9100e-003**	**0.2132**	**0.0557**	**4.8000e-003**	**0.0605**	**2.9672**	**244.6710**	**247.6383**	**0.2126**	**0.0129**	**256.7995**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1338	0.0120	0.1974	7.0000e-005		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	11.5792	11.5792	5.2000e-004	2.1000e-004	11.6537
Energy	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	33.9242	33.9242	2.7900e-003	6.4000e-004	34.1849
Mobile	0.0932	0.1576	0.8826	2.1100e-003	0.2083	1.7300e-003	0.2100	0.0557	1.6200e-003	0.0573	0.0000	197.9352	197.9352	0.0103	0.0107	201.3907
Waste						0.0000	0.0000		0.0000	0.0000	2.4298	0.0000	2.4298	0.1436	0.0000	6.0197
Water						0.0000	0.0000		0.0000	0.0000	0.5374	1.2091	1.7465	0.0554	1.3300e-003	3.5268
Total	**0.2289**	**0.1859**	**1.0869**	**2.2800e-003**	**0.2083**	**4.9100e-003**	**0.2132**	**0.0557**	**4.8000e-003**	**0.0605**	**2.9672**	**244.6476**	**247.6148**	**0.2126**	**0.0129**	**256.7759**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.01**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2023	1/27/2023	5	20	
2	Site Preparation	Site Preparation	1/28/2023	1/31/2023	5	2	
3	Grading	Grading	2/1/2023	2/6/2023	5	4	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	2/7/2023	11/13/2023	5	200	
5	Paving	Paving	11/14/2023	11/27/2023	5	10	
6	Architectural Coating	Architectural Coating	11/28/2023	12/11/2023	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.23

Residential Indoor: 52,650; Residential Outdoor: 17,550; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 624 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	25.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.6000e-004	0.0000	8.6000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1432	0.1346	2.4000e-004		6.7700e-003	6.7700e-003		6.3300e-003	6.3300e-003	0.0000	21.0866	21.0866	5.3500e-003	0.0000	21.2202
Total	**0.0147**	**0.1432**	**0.1346**	**2.4000e-004**	**8.6000e-004**	**6.7700e-003**	**7.6300e-003**	**1.3000e-004**	**6.3300e-003**	**6.4600e-003**	**0.0000**	**21.0866**	**21.0866**	**5.3500e-003**	**0.0000**	**21.2202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.0000e-004	1.1000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2266	0.2266	0.0000	4.0000e-005	0.2373
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.6000e-004	3.0700e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0400e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.8276	0.8276	2.0000e-005	2.0000e-005	0.8353
Total	**4.1000e-004**	**7.6000e-004**	**3.1800e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1100e-003**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**1.0542**	**1.0542**	**2.0000e-005**	**6.0000e-005**	**1.0725**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9000e-004	0.0000	3.9000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8100e-003	0.0122	0.1472	2.4000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	21.0865	21.0865	5.3500e-003	0.0000	21.2202
Total	**2.8100e-003**	**0.0122**	**0.1472**	**2.4000e-004**	**3.9000e-004**	**3.7000e-004**	**7.6000e-004**	**6.0000e-005**	**3.7000e-004**	**4.3000e-004**	**0.0000**	**21.0865**	**21.0865**	**5.3500e-003**	**0.0000**	**21.2202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.0000e-004	1.1000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2266	0.2266	0.0000	4.0000e-005	0.2373
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.6000e-004	3.0700e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0400e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.8276	0.8276	2.0000e-005	2.0000e-005	0.8353
Total	**4.1000e-004**	**7.6000e-004**	**3.1800e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1100e-003**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**0.0000**	**1.0542**	**1.0542**	**2.0000e-005**	**6.0000e-005**	**1.0725**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0124	6.6400e-003	2.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**1.1300e-003**	**0.0124**	**6.6400e-003**	**2.0000e-005**	**6.2700e-003**	**5.1000e-004**	**6.7800e-003**	**3.0000e-003**	**4.7000e-004**	**3.4700e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0509	0.0509	0.0000	0.0000	0.0514
Total	**2.0000e-005**	**2.0000e-005**	**1.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0509**	**0.0509**	**0.0000**	**0.0000**	**0.0514**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8200e-003	0.0000	2.8200e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	9.1000e-004	8.6700e-003	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**2.1000e-004**	**9.1000e-004**	**8.6700e-003**	**2.0000e-005**	**2.8200e-003**	**3.0000e-005**	**2.8500e-003**	**1.3500e-003**	**3.0000e-005**	**1.3800e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0509	0.0509	0.0000	0.0000	0.0514
Total	**2.0000e-005**	**2.0000e-005**	**1.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0509**	**0.0509**	**0.0000**	**0.0000**	**0.0514**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0289	0.0174	4.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**2.6700e-003**	**0.0289**	**0.0174**	**4.0000e-005**	**0.0142**	**1.2100e-003**	**0.0154**	**6.8500e-003**	**1.1100e-003**	**7.9600e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1273	0.1273	0.0000	0.0000	0.1285
Total	**6.0000e-005**	**4.0000e-005**	**4.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1273**	**0.1273**	**0.0000**	**0.0000**	**0.1285**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0000e-004	2.1900e-003	0.0218	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**5.0000e-004**	**2.1900e-003**	**0.0218**	**4.0000e-005**	**6.3700e-003**	**7.0000e-005**	**6.4400e-003**	**3.0800e-003**	**7.0000e-005**	**3.1500e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1273	0.1273	0.0000	0.0000	0.1285
Total	**6.0000e-005**	**4.0000e-005**	**4.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1273**	**0.1273**	**0.0000**	**0.0000**	**0.1285**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1523	1.1710	1.2611	2.2100e-003		0.0515	0.0515		0.0497	0.0497	0.0000	181.5991	181.5991	0.0308	0.0000	182.3701
Total	**0.1523**	**1.1710**	**1.2611**	**2.2100e-003**		**0.0515**	**0.0515**		**0.0497**	**0.0497**	**0.0000**	**181.5991**	**181.5991**	**0.0308**	**0.0000**	**182.3701**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0220	6.5800e-003	1.0000e-004	3.3200e-003	1.4000e-004	3.4600e-003	9.6000e-004	1.3000e-004	1.0900e-003	0.0000	9.6163	9.6163	5.0000e-005	1.4500e-003	10.0489
Worker	7.7400e-003	5.0100e-003	0.0591	1.7000e-004	0.0200	1.0000e-004	0.0201	5.3100e-003	9.0000e-005	5.4000e-003	0.0000	15.9151	15.9151	4.8000e-004	4.6000e-004	16.0629
Total	**8.2800e-003**	**0.0270**	**0.0657**	**2.7000e-004**	**0.0233**	**2.4000e-004**	**0.0235**	**6.2700e-003**	**2.2000e-004**	**6.4900e-003**	**0.0000**	**25.5314**	**25.5314**	**5.3000e-004**	**1.9100e-003**	**26.1119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0293	0.3712	1.3124	2.2100e-003		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	181.5989	181.5989	0.0308	0.0000	182.3698
Total	**0.0293**	**0.3712**	**1.3124**	**2.2100e-003**		**3.0300e-003**	**3.0300e-003**		**3.0300e-003**	**3.0300e-003**	**0.0000**	**181.5989**	**181.5989**	**0.0308**	**0.0000**	**182.3698**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0220	6.5800e-003	1.0000e-004	3.3200e-003	1.4000e-004	3.4600e-003	9.6000e-004	1.3000e-004	1.0900e-003	0.0000	9.6163	9.6163	5.0000e-005	1.4500e-003	10.0489
Worker	7.7400e-003	5.0100e-003	0.0591	1.7000e-004	0.0200	1.0000e-004	0.0201	5.3100e-003	9.0000e-005	5.4000e-003	0.0000	15.9151	15.9151	4.8000e-004	4.6000e-004	16.0629
Total	**8.2800e-003**	**0.0270**	**0.0657**	**2.7000e-004**	**0.0233**	**2.4000e-004**	**0.0235**	**6.2700e-003**	**2.2000e-004**	**6.4900e-003**	**0.0000**	**25.5314**	**25.5314**	**5.3000e-004**	**1.9100e-003**	**26.1119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2200e-003	0.0312	0.0440	7.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.2200e-003**	**0.0312**	**0.0440**	**7.0000e-005**		**1.5400e-003**	**1.5400e-003**		**1.4200e-003**	**1.4200e-003**	**0.0000**	**5.8862**	**5.8862**	**1.8700e-003**	**0.0000**	**5.9329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.3000e-004	1.5400e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4138	0.4138	1.0000e-005	1.0000e-005	0.4176
Total	**2.0000e-004**	**1.3000e-004**	**1.5400e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4138**	**0.4138**	**1.0000e-005**	**1.0000e-005**	**0.4176**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0000e-004	3.4600e-003	0.0493	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0000e-004**	**3.4600e-003**	**0.0493**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.8862**	**5.8862**	**1.8700e-003**	**0.0000**	**5.9329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.3000e-004	1.5400e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4138	0.4138	1.0000e-005	1.0000e-005	0.4176
Total	**2.0000e-004**	**1.3000e-004**	**1.5400e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4138**	**0.4138**	**1.0000e-005**	**1.0000e-005**	**0.4176**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.2472**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	5.9000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1592	0.1592	0.0000	0.0000	0.1606
Total	**8.0000e-005**	**5.0000e-005**	**5.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1592**	**0.1592**	**0.0000**	**0.0000**	**0.1606**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.2464**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	5.0000e-005	5.9000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1592	0.1592	0.0000	0.0000	0.1606
Total	**8.0000e-005**	**5.0000e-005**	**5.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1592**	**0.1592**	**0.0000**	**0.0000**	**0.1606**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0932	0.1576	0.8826	2.1100e-003	0.2083	1.7300e-003	0.2100	0.0557	1.6200e-003	0.0573	0.0000	197.9352	197.9352	0.0103	0.0107	201.3907
Unmitigated	0.0932	0.1576	0.8826	2.1100e-003	0.2083	1.7300e-003	0.2100	0.0557	1.6200e-003	0.0573	0.0000	197.9352	197.9352	0.0103	0.0107	201.3907

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	190.32	211.64	163.28	555,181	555,181
City Park	0.08	0.20	0.22	246	246
Enclosed Parking Structure	0.00	0.00	0.00		
Total	190.40	211.84	163.50	555,426	555,426

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.515888	0.053153	0.175761	0.156529	0.025865	0.006829	0.014141	0.022504	0.000707	0.000289	0.023863	0.001496	0.002975
City Park	0.515888	0.053153	0.175761	0.156529	0.025865	0.006829	0.014141	0.022504	0.000707	0.000289	0.023863	0.001496	0.002975
Enclosed Parking Structure	0.515888	0.053153	0.175761	0.156529	0.025865	0.006829	0.014141	0.022504	0.000707	0.000289	0.023863	0.001496	0.002975

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.9895	14.9895	2.4300e-003	2.9000e-004	15.1377
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.9895	14.9895	2.4300e-003	2.9000e-004	15.1377
NaturalGas Mitigated	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9347	18.9347	3.6000e-004	3.5000e-004	19.0472
NaturalGas Unmitigated	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9347	18.9347	3.6000e-004	3.5000e-004	19.0472

DeWolf Apartments Project - Mitigated - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	354823	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9347	18.9347	3.6000e-004	3.5000e-004	19.0472
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.9100e-003**	**0.0164**	**6.9600e-003**	**1.0000e-004**		**1.3200e-003**	**1.3200e-003**		**1.3200e-003**	**1.3200e-003**	**0.0000**	**18.9347**	**18.9347**	**3.6000e-004**	**3.5000e-004**	**19.0472**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	354823	1.9100e-003	0.0164	6.9600e-003	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9347	18.9347	3.6000e-004	3.5000e-004	19.0472
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.9100e-003**	**0.0164**	**6.9600e-003**	**1.0000e-004**		**1.3200e-003**	**1.3200e-003**		**1.3200e-003**	**1.3200e-003**	**0.0000**	**18.9347**	**18.9347**	**3.6000e-004**	**3.5000e-004**	**19.0472**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	107407	9.9377	1.6100e-003	1.9000e-004	10.0360
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	54600	5.0518	8.2000e-004	1.0000e-004	5.1018
Total		**14.9895**	**2.4300e-003**	**2.9000e-004**	**15.1377**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	107407	9.9377	1.6100e-003	1.9000e-004	10.0360
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	54600	5.0518	8.2000e-004	1.0000e-004	5.1018
Total		**14.9895**	**2.4300e-003**	**2.9000e-004**	**15.1377**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1338	0.0120	0.1974	7.0000e-005		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	11.5792	11.5792	5.2000e-004	2.1000e-004	11.6537
Unmitigated	0.1338	0.0120	0.1974	7.0000e-005		1.8600e-003	1.8600e-003		1.8600e-003	1.8600e-003	0.0000	11.5792	11.5792	5.2000e-004	2.1000e-004	11.6537

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.1400e-003	9.7300e-003	4.1400e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.2634	11.2634	2.2000e-004	2.1000e-004	11.3303
Landscaping	5.8200e-003	2.2300e-003	0.1932	1.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	0.3158	0.3158	3.0000e-004	0.0000	0.3234
Total	**0.1338**	**0.0120**	**0.1974**	**7.0000e-005**		**1.8600e-003**	**1.8600e-003**		**1.8600e-003**	**1.8600e-003**	**0.0000**	**11.5792**	**11.5792**	**5.2000e-004**	**2.1000e-004**	**11.6537**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0246					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1023					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.1400e-003	9.7300e-003	4.1400e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.2634	11.2634	2.2000e-004	2.1000e-004	11.3303
Landscaping	5.8200e-003	2.2300e-003	0.1932	1.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	0.3158	0.3158	3.0000e-004	0.0000	0.3234
Total	**0.1338**	**0.0120**	**0.1974**	**7.0000e-005**		**1.8600e-003**	**1.8600e-003**		**1.8600e-003**	**1.8600e-003**	**0.0000**	**11.5792**	**11.5792**	**5.2000e-004**	**2.1000e-004**	**11.6537**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.7465	0.0554	1.3300e-003	3.5268
Unmitigated	1.7700	0.0554	1.3300e-003	3.5505

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.694 / 1.06796	1.7314	0.0554	1.3300e-003	3.5116
City Park	0 / 0.119148	0.0386	1.0000e-005	0.0000	0.0390
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.7700**	**0.0554**	**1.3300e-003**	**3.5505**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.694 / 1.00281	1.7103	0.0554	1.3300e-003	3.4903
City Park	0 / 0.11188	0.0362	1.0000e-005	0.0000	0.0366
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.7465**	**0.0554**	**1.3300e-003**	**3.5268**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.4298	0.1436	0.0000	6.0197
Unmitigated	2.4298	0.1436	0.0000	6.0197

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.96	2.4278	0.1435	0.0000	6.0147
City Park	0.01	2.0300e-003	1.2000e-004	0.0000	5.0300e-003
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**2.4298**	**0.1436**	**0.0000**	**6.0197**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.96	2.4278	0.1435	0.0000	6.0147
City Park	0.01	2.0300e-003	1.2000e-004	0.0000	5.0300e-003
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**2.4298**	**0.1436**	**0.0000**	**6.0197**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

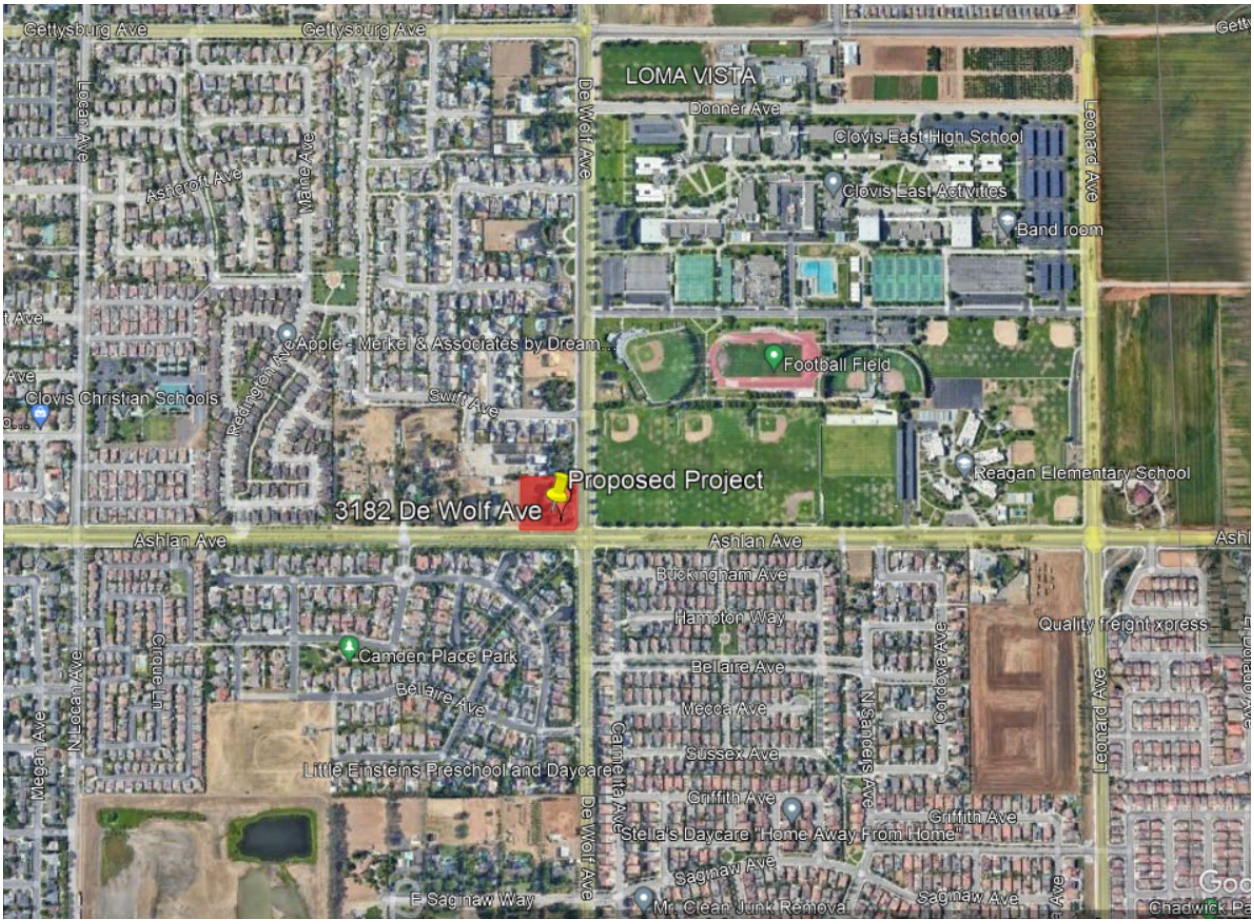
EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

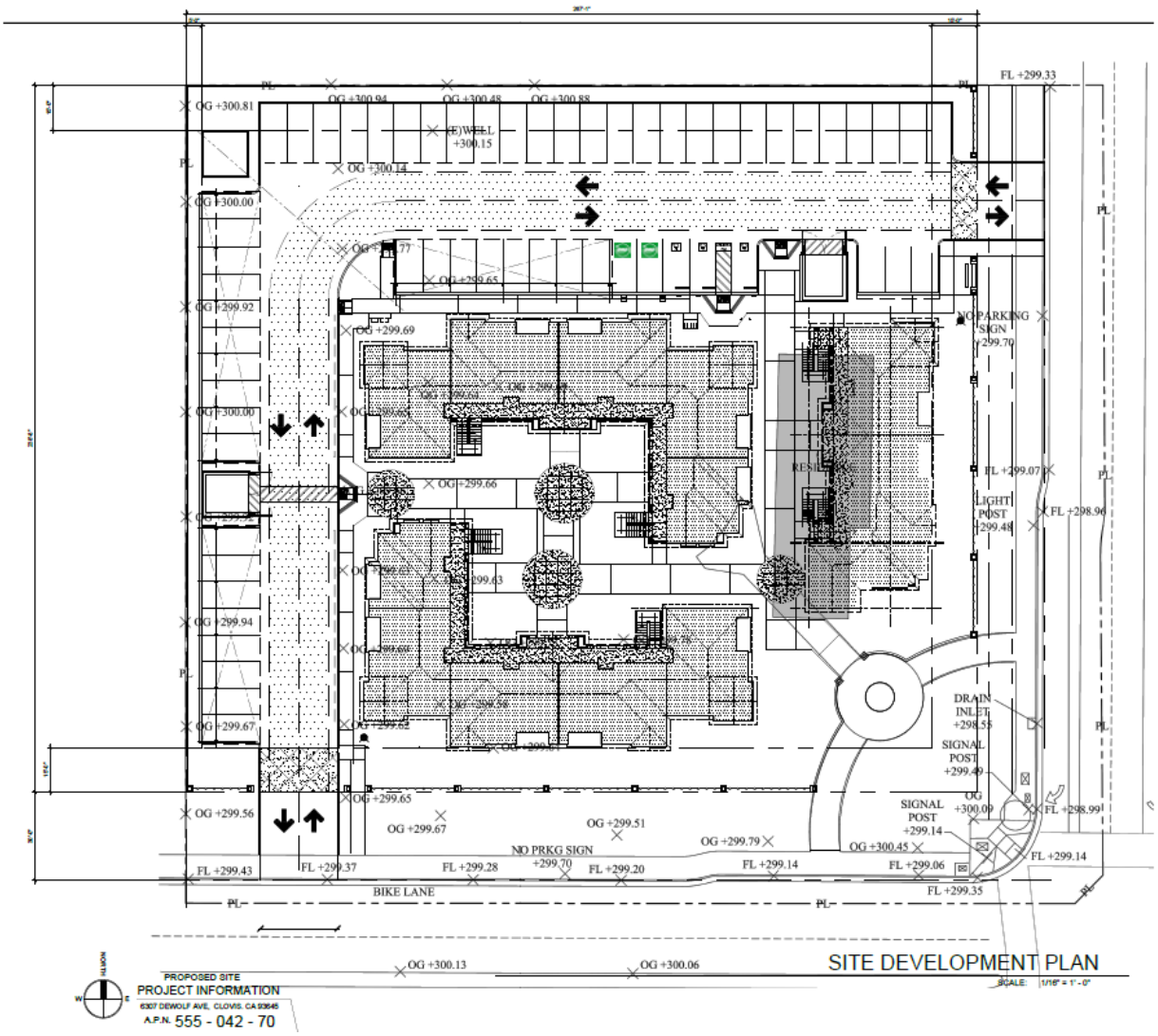
ATTACHMENT B

HRA MODEL SNAPSHOTS

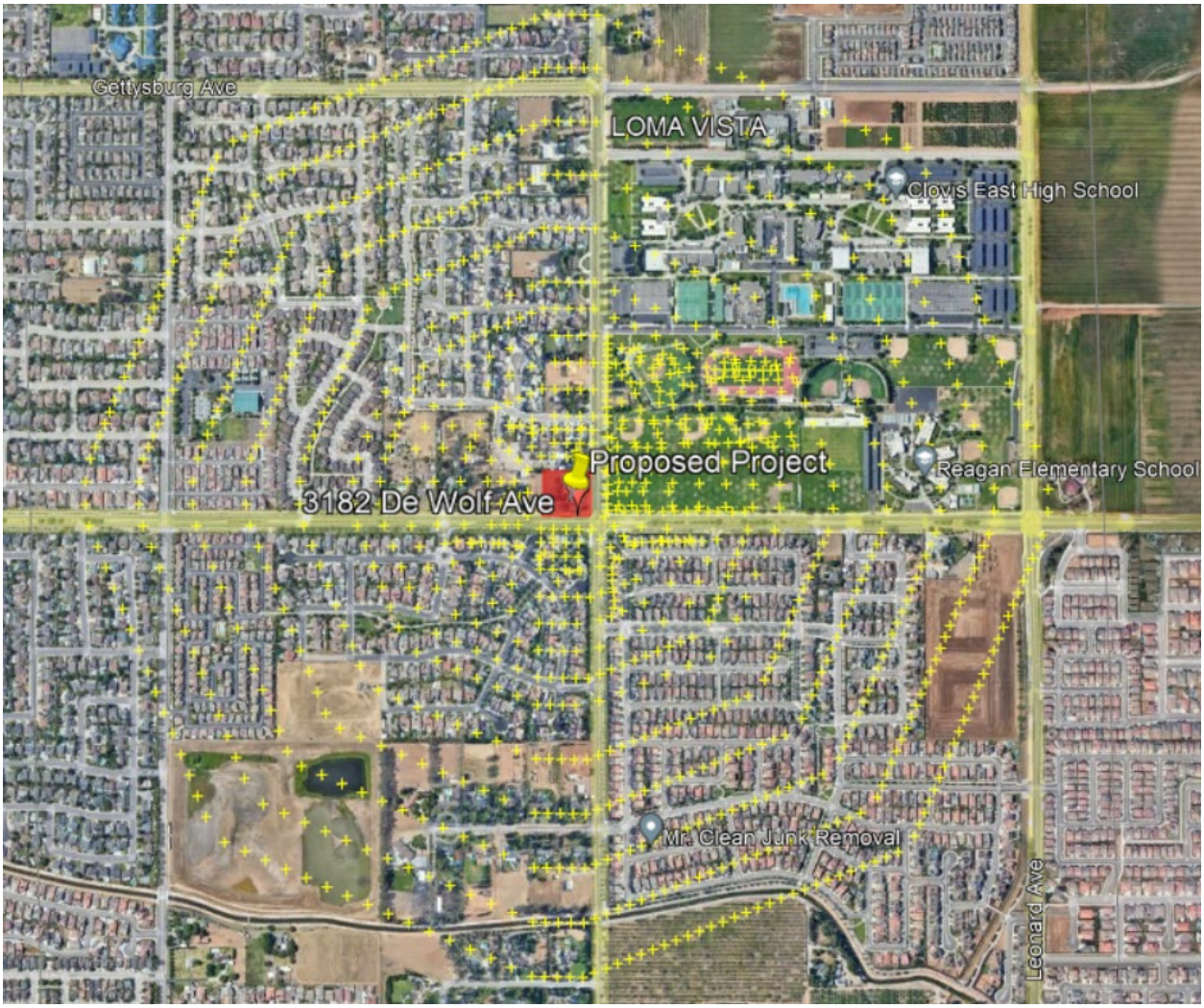
Project Location



Site Plan

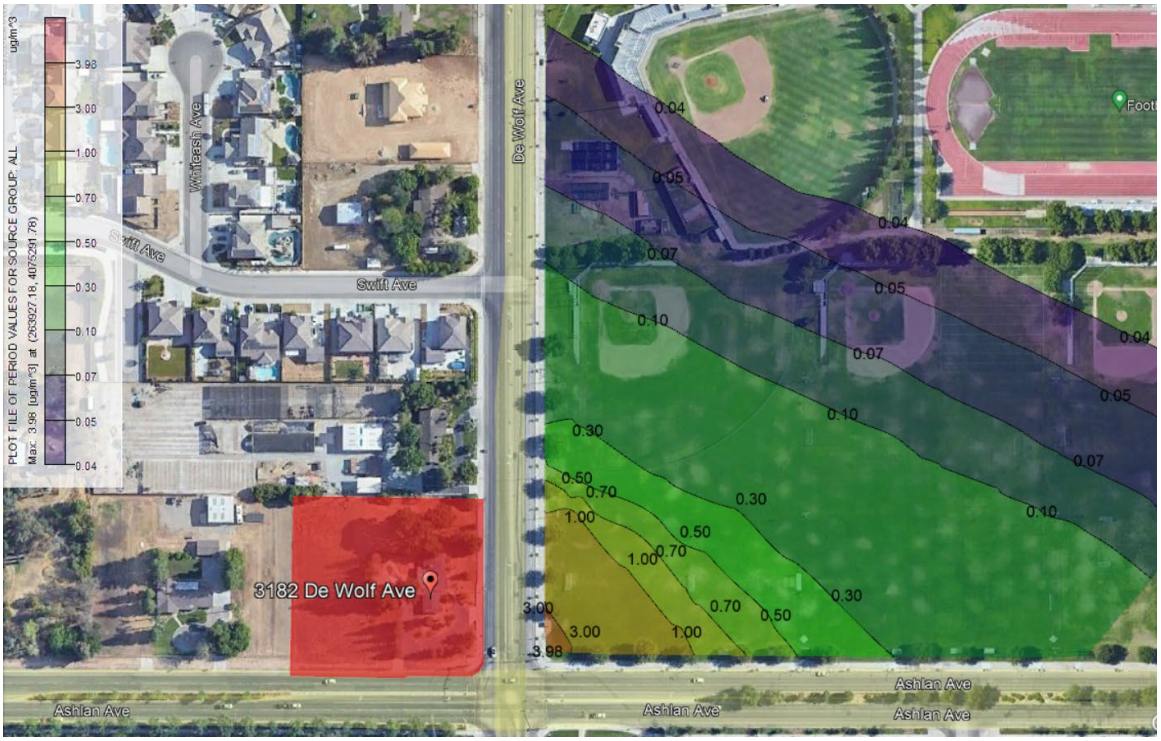

FL +299.33
OG +300.81
OG +300.94
OG +300.48
OG +300.88
(E)WELL
+300.15
OG +300.14
OG +300.00
OG +299.77
OG +299.65
OG +299.92
OG +299.69
NO PARKING
SIGN
+299.70
OG +300.00
OG +299.66
FL +299.07
LIGHT
POST
+299.48
FL +298.96
OG +299.63
OG +299.94
OG +299.67
DRAIN
INLET
+298.55
SIGNAL
POST
+299.49
OG +299.65
OG +299.56
OG +299.67
OG +299.51
OG +299.79
SIGNAL
POST
+299.14
OG
+300.09
FL +298.99
NO PRKG SIGN
+299.70
OG +300.45
FL +299.14
FL +299.43
FL +299.37
FL +299.28
FL +299.20
FL +299.14
FL +299.06
FL +299.35
BIKE LANE
PL
OG +300.13
OG +300.06
PROPOSED SITE
PROJECT INFORMATION
6307 DEWOLF AVE, CLOVIS, CA 93646
A.P.N. 555 - 042 - 70
SITE DEVELOPMENT PLAN
SCALE: 1/16" = 1'-0"

Receptor Grid



Construction Cancer Risk – Residential Receptors

Construction Cancer Risk – School Receptors



Control Pathway

Dispersion Options

Titles

C:\Users\Jessica.Coria\OneDrive - LSA Associates\Desktop\DeWolfAptsH

Dispersion Options

☑ Regulatory Default ☐ Non-Default Options

Dispersion Coefficient

Urban

Population:
Name (Optional):
Roughness Length:

Output Type

☑ Concentration
☐ Total Deposition (Dry & Wet)
☐ Dry Deposition
☐ Wet Deposition

Plume Depletion

☐ Dry Removal
☐ Wet Removal

Output Warnings

☐ No Output Warnings
☐ Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

PM2.5

Averaging Time Options

Hours: ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 6 ☐ 8 ☐ 12 ☐ 24

☐ Month ☑ Period ☐ Annual

Exponential Decay

Half-life of 4 hrs will be used

Terrain Height Options

☐ Flat ☑ Elevated

SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

☐ Yes ☑ No

Default Height = 0.00 m

Control Pathway

Optional Files

Re-Start File	Init File	Multi-Year Analyses	Event Input File	Error Listing File
☐	☐	☐	☐	■

Detailed Error Listing File

Filename: DeWolfAptsHRA.err

Meteorology Pathway

Met Input Data

Surface Met Data

Filename: Fresno 93193\Fresno_2013-2017.SFC
Format Type: Default AERMET format

Profile Met Data

Filename: Fresno 93193\Fresno_2013-2017.PFL
Format Type: Default AERMET format

Wind Speed

☐ Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 101.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2013			FRESNO/AIR TERMINAL
Upper Air		2013			OAKLAND/WSO AP

Data Period

Data Period to Process

Start Date: 1/1/2013 Start Hour: 1 End Date: 12/31/2017 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Source Pathway - Source Inputs

Polygon Area Sources

Source Type: AREA POLY

Source: PAREA1

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
111.97	3.05	0.00013		10	263809.80	4075368.87
		0.00013			263895.23	4075365.05
		0.00013			263899.05	4075365.05
		0.00013			263896.85	4075287.70
		0.00013			263894.79	4075284.47
		0.00013			263891.56	4075282.27
		0.00013			263885.25	4075282.41
		0.00013			263860.59	4075283.29
		0.00013			263859.71	4075282.41
		0.00013			263805.69	4075284.76

General AERMOD Input Parameters			
Project Boundary			
	Based on site plan		
Project Elevation Data			
	Source	**Lakes Environmental**	
	Link	http://www.webgis.com/terraindata.html	
	Evel Data Descr.	**7.5 min DEM not available**	
Project Receptor Grid			
	Telescoping Grid	Spacing (m)	Distance (m)
	Grid 1	**20**	**100**
	Grid 2	**50**	**250**
	Grid 3	**100**	**500**
	Grid 4	**250**	**800**
	Comments	**Receptors on roads or parking lot areas have been removed.**	
Meteorological Dataset			
	Location	**Fresno Air Terminal**	
	Provided By	**SJVAPCD**	
	Years	**2013-2017**	
	Elevation (m)	**101**	
	Link	https://www.valleyair.org/busind/pto/tox_resources/airqualitymonitoring.htm#met_data	
Construction Modeling Specific Inputs			
AERMOD Input Options			
	Regulatory Options	**Default**	
	Pollutant Type	**Other**	
	Averaging Period	**Period & Hourly**	
	Dispersion Coefficient	**Urban**	
	County	**Fresno**	
	Urban Grouping / Pop	**Y**	**124,556**
	# of Sensitive Receptors	**1,224**	
Construction Area Parameters			
	Source Type	**Polygon Area**	
	Project Area (m^2)	**7,539.10**	
	Ht. of Source (m)	**3.048**	

General HARP Input Parameters		
Construction		
School Receptors		
Sensitive Scenario Parameters		
	Starting Age	**3rd Trimester**
	Age Range	**3rd Trimester - 1 Year**
	Receptor Type	**Individual Resident**
	Assessment Type	**Cancer / Chronic / Acute**
	Exposure Duration	**1**
	Intake Rate	**RMP using the Derived Merthod**
	Comments	
Sensitive Pathway Parameters		
	Pathways	**SCAQMD Manadatory minimum Pathways**
	Deposition Rate	**0.02**
	TAH < 16 yrs	**N**
	TAH ≥ 16 yrs	**N**

	Zone	**11**	Process Coordinates									
	Datum	**WGS 1984**										
	KML File Name	**ESL2201.56 Project MEI**										
										Sensitive		
Description	**Receptor Type**	**Model Type**	**UTM X**	**UTM Y**	**Latitude**	**Longitude**			Unmitigated	T2	T2L3	T4	**Row**
Construction	Sensitive	Cancer Risk	263764.94	4075321.74	34.09837241	-117.4714105	**Col**		2	3	4	5	4
Construction	Sensitive	Chronic HI	263764.94	4075321.74	34.09837241	-117.4714105			2	3	4	5	7
Construction	Sensitive	Acute HI	0	0					2	3	4	5	10
Construction	Sensitive	PM 2.5	263764.94	4075321.74	34.09837241	-117.4714105			2	3	4	5	13
Construction	School	Cancer Risk	263927.18	4075291.78					12	13	14	15	4
Construction	School	Chronic HI	263936.88	4075615.03					12	13	14	15	7
Construction	School	Acute HI	0	0					12	13	14	15	10
Construction	School	PM 2.5	263927.18	4075291.78					12	13	14	15	13
Construction	Worker	Cancer Risk	0.00	0.00	34.09845962	-117.4687945			7	8	9	10	4
Construction	Worker	Chronic HI	0.00	0.00	34.09845962	-117.4687945			7	8	9	10	7
Construction	Worker	Acute HI	0	0					7	8	9	10	10
Construction	Worker	PM 2.5	0.00	0.00	34.09845962	-117.4687945			7	8	9	10	13
Operational	Sensitive	Cancer Risk 30 yr	0	0	34.10545389	-117.4711209			3	4	5	2	18
Operational	Sensitive	Cancer Risk 70 yr	0	0	34.10545389	-117.4711209			3	4	5	2	20
Operational	Sensitive	Chronic HI	0	0	34.10545389	-117.4711209			3	4	5	2	22
Operational	Sensitive	Acute HI	0	0	34.10416908	-117.4713116			3	4	5	2	24
Operational	Sensitive	PM 2.5	0	0	34.10545389	-117.4711209			3	4	5	2	26
Operational	Worker	Cancer Risk 25 yr	0	0	34.09847446	-117.4700342			8	9	10	7	18
Operational	Worker	Chronic HI	0	0	34.09847446	-117.4700342			8	9	10	7	20
Operational	Worker	Acute HI	0	0	34.0990999	-117.4688086			8	9	10	7	22
Operational	Worker	PM 2.5	0	0	34.09847446	-117.4700342			8	9	10	7	24
Operational	School	Cancer Risk 9 yr	0	0					13	14	15	12	18
Operational	School	Chronic HI	0	0					13	14	15	12	20
Operational	School	Acute HI	0	0					13	14	15	12	22
Operational	School	PM 2.5	0	0					13	14	15	12	24

Construction **MEI (Sensitive) - Cancer Risk (in a Million)** **HARP Rec #: 1** **X: 263764.94 Y: 4075321.74**	
Unmitigated	Mitigated T4
39.26	2.45
MEI (Sensitive) - Chronic Hazard Index **HARP Rec #: 1** **X: 263764.94 Y: 4075321.74**	
Unmitigated	Mitigated T4
4.41E-02	2.76E-03
MEI (Sensitive) - Acute Hazard Index **HARP Rec #: NA** **X: NA Y: NA**	
Unmitigated	Mitigated T4
0.00E+00	0.00E+00
MEI (Sensitive) - PM 2.5 **HARP Rec #: 1** **X: 263764.94 Y: 4075321.74**	
Unmitigated	Mitigated T4
0.221	0.014

Construction **MEI (School) - Cancer Risk (in a Million)** **HARP Rec #: 21** **X: 263927.18 Y: 4075291.78**	
Unmitigated	Mitigated T4
63.78	3.99
MEI (School) - Chronic Hazard Index **HARP Rec #: 1** **X: 263936.88 Y: 4075615.03**	
Unmitigated	Mitigated T4
7.17E-02	4.48E-03
MEI (School) - Acute Hazard Index **HARP Rec #: NA** **X: NA Y: NA**	
Unmitigated	Mitigated T4
0.00E+00	0.00E+00
MEI (School) - PM 2.5 **HARP Rec #: 21** **X: 263927.18 Y: 4075291.78**	
Unmitigated	Mitigated T4
0.3586	0.0224

BIOLOGICAL RESOURCES ASSESSMENT

DEWOLF APARTMENTS PROJECT

CITY OF CLOVIS, CALIFORNIA

LSA

August 2022

Appendix B

BIOLOGICAL RESOURCES ASSESSMENT

DEWOLF APARTMENTS PROJECT

CITY OF CLOVIS, CALIFORNIA

Prepared for:

Peter Sumal
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LSA Project No. HPT2201

LSA

August 2022

EXECUTIVE SUMMARY

LSA Associates, Inc. (LSA) prepared this Biological Resources Assessment (BRA) for the proposed DeWolf Apartments Project (project) located at 3182 DeWolf Avenue, northwest of the intersection of DeWolf Avenue and Ashlan Avenue, in the City of Clovis, Fresno County, California. The project consists of the construction of 26 multi-family apartment units on approximately 1.62-acres. The eastern portion of the project site is developed with a single-family residential home and the remaining areas are undeveloped. The site is located on the margin of urban portions of the City of Clovis with no connection to undisturbed or natural lands.

In May 2022, LSA biologists conducted a literature review and records search to identify the existence and potential for occurrence of sensitive or special-status plant and animal species in the vicinity of the project site. Federal and state lists of sensitive species were also examined. Current electronic database records reviewed included the California Natural Diversity Database, California Native Plant Society's Electronic Inventory of Rare and Endangered Vascular Plants, and United States Fish and Wildlife Service's National Wetlands Inventory. Historic and current aerial imagery, existing environmental reports for developments in the project vicinity, regional habitat conservation plans, and local land use policies related to biological resources were also reviewed. A field survey covering the project site was conducted on May 5, 2022.

The project site is strictly upland in nature with well-drained soils and vegetation consisting of ruderal vegetation with patches of mixed herbaceous non-native grasses/invasive species and bare ground in several areas. Ongoing soil disturbance and the resulting competitive exclusion by invasive, nonnative plants limit the potential for native flora to occur on the project site. No native or special-status vegetation communities exist in the project site or surrounding parcels. No special-status plant species were observed during the field survey and none are expected to occur due to historical and ongoing anthropogenic disturbances.

Habitat in the project site is considered low quality with respect to most of the regionally occurring special-status animal species, and no special-status species were observed during the field survey. However, two special-status animal species, burrowing owl (*Athene cunicularia*) and Swainson's hawk (*Buteo swainsoni*), have some potential to occur on the project site due to the presence of potentially suitable habitat and known occurrence records in the project vicinity. The project site also contains suitable foraging and nesting habitat for a variety of common resident and migratory bird species.

With the implementation of recommended impact avoidance, minimization, and mitigation measures—including pre-construction surveys and avoidance of sensitive species and nesting birds—there would be no significant impacts to special-status biological resources resulting from the project.

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TABLES

ATTACHMENTS

Appendix A (Figures), Appendix B (Site Plan), Appendix C (Representative Site Photos), Appendix D (Vascular Species Observed), Appendix E (Regional Special-Status Species)

INTRODUCTION

LSA has prepared this Biological Resources Assessment (BRA) for the proposed DeWolf Avenue Apartments Project (project) located at the northwest corner of DeWolf Avenue and Ashlan Avenue Railroad in the City of Clovis (City), Fresno County, California (refer to Figure 1, Project Location; all figures are provided in Appendix A). The purpose of this report is to describe and document biological resources—including sensitive and special-status species—known to occur or with the potential to occur on the proposed project site. This technical information is provided for project planning purposes and review under the California Environmental Quality Act (CEQA), California Endangered Species Act (CESA), the Federal Endangered Species Act (FESA), and other pertinent regulations.

The BRA conducted for the project involved the following components:

- Reviewing existing relevant scientific literature and other pertinent information related to the project site;
- Creating a list of regionally occurring special-status species determined to have the potential to occur on or in the vicinity of the project site;
- Characterizing the vegetation communities present within the project site;
- Evaluating the potential for the occurrence of special-status plant and wildlife species within the project site;
- Assessing the potential for the project to adversely impact existing biological resources; and
- Recommending avoidance, minimization, and mitigation measures to avoid or minimize any potentially significant project-related impacts to biological resources.

PROJECT DESCRIPTION

The project involves the construction of 26 multi-family apartment units (refer to Appendix B, Site Plan). Regional access to the site is provided from Aslan Avenue to the south and DeWolf Avenue to the east. The project would not require any work within undeveloped lands outside of the approximately 1.62-acre project site.

PROJECT SETTING

The project site is located along the eastern portion of the San Joaquin Valley floor in Fresno County. Specifically, the project site is located on Assessor's Parcel Number 55-042-70 in the eastern quarter of the United States Geological Survey (USGS) *Clovis, California*, 7.5-minute topographic quadrangle map (refer to Figure 1). The "project site" discussed in this report refers to all areas within the 1.62-acre property where temporary and permanent ground disturbance would occur.

The project site contains one single family residential home that is currently unoccupied, and the remaining areas are undeveloped supporting ruderal vegetation (refer to Figure 2). According to historic aerial imagery, vegetation within the project site has been regularly maintained and the site has remained in its current condition for more than 20 years. Adjacent parcels consist of single-family homes and a high school. Recent developments along the margins of the City of Clovis and

expansion into ranch land settlements have brought increased urban development throughout lands previously used for agriculture. Some lands in the vicinity of the project site are fallow or active agricultural lands; however, most of the lands are developed and are a mixture of schools and residential uses. There are no undisturbed open spaces in the vicinity of the project site.

The project site is located within the San Joaquin Valley Sub-region of the California Floristic Province (Baldwin, et al. 2012) and within the Mill Ditch watershed (Hydrologic Unit Code # 180300090503). The project site is flat with almost no topographic variation and is at approximately 373 feet (113 meters) above mean sea level in elevation. There are no drainage features, depressional wetlands, or riparian areas present in the project site.

METHODS

LITERATURE REVIEW AND RECORDS SEARCH

LSA Biologist Kelly McDonald conducted a literature review and records search on May 2, 2022, to identify the existence and potential for occurrence of sensitive or special-status[1] plant and animal species in the vicinity of the project site. Federal and State lists of sensitive species were also examined. Current electronic database records reviewed included the following:

- **California Natural Diversity Data Base information (CNDDB – RareFind 5)**, 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. Records from nine USGS quadrangles surrounding the project site (*Malaga, Sanger, Clovis, Round Mountain, Friant, Academy, Fresno South, Lanes Bridge,* and *Fresno North*) were obtained from this database to inform the field survey.

- **California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants**, which utilizes four specific categories or "lists" of sensitive plant species to assist with the conservation of rare or endangered botanical resources. All of the plants constituting California Rare Plant Ranks 1A, 1B, 2A, and 2B are intended to meet the status definitions of "threatened" or "endangered" in CESA and the California Department of Fish and Game Code and are considered by CNPS to be eligible for State listing. At the discretion of the CEQA Lead Agency, impacts to these species may be analyzed as such, pursuant to the CEQA Guidelines Sections 15125(c) and 15380. Plants in Rank 3 (limited information; review list), Rank 4 (limited distribution; watch list), or that are considered Locally Unusual and Significant may be analyzed under CEQA if there is sufficient information to assess potential significant impacts. Records from the nine USGS quadrangles surrounding the project site were obtained from this database to inform the field survey.

- **United States Fish and Wildlife Service's (USFWS) Information for Planning and Conservation (IPaC) Online System**, which lists all proposed, candidate, threatened, and endangered species managed by the Endangered Species Program of the USFWS that have the potential to occur on or near a particular site. This database also lists all known critical habitats, national wildlife refuges, and migratory birds that could potentially be impacted by activities from a proposed project. An IPaC Trust Resource Report (USFWS 2022a) was generated for the project area.

[1] For the purposed of this report, the term "special-status species" refers to those species that are listed or proposed for listing under the CESA and/or FESA, California Fully Protected Species, California Species of Special Concern, and California Special Animals. It should be noted that "Species of Special Concern" and "California Special Animal" are administrative designations made by the CDFW and carry no formal legal protection status. However, Section 15380 of the CEQA Guidelines indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

- **Designated and Proposed USFWS Critical Habitat Polygons** were reviewed to determine whether critical habitat has been designated or proposed within or in the vicinity of the project site (USFWS 2022b).

- **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 (USFWS 2022c).

- **eBird:** eBird is a real-time, online checklist program launched in 2002 by the Cornell Lab of Ornithology and National Audubon Society. It provides rich data sources for basic information on bird abundance and distribution at a variety of spatial and temporal scales. eBird occurrence records within the project site and a 5-mile radius around the project site were reviewed in March 2022 (eBird 2022).

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.

FIELD SURVEY

A general biological survey of the project site was conducted by LSA Biologist Kelly McDonald on May 5, 2022. The project site was surveyed on foot, and all biological resources observed were noted and mapped. Suitable habitat for any species of interest or concern was duly noted, and general site conditions were photographed (Appendix C, Site Photos). The field survey took place on a sunny morning with weather conditions conducive to the detection of plant and animal species.

RESULTS

This section summarizes the environmental setting and provides further analysis of the data collected in the field. Discussions regarding the existing project site conditions, soils, vegetation communities, potentially occurring special-status biological resources, and habitat connectivity are presented below.

The project site consists of a relatively flat lot supporting ruderal vegetation and one single family residential home. Ruderal areas existing within the project site appear to be regularly maintained (e.g., mowed or disked). Perennial shrubs and ornamental trees are located within ornamentally landscaped areas associated with the single family residential home. Examples of the planted and maintained ornamental trees include tree of heaven (*Ailanthus altissima*; a nonnative species), pines (*Pinus* sp.; non-native species), red gum eucalyptus (*Eucalyptus camaldulensis*; non-native species), among others.

Habitat within the project site is considered low quality with respect to most of the special-status animal species identified during the literature review and the project site is not expected to support any special-status plant species (refer to Appendix E). Seven wildlife species were observed during the May 2022 field survey, including: northern mockingbird (*Mimus polyglottos*), California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), rock pigeon (*Columba livia*; nonnative species), California scrub jay (*Aphelocoma californica*), Botta's pocket gopher (*Thomomys bottae*), and European starling (*Sturnus vulgaris*; nonnative species).

No riparian habitat exists in the project site or on adjacent parcels and there are no depressional wetlands (e.g., vernal pools) or natural drainage features within the project site. The project site does not serve as a wildlife nursery or as a wildlife migration corridor. Further details regarding specific biological resources are provided in the following subsections.

VEGETATION COMMUNITIES AND LAND COVER TYPES

The project site is strictly upland in nature with dominant vegetation consisting of non-native grasses and herbaceous invasive species within the regularly disturbed (e.g., ruderal) areas, and ornamental landscaping within the developed portions. Ongoing soil disturbance and the resulting competitive exclusion by invasive nonnative plants limit the potential for native flora to occur in the project site. No native or special-status vegetation communities exist in the project site.

The acreages of each vegetation community and land cover type occurring in the project site are shown in Table A, below. Representative photographs of the project site are presented in Appendix C, and Figure 3 provides a map of these vegetation and land cover types within the project site.

Table A: Vegetation and Land Cover Types Within the Project site

Vegetation / Land Cover Type	Acreage[1]
Ruderal	0.80
Residential Development	0.84
Total	**1.64**

Compiled: LSA (May 2022)

[1] All acreages were calculated using geographic information system (GIS) measurements and are considered approximate.

A total of 35 vascular plant species were identified within the project site during the May 2022 field survey (refer to Appendix D). A total of 29 of these plant species (82 percent) represent nonnative taxa, reflecting a high level of disturbance within the project site.

Ruderal

Areas classified as ruderal consist of early successional nonnative grasses and pioneering herbaceous plants that readily colonize disturbed ground. Ruderal plants dominant within this area include weedy or pioneering species such as: Canadian horseweed (*Erigeron canadensis*), flax-leaved horseweed (*Erigeron bonariensis*), tumbleweed (*Amaranthus albus*), Russian thistle (*Salsola tragus*), redstem filaree (*Erodium cicutarium*), and jimsonweed (*Datura wrightii*). Several nonnative grasses were present in low cover which included Bermuda grass (*Cynodon dactylon*) and brome fescue (*Festuca bromoides*).

Residential Development

Developed sites consist of paved areas, buildings, and other areas that are cleared or graded for anthropogenic purposes. A portion of the project site is developed with an unoccupied single family residential home surrounded by ornamental trees and landscaping.

SOILS

According to the NRCS online soil survey of Fresno County, the project site is underlaid by San Joaquin sandy loam, as shown on Figure 4.

The parent material of this soil type is alluvium derived from granite, occurring between 90 and 520 ft (27 and 158 m) in elevation. The drainage class of this soil type is moderately well drained, and it is typically composed of sandy loam, sandy clay loam, clay, cemented material, and loam. San Joaquin sandy loam usually typically occurs on terraces and fan remnants. This soil is not classified as hydric.

SPECIAL-STATUS BIOLOGICAL RESOURCES

The Clovis region supports various special-status natural communities, plants, and animals. Appendix E provides tables that identify those special-status plant and animal species known to occur or that potentially occur in the vicinity of the project site (based on the literature review and experience in the region) and includes detailed information about each species' habitat and distribution, State and Federal status designations, and probability of occurrence within the project site. As stated in the methodology section above, the background research included occurrence records from nine USGS topographic quadrangles surrounding the survey area. A nine USGS quadrangle search covers a large, variable geographic and topographic area containing numerous habitat types not found within or around the project site.

The following subsections provide specific discussions for special-status natural communities, plant and animal species, and habitats of concern (including critical habitat, jurisdictional aquatic resources, wildlife movement corridors, and regional and local habitat conservation plans).

Special-Status Natural Communities

The CNDDB search identified occurrences of four special-status natural (i.e., plant) communities within the nine-quad search area: Great Valley Mixed Riparian Forest, Northern Claypan Vernal Pool, Northern Hardpan Vernal Pool, and Sycamore Alluvial Woodland.

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.

Special-Status Plants

The literature review identified 16 special-status plant species that are known to occur within a nine-quad radius of the project site (refer to Appendix E). The majority of the rare plant species that were identified in the databases have specialized habitat requirements (i.e., they occur on predominantly alkaline soils, woodland, riparian, or wetland habitats, etc.) that do not occur within the project site.

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

Special-Status Animals

The historic anthropogenic disturbances in the project site and adjacent parcels (i.e., development, etc.) have greatly altered, eliminated, or impacted the pre-settlement habitats needed to support most of the special-status animal species identified in the CNDDB and USFWS queries (refer to Appendix E). There are no known occurrences of any special-status animal species in the project site, and none were observed during the May 2022 field survey. Nonetheless, marginally suitable, isolated habitat for several regionally occurring special-status species is present in the project site and those species are discussed in further detail below.

Two special-status animal species, burrowing owl (*Athene cunicularia*) and Swainson's hawk (*Buteo swainsoni*) have low potential to occur in the project site due to the presence of potentially suitable habitat. However, no sign which would indicate occupation or use by these species (e.g., burrows, scat, stick nests, whitewash, or any other sign) was identified during the May 2022 survey. Several small mammal burrows, likely those of California vole (*Microtus californicus*), and/or Botta's pocket gopher (*Thomomys bottae*), were observed within the undeveloped portions of the project site. However, none of the small mammal burrows observed exhibited features typical of occupied

burrowing owl burrows, and recent site usage is unlikely given the lack of suitable burrows observed and the lack of recent occurrence records in the vicinity.

Marginally suitable nesting and foraging habitat for Swainson's hawk is present within the project site. There are also several eBird occurrence records of Swainson's hawk foraging within the project vicinity, with the most recent from April 2022. The project site contains mature ornamental trees that could offer suitable nesting habitat, although no suitable stick nests were observed during the survey. Potentially suitable foraging habitat is present and corresponds to the mapped ruderal vegetation shown on Figure 3.

The project site provides foraging and nesting habitat for a variety of bird species that are protected while nesting under the Migratory Bird Treaty Act and California Fish and Game Code.

The evaluation of special-status animal species occurrence within the project site was based on a habitat suitability analysis. It did not include exhaustive surveys to determine their presence or absence, but did include direct observation of on-site and off-site conditions and a review of the available recorded occurrence data from the area to conclude whether or not a particular species could be expected to occur. Based on this analysis, it is unlikely that the remaining special-status wildlife species listed in Appendix E would occupy or otherwise utilize the habitat present within the project site. Significant adverse impacts to special-status wildlife species are not anticipated with the implementation of the recommended impact avoidance, minimization, and mitigation measures described in further detail below.

Critical Habitat

The project site is not located within or adjacent to designated or proposed critical habitat for any species.

Jurisdictional Aquatic Resources

The project site is strictly upland in nature with well-drained soils. There are no records of wetlands or potential jurisdictional drainage features existing within the project site, and no potentially jurisdictional drainage features, wetlands, or riparian areas were observed on the project site.

Wildlife Movement and Habitat Connectivity

As the project site is isolated from natural areas, it is unlikely that the site serves as an important corridor for animals moving locally, regionally, or in broader migrations. Migratory bird species may utilize the project site for foraging; however, the usage is likely transient and limited to species that forage over open areas. The project site does not possess any characteristics that would indicate a locally significant stopover point for migratory species including raptors or waterfowl.

No known wildlife movement corridors occur within the project site or in the immediate vicinity.

Regional Habitat Conservation Plans and Local Policies

The City of Clovis and Fresno County currently do not have a regional Natural Community Conservation Plan (NCCP) or Habitat Conservation Plan (HCP). The 2014 General Plan for the City of

Clovis outlines local relevant policies related to biological resources. Below is the list of relevant polices from the City of Clovis General Plan:

- Policy 2.6: Biological resources. Support the protection of biological resources through the conservation of high-quality habitat area.

- Policy 2.7: Native plants. Encourage the use of native and climate-appropriate plant species and prohibit the use of plant species known to be invasive.

The City of Clovis Municipal Code *Chapter 9.30 Tree Protection Standards* outlines a tree removal permitting process. Several trees are present within the project site; however, based on the *Chapter 9.30.050 Exemptions,* any tree located on developed single-family residential property is exempt from the tree removal process. Protected trees that are not exempt from the tree removal process include heritage trees, twelve inches or greater in diameter, multi-trunk trees, parkway trees, and trees required by a site plan review. Based on the current design, the project would not be required to apply for a tree removal permit due to the zoning classification exemption.

IMPACT FINDINGS AND RECOMMENDED MITIGATION MEASURES

The following impact assessment and recommended mitigation measures are intended to support the CEQA review process. The project, as proposed by the applicant, coupled with LSA's survey results and review of biological literature, provided the basis for this analysis. The impact discussion below addresses the range of impacts that could result from the proposed project, as well as recommended mitigation measures that would avoid, reduce, or compensate for such impacts.

SPECIAL-STATUS NATURAL COMMUNITIES

The project site does not contain any special-status natural communities and such habitats would not be impacted by the proposed project.

SPECIAL-STATUS SPECIES

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

While no special-status animal species (or signs of such species) were observed on site during the May 2022 survey, several gopher (or vole) burrows were observed within the project site, however the site lacks California ground squirrel (*Otospermophilus beecheyi*) burrows which are more commonly used (and more suitable habitat) by burrowing owl, therefore further reduces the likelihood of occurrence. None of the gopher (or vole) burrows observed in the project site exhibited features typical of occupied burrowing owl burrows at the time of the survey, although there is some potential for use by these species within the ruderal land cover (0.8 ac) in the future. Potentially significant direct and indirect impacts, including mortality, harassment, or other forms of incidental take, could occur if construction-related ground disturbance occurs in or around an occupied burrow.

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

Mature ornamental trees on the project site could provide suitable nesting habitat for raptors or other shrub and tree-nesting species, such as Swainson's hawk. Other birds, such as mourning dove, may nest in annual herbaceous cover within ruderal portions of the project site. Several species could also nest within the developed portions of the site. To ensure compliance with the Federal Migratory Bird Treaty Act and California Fish and Game Code Sections 3500–3516, a pre-construction nesting bird survey is recommended prior to any vegetation clearing or land use changes planned to occur during the nesting bird season (January 1 through September 30). With successful implementation of Recommended Measure BIO-2, impacts to nesting birds would be avoided. Furthermore, Recommended Measure BIO-2a would be warranted in the unlikely event that Swainson's hawk was found to be nesting within the project site during the pre-construction

nesting bird survey. It should be noted that coordination and permitting would be required with CDFW if impacts to occupied Swainson's hawk nesting habitat are not avoided.

If unmitigated or avoided, potential direct and indirect impacts on special-status wildlife species and nesting birds could be considered potentially significant. However, implementation of Mitigation Measures BIO-1 through BIO-2a, as summarized below, would effectively mitigate any impacts on special-status wildlife species to less-than-significant levels.

Mitigation Measure BIO-1: **Conduct Preconstruction Clearance Surveys for Burrowing Owl.** A preconstruction clearance survey is required for burrowing owl no more than 30 calendar days prior to initiation of project activities. All survey results must be delivered to the City of Clovis. If an active burrowing owl burrow is found within the project site, the applicant must coordinate with CDFW to obtain applicable agency approval/direction prior to any ground disturbance activities on the site. Specific avoidance, den excavation, passive relocation, and compensatory mitigation activities shall be performed as required by CDFW. If no active burrowing owl burrows are identified, project activities may proceed as planned following the preconstruction survey.

Mitigation Measure BIO-2: **Nesting Bird Surveys and Avoidance.** If vegetation trimming/removal, construction, or grading activities are planned to commence within the active nesting bird season (February 15 through September 30), a qualified biologist shall conduct a preconstruction nesting bird survey no more than 5 days prior to the start of such activities. The nesting bird survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active by the qualified biologist. Documentation of all survey results shall be provided to the City.

Mitigation Measure BIO-2a: **Compensatory Mitigation for Swainson's Hawk.** If an occupied Swainson's hawk nest site is found within the project development limits during implementation of Mitigation Measure 2, the Applicant shall not proceed with any construction-related activities on the project site until the California Department of Fish and Wildlife (CDFW) has been consulted regarding the need to obtain an incidental take permit under the California Endangered Species Act

(CESA). Impacts will be minimized through permitting with CDFW and will be fully mitigated in accordance with CDFW requirements.

CRITICAL HABITAT

The project would not result in any impacts to critical habitat, and no additional mitigation is required.

JURISDICTIONAL AQUATIC RESOURCES

The proposed project would not result in any impacts to jurisdictional aquatic resources, and no mitigation is required.

WILDLIFE MOVEMENT AND HABITAT CONNECTIVITY

The wildlife species that occur in the project vicinity are adapted to the urban-wildland interface, and the project would not introduce new affects to the area. The noise, vibration, light, dust, or human disturbance within construction areas would only temporarily deter wildlife from using areas in the immediate vicinity of construction activities. These indirect effects could temporarily alter migration behaviors, territories, or foraging habitats in select areas. However, because these are temporary effects, it is likely that wildlife already living and moving in close proximity to urban development would alter their normal functions for the duration of the project construction and then re-establish these functions once all temporary construction effects have been removed. The proposed project would not place any permanent barriers within any known wildlife movement corridors or interfere with habitat connectivity. The impact is considered less than significant, and no mitigation is required.

REGIONAL HABITAT CONSERVATION PLANS AND LOCAL POLICIES

The project would not impact non-sensitive land cover types that are not protected under any regional conservation plans or local policies, therefore, the project would not conflict with any regional habitat conservation plan related to the protection and conservation of biological resources, and no additional mitigation is required.

CONCLUSION

Based on field observations coupled with the habitat suitability analysis conducted for this assessment, the proposed project has low potential to impact several regionally-occurring special-status wildlife species, but is not anticipated to impact any special-status plant species, natural communities, or other habitats of concern. The implementation of the recommended mitigation measures detailed herein would avoid impacts on special-status (or otherwise protected) species, or reduce any potentially significant impacts on special-status wildlife species to a less than significant level.

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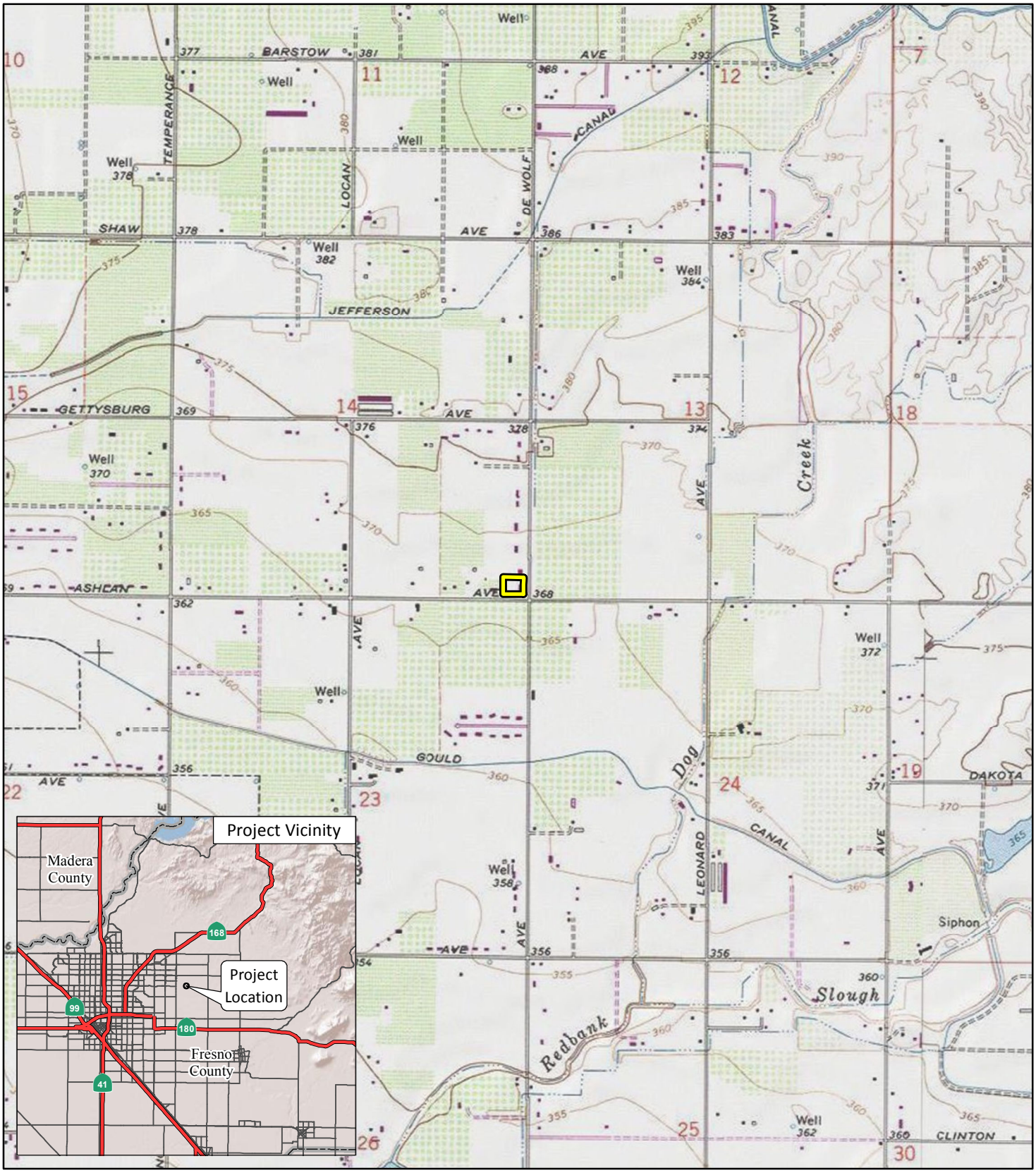
APPENDIX A

FIGURES



LSA

LEGEND

Project Location

FIGURE 1

N

0 1000 2000

FEET

SOURCE: USGS 7.5' Quad - *Clovis* (1981), *Round Mountain* (1978), CA

I:\HPT2201\GIS\MXD\ProjLoc_USGS.mxd (4/25/2022)

DeWolf Apartments Project

Project Location and Vicinity

LSA

LEGEND

Project Site

FIGURE 2

N

0 125 250

FEET

SOURCE: Nearmap (2/24/2022)

R:\HPT2201\GIS\MXD\Bio\ProjectArea.mxd (5/6/2022)

DeWolf Apartments Project

Project Area

LSA

LEGEND

Project Site

Vegetation and Land Cover

Ruderal

Residential Development

FIGURE 3

N

0 37.5 75

FEET

SOURCE: Nearmap (2/24/2022)

R:\HPT2201\GIS\MXD\Bio\Vegetation.mxd (5/6/2022)

DeWolf Apartments Project

Vegetation and Land Cover

LSA

LEGEND

Project Site

Soil Type

ScA- San Joaquin Sandy Loam

FIGURE 4

N

0 37.5 75

FEET

SOURCE: Nearmap (2/24/2022)

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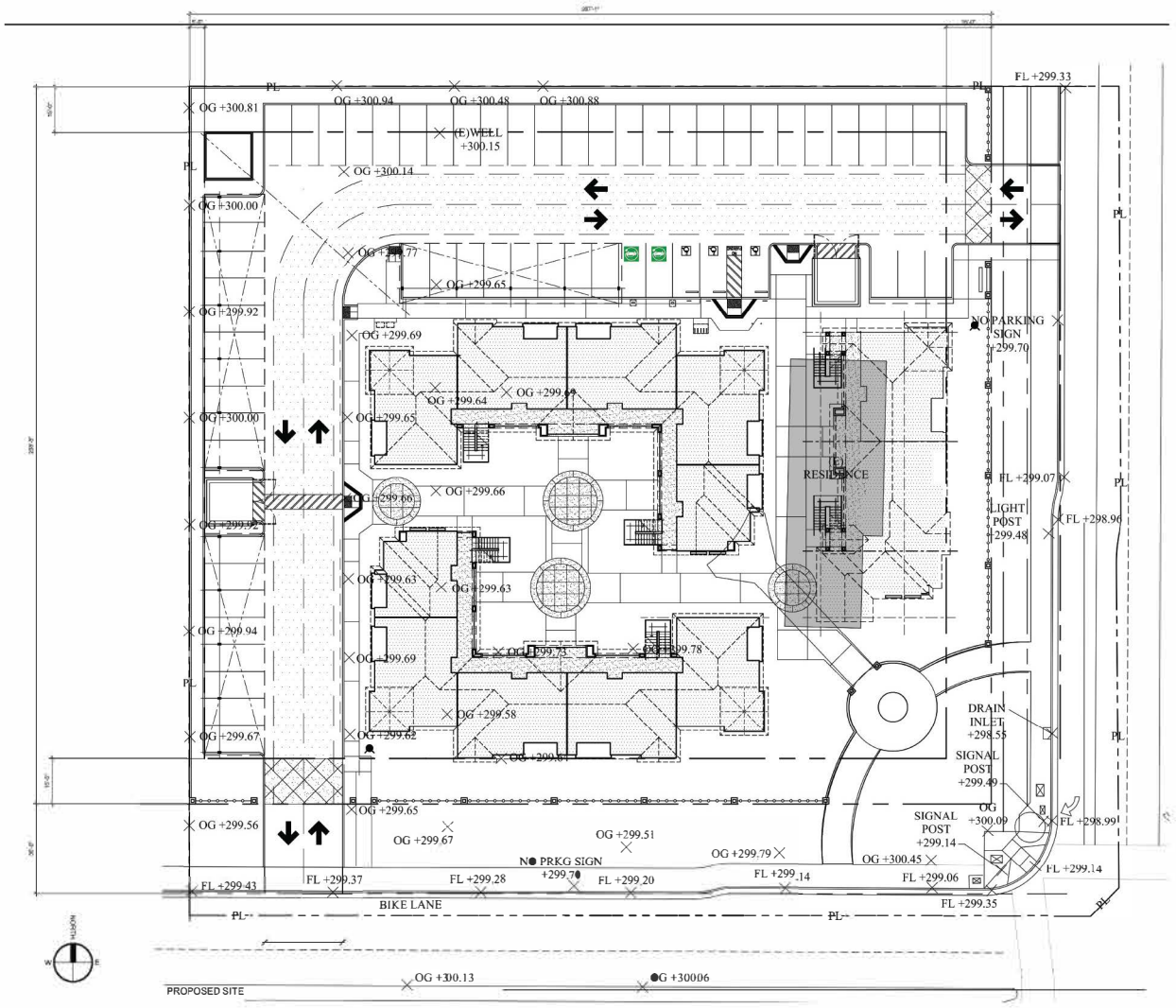
DeWolf Apartments Project

Soils

APPENDIX B

SITE PLAN



LSA

FIGURE 5

DeWolf Apartments Project

Conceptual Site Plan

SCALE: NOTTO SCALE
SOURCE: R Haus Design Studio, May 2022
I:\HPT2201\GIS\fig2_Siteplan.ai (07/12/2022)

APPENDIX C
REPRESENTATIVE SITE PHOTOS

View of the developed area and ornamental landscaping associated with the development, facing north. May 5, 2022

View of the ruderal vegetation, facing northwest. May 5, 2022

View of the ruderal vegetation, facing west. May 5, 2022

View of the ruderal vegetation, facing south. May 5, 2022

View of the ornamental landscaping and ruderal vegetation, facing east. May 5, 2022

View of the ruderal vegetation, facing north. May 5, 2022

View of developed area and ornamental landscaping, facing northeast. May 5, 2022

View of ruderal vegetation, facing west. May 5, 2022

APPENDIX D
VASCULAR SPECIES OBSERVED

Plant Species Observed

The table below contains a list of plant species identified on the project site by LSA Biologist Kelly McDonald on May 5, 2022.

* Introduced species not native to California

EUDICOTS	
Amaranthaceae	**Amaranth Family**
*Amaranthus albus**	Tumbleweed
Asteraceae	**Sunflower Family**
Erigeron canadensis	Canadian horsweed
*Erigeron bonariensis**	Flax-leaved horsweed
*Pseudognaphalium luteoalbum**	Jersey cudweed
*Sonchus oleraceus**	Common sow thistle
Brassicaceae	**Mustard Family**
*Capsella bursa-pastoris**	Shepherd's purse
Caprifoliaceae	**Honeysuckle Family**
*Lonicera sp.**	Honeysuckle
Caryophyllaceae	**Pink Family**
*Polycarpon tetraphyllum**	Four leaved all seed
Chenopodiaceae	**Goosefoot Family**
*Salsola tragus**	Russian thistle
Cupressaceae	**Redwood family**
Sequoia sempervirens	Coast redwood
Euphorbiaceae	**Spurge family**
Croton setiger	Doveweed
*Euphorbia maculate**	Spotted spurge
Geraniaceae	**Geranium Family**
*Erodium cicutarium**	Redstem stork's bill
Fagaceae	**Oaks Family**
Quercus lobata	Valley oak
Malvaceae	**Mallow Family**
*Malva parviflora**	Cheeseweed mallow
Moraceae	**Fig Family**
*Ficus carica**	Common fig
Oleaceae	**Olive Family**
*Ligustrum lucidum**	Glossy privet
Plantaginaceae	**Plantain Family**
*Plantago lanceolata**	English plantain
Portulacaceae	**Purslane Family**
*Portulaca oleracea**	Common purslane
Pinaceae	**Pine Family**
*Pinus sp.**	Pine
Pittosporaceae	**Pittosporum Family**
*Pittosporum tobira**	Japanese cheesewood
Rutaceae	**Rue Family**
*Citrus sp.**	Orange
Solanaceae	**Nightshade family**
*Datura wrightii**	Jimsonweed
Simaroubaceae	**Quassi Family**

*Ailanthus altissima**	Tree of Heaven
Verbenaceae	**Vervain family**
*Lantana montevidensis**	Trailing lantana
Zygophyllaceae	**Caltrop Family**
*Tribulus terrestris**	Puncture vine
MONOCOTS	
Myrtaceae	**Myrtle family**
*Eucalyptus camaldulensis**	Red gum
Poaceae	**Grass Family**
*Bromus catharticus**	Rescue grass
*Bromus hordeaceus**	Soft chess
*Cynodon dactylon**	Bermuda grass
*Festuca bromoides**	Brome fescue
*Hordeum murinum**	Foxtail barley
Melica californica	California melicgrass
*Poa annua**	Annual blue grass
Poa secunda	Nevada blue grass

APPENDIX E

SPECIAL-STATUS SPECIES IDENTIFIED AS POTENTIALLY OCCURING IN THE PROJECT VICINITY

Table B: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence and Rationale
Hoover's calycadenia	*Calycadenia hooveri*	US: – CA: – CNPS: 1B.3	Annual herb occurring in cismontane woodland and valley/foothill grassland between 215 and 985 m in elevation. Found in Calaveras, Madera, Mariposa, Merced, San Joaquin, and Stanislaus counties.	July-September	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.
Bristly sedge	*Carex comosa*	US: – CA: – CNPS: 2B.1	Perennial rhizomatous herb occurring in coastal prairie, marshes and swamps (lake margins) and valley/foothill grassland between 0 and 625 m in elevation. Found in Central Valley Counties.	May-September	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.
Succulent owl's-clover	*Castilleja campestris var. succulenta*	US: FT CA: CE CNPS: 1B.2	Annual herb (hemiparasitic) occurring in vernal pools between 50 and 750 m in elevation. Found in Central Valley counites.	April- May	**Not Expected.** There is one historical record of occurrence in the project vicinity (CNDDB 1991) and suitable habitat is absent from the project site.
California jewelflower	*Caulanthus californicus*	US: FE CA: CE CNPS: 1B.1	Annual herb occurring in chenopod scrub, pinyon and juniper woodland, and valley/foothill grassland in sandy soils between 61 and 1,000 m in elevation. Found in Central Coast and Central Valley counties.	February-May	**Not Expected.** There is one historical record of occurrence in the project vicinity (CNDDB 1986) and suitable habitat is absent from the project site.
Dwarf downingia	*Downingia pusilla*	US: – CA: – CNPS: 2B.2	Annual herb occurring in vernal pools and mesic valley/foothill grassland between 1 and 445 m in elevation. Found in Central Valley and Northern California counites.	March-May	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.
Spiny-sepaled button-celery	*Eryngium spinosepalum*	US: – CA: – CNPS: 1B.2	Annual/perennial herb occurring in vernal pools and valley/foothill grassland between 80 and 975 m in elevation. Found in Central Coast and Central Valley counties.	April-June	**Not Expected.** There is one historical record of occurrence in the project vicinity (CNDDB 1936) and suitable habitat is absent from the project site.

Table B: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence and Rationale
California satintail	*California satintail*	US: – CA: – CNPS: 2B.1	Perennial rhizomatous herb occurring in chaparral, coastal scrub, Mojavean desert scrub, meadows/seeps, and riparian scrub between 0 and 1,215 m in elevation. Found in Central Valley and Southern California counties.	September-May	**Not Expected.** There is one historical record of occurrence in the project vicinity (CNDDB 1893) and suitable habitat is absent from the project site.
Forked hare-leaf	*Lagophylla dichotoma*	US: – CA: – CNPS: 1B.1	Annual herb occurring in cismontane woodland and valley/foothill grassland between 45 and 335 m in elevation. Found in Merced, Fresno, Calaveras, and Stanislaus counites.	April- May	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.
Madera leptosiphon	*Leptosiphon serrulatus*	US: – CA: – CNPS: 1B.2	Annual herb occurring in cismontane woodland and lower montane coniferous forest between 300 and 1,300 m in elevation. Found in Fresno, Kern, Madera, Mariposa, and Tulare counites.	April-May	**Not Expected.** There is one historical record of occurrence in the project vicinity (CNDDB 1922) and suitable habitat is absent from the project site.
Pincushion navarretia	*Navarretia myersii ssp. myersii*	US: – CA: – CNPS: 1B.1	Annual herb occurring in vernal pools between 20 and 330 m in elevation. Found in Amador, Calaveras, Madera, Merced, Placer, and Sacramento counties.	April- May	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.
San Joaquin Valley Orcutt grass	*Orcuttia inaequalis*	US: FT CA: CE CNPS: 1B.1	Annual herb occurring in vernal pools between 10 and 755 m in elevation. Found in Fresno, Madera, Merced, Solano, Stanislaus, and Tulare counites.	April-September	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.
Hairy Orcutt grass	*Orcuttia pilosa*	US: FE CA: CE CNPS: 1B.1	Annual herb occurring in vernal pools between 46 and 200 m in elevation. Found in Glenn, Madera, Merced, Stanislaus, and Tehama counites.	May-September	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.
Hartweg's golden sunburst	*Pseudobahia bahiifolia*	US: FE CA: CE CNPS: 1B.1	Annual herb occurring in cismontane woodland and valley/foothill grassland between 15 and 150 m in elevation.	March-April	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.

Table B: Special-Status Plant Species Potentially Occurring in the Project Vicinity

Common Name	Scientific Name	Status	General Habitat Description	Flowering Period	Likelihood of Occurrence and Rationale
San Joaquin adobe sunburst	*Pseudobahia peirsonii*	US: FT CA: CE CNPS: 1B.1	Annual herb occurring in cismontane woodland and valley/foothill grassland in adobe clay between 90 and 800 m in elevation. Found in Fresno, Kern, and Tulare counties.	February-April	**Not Expected.** There is one record of occurrence in the project vicinity (CNDDB 2010) and suitable habitat is absent from the project site.
Sanford's arrowhead	*Sagittaria sanfordii*	US: – CA: – CNPS: 1B.2	Perennial rhizomatous herb (emergent) occurring in marshes and swamps within shallow freshwater between 0 and 650 m in elevation. Found throughout California counites.	May-October	**Not Expected.** There is one historical record of occurrence in the project vicinity (CNDDB 1986) and suitable habitat is absent from the project site.
Greene's tuctoria	*Tuctoria greenei*	US: FT CA: CR CNPS: 1B.1	Annual herb occurring in vernal pools between 30 and 1,070 m in elevation. Found in Central Valley counties.	May-July	**Not Expected.** There is one historical record of occurrence in the project vicinity (CNDDB 1937) and suitable habitat is absent from the project site.

[1]Project vicinity = Project site plus a 5 mile buffer

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

California Native Plant Society Designations:
1B = Rare, threatened, or endangered in California and elsewhere
2B = Rare, threatened, or endangered in California, but not elsewhere and ,
0.1 = seriously endangered
0.2 = fairly endangered

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

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

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
CRUSTACEANS				
Vernal pool fairy shrimp	*Branchinecta lynchi*	US: FT CA: –	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**Not Expected.** There are four records of occurrence in the project vicinity [1] (CNDDB 1993, 2006, 2008,2009) and suitable habitat is absent from the project site.
Vernal pool tadpole shrimp	*Branchinecta mesovallensis*	US: – CA: SA	Vernal pools in the Central Valley.	**Not Expected.** There are three records of occurrence in the project vicinity (CNDDB 2007) and suitable habitat is absent from the project site.
California linderiella	*Linderiella occidentalis*	US: – CA: SA	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.	**Not Expected.** There are two records of occurrence in the project vicinity (CNDDB 1994) and suitable habitat is absent from the project site.
INSECTS				
Crotch bumble bee	*Bombus crotchii*	US: – CA: SA	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum*.	**Not Expected.** There is one known historical record of occurrence in the project vicinity (CNDDB 1899) and suitable habitat is absent from the project site. No typical food genera was observed during the May 2022 field survey.
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	US: FT CA: –	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.
Antioch efferian robberfly	*Efferia antiochi*	US: – CA: SA	Known only from Contra Costa and Fresno counties.	**Not Expected.** There is one known historical record of occurrence in the project vicinity (CNDDB 1954) and suitable habitat is absent from the project site.
Molestan blister beetle	*Lytta molesta*	US: – CA: SA	Inhabits the Central Valley of California, from Contra Costa to Kern and Tulare counties.	**Not Expected.** There is one known historical record of occurrence in the project vicinity (CNDDB 19XX) and suitable habitat is absent from the project site.
Hurd's metapogon robberfly	*Metapogon hurdi*	US: – CA: SA	Known only from Antioch Dunes and Fresno.	**Not Expected.** There is one known historical record of occurrence in the project vicinity (CNDDB 1922) and suitable habitat is absent from the project site.
AMPHIBIANS				

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

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
California tiger salamander - central California DPS	*Ambystoma californiense pop. 1*	US: FT CA: CT	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	**Not Expected.** There are three records of occurrence in the project vicinity (CNDDB 1936, 1974, 2017) and suitable habitat is absent from the project site.
Western spadefoot	*Spea hammondii*	US: – CA: SSC	Occurs primarily in grassland and other relatively open habitats. Found in elevations ranging from sea level to 4,500 ft. Requires temporary pools for breeding.	**Not Expected.** There is one record of occurrence in the project vicinity (CNNDB 2008) and suitable habitat is absent from the project site.
REPTILES				
Northern California legless lizard	*Anniella pulchra*	US: – CA: SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	**Not Expected.** There is one known historical record of occurrence in the project vicinity (CNDDB 18XX) and suitable habitat is absent from the project site.
California glossy snake	*Arizona elegans occidentalis*	US: – CA: SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	**Not Expected.** There is one known historical record of occurrence in the project vicinity (CNDDB 1893) and suitable habitat is absent from the project site.
Western pond turtle	*Emys marmorata*	US: – CA: SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Not Expected.** There is one record of occurrence in the project vicinity (CNDDB 2016) and suitable habitat is absent from the project site.
Coast horned lizard	*Phrynosoma blainvillii*	US: – CA: SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial and abundant supply of ants and other insects.	**Not Expected.** There is one known historical record of occurrence in the project vicinity (CNDDB 1893) and suitable habitat is absent from the project site.
BIRDS				
Tricolored blackbird	*Agelaius tricolor*	US: – CA: SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	**Not Expected.** There is one record of occurrence in the project vicinity (CNDDB 1994) and suitable habitat is absent from the project site.
Burrowing owl	*Athene cunicularia*	US: – CA: SSC	Burrows in open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	**Low probability of occurrence.** There are two records of occurrence in the project vicinity (CNDDB 1990) and several eBird records with the most recent from March 2021. However, the ruderal vegetation provides marginal suitable habitat and several gopher burrows

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

Common Name	Scientific Name	Status Listing	Habitat and Comments	Likelihood of Occurrence and Rationale
				were observed. The gopher burrows could provide suitable burrowing habitat.
Swainson's hawk	*Buteo swainsoni*	US: – CA: CT	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, and agricultural/ranch lands. Requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations.	**Moderate probability of foraging; moderate probability of nesting.** There is one record of occurrence in the project vicinity (CNDDB 1956). There are several eBird records with the most recent from April 2022. The project site does contain trees and shrubs that provide marginal suitable nesting habitat. The surrounding areas on the project site could also provide suitable foraging habitat.
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	US: FT CA: CE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**Not Expected.** There are two historical records of occurrence in project vicinity (CNDDB 1898, 1902) and suitable habitat is absent.
Least Bell's vireo	*Vireo bellii pusillus*	US: FE CA: CE	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	**Not Expected.** There are two historical records of occurrence in project vicinity (CNDDB 1906, 1912) and suitable habitat is absent.
MAMMALS				
American badger	*Taxidea taxus*	US: – CA: SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Not Expected.** There is one record of occurrence in project vicinity (CNDDB 1987) and suitable habitat is absent.
San Joaquin kit fox	*Vulpes macrotis mutica*	US: FE CA: CT	Prefers open, level areas with loose-textured soils supporting scattered, shrubby vegetation with little human disturbance. Some agricultural areas may support these foxes.	**Not Expected.** There are no known historical records of occurrence in the project vicinity and suitable habitat is absent from the project site.

[1]Project vicinity = Project area plus a 5 mile buffer
Status: Federal Endangered (FE), Federal Threatened (FT), Federal Candidate (FC), Federal Proposed (FP, FPE, FPT), Federal Delisted (FD), California Endangered (CE), California Threatened (CT), California Species of Special Concern (SSC), California Fully Protected Species (CFP), California Special Animal (CSA)

CA = California

ft = foot/feet
m = meter/meters
mi = mile/miles
US = United States

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

August 22, 2022

Peter Sumal
3008 North Vahe Avenue
Fresno, CA 93737

Subject: Archaeological Resources Survey Assessment for the DeWolf Apartments Project in Fresno County, California (LSA Project HPT2201)

Dear Mr. Sumal:

LSA conducted an archaeological resources survey assessment (study) for the proposed DeWolf Apartments Project (project) in Clovis, Fresno County, California. The project site is currently developed with one single-family residential home with areas of vegetation, and the proposed project would involve demolition of the existing home and construction of 26 multifamily apartment units. Study work was completed per the requirements of the California Environmental Quality Act of 1970 (CEQA).

This study has the following purposes: (1) identify archaeological deposits that may meet the CEQA definition of a historical resource (California Public Resources Code [PRC] Section 21084.1) or a unique archaeological resource (PRC Section 21083.2) and that may be impacted by the proposed project; (2) assess the potential for human remains; and (3) recommend procedures for avoiding or mitigating impacts to such deposits, if warranted. The study consisted of background research and a field survey and was conducted by LSA Associate/Senior Cultural Resources Manager Kerrie Collison, M.A., Registered Professional Archaeologist (RPA) 28731436.

PROJECT SITE LOCATION AND CHARACTERISTICS

The 1.62-acre project site, which is also the study site, is depicted on the United States Geological Survey (USGS) *Clovis, California* 7.5-minute topographic quadrangle map in Section 14 of Township 13 South, Range 21 East, Mount Diablo Baseline and Meridian (USGS 1981; Figure 1 [all figures provided in Attachment B). It is within Assessor's Parcel Number 555-042-70, on the northwest corner of the intersection of DeWolf Avenue and Ashlan Avenue (Figure 2).

The project site is flat and is at an elevation of approximately 375 feet. The nearest freshwater source would have been Dog Creek, which is 0.5 mile east of the project site. Soil surveys (USDA n.d.) indicate that the project site consists of San Joaquin sandy loam sediments, which are terraces and fan remnants derived from granite that typically consist of sandy loam, sandy clay loam, and clay 19 to 25 inches below the surface, with duripan (a cemented hardpan) below. Surficial sediments of the project site overlay geologic deposits, specifically older alluvium, lake, playa, and terrace deposits that date to the Pleistocene (2.58 million to 11,700 years ago) (CGS 2015).

BACKGROUND RESEARCH

Southern San Joaquin Valley Information Center

A record search of the project site and a 0.5-mile search radius was conducted on May 10, 2022, by Jeremy E. David, Assistant Coordinator at the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System at California State University, Bakersfield (SSJVIC Records Search File No. 22-182). The SSJVIC, an affiliate of the California Office of Historic Preservation, is the official repository of cultural resources records and reports for Fresno County. The record search results (Attachment C) indicate that one previous cultural resources study (a survey) has included a portion of the project site. Eleven previous cultural resources studies have included a portion of the 0.5-mile radius of the project site; all of these studies have been field surveys. More than 90 percent of the search radius has been studied for cultural resources. As a result of previous cultural resources studies, no cultural resources have been recorded within the project site or the 0.5-mile radius.

Native American Heritage Commission

On April 26, 2022, LSA submitted a request to the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File (SLF) for the presence of Native American cultural resources that might be impacted by the proposed project. The NAHC maintains the SLF database and is the official State repository of Native American sacred-site location records in California.

NAHC Cultural Resources Analyst Cameron Vela responded on June 22, 2022, stating that the results of the SLF search were negative (Attachment D). The NAHC also provided a suggested list of Native American individuals to contact for information regarding the project site.

Aerial Photographs and Maps

Aerial photographs and historic maps that include the project site were also reviewed (USGS n.d.; NETR n.d.). The results of the review are presented in Table A.

Table A: Aerial Photograph and Historic Map Review

Map/Photograph	Results
1923 *Clovis, California* map (Scale 1:31,680)	No buildings or developments are depicted on the project site. Roads are delineated in the vicinity of the project site. Dog Creek is depicted 0.5 mile east of the project site.
1946 *Clovis, California* map (Scale 1:62,500)	No changes from the 1923 map.
1962 aerial photograph	The project site is an agricultural field with no buildings.
1964 *Clovis, California* map (Scale 1:24,000)	No changes in the project site from the 1923 map.
1972 aerial photograph	A house is depicted in the eastern portion of the project site.
1984 aerial photograph	A swimming pool has been added to the project site. No other changes observed.
1998 aerial photograph	No changes in the project site from the 1984 aerial photograph.

Sources: United States Geological Survey (n.d.) and National Environmental Title Research (n.d.).

FIELD SURVEY

On May 25, 2022, LSA archaeologist Kerrie Collison conducted a pedestrian field survey of the entire project site. Approximately 50 percent of the project site is developed as either a residential building and backyard with swimming pool or maintained landscaping. Unpaved and undeveloped areas of the project site were intensively surveyed to examine the project site for any indications of archaeological deposits and/or human remains. The undeveloped, western portion of the project site had 50 percent ground visibility, with sparse, ankle-high vegetation (see Photo 1, below).

Photo 1: Undeveloped portion of project site. View north.

The field survey did not identify any archaeological cultural resources in the project site. Observed sediments throughout the project site were either a light-brown or medium-brown fine-grained (but compacted) material.

SUMMARY AND RECOMMENDATIONS

This study, consisting of background research and a field survey, did not identify archaeological deposits or human remains in the project site. Prior to its partial development for residential purposes, the project site was used for agricultural purposes. Agricultural use of the project site would have disturbed surficial and near-surficial sediments that may have contained prehistoric archaeological resources and later grading for residential development of the eastern portion of the project site would have disturbed the same sediments. While Dog Creek (which would have been a freshwater water source for prehistoric and historic-period populations) is 0.5 mile from the project site, the mapped geologic deposits that underlay the surficial sediments of the project site date to

the Pleistocene, a time that does not include human occupation of the region. At least half of the project site has undergone surficial ground disturbance associated with residential development and the other portion of the project site was subject to decades of agricultural disturbance. Given that agricultural discing activities can disturb sediments to a depth of approximately 18 inches below the surface and mapped sediments of the project site indicate that duripan begins at approximately 25 inches below the surface, there is a low likelihood that subsurface archaeological deposits exist within the project site.

Given the above factors, the potential for the project to impact intact and significant cultural resources is low, and no further cultural studies are recommended for this project. LSA recommends that, in the event that archaeological resources are identified during project activities, work should be halted immediately within 50 feet of the find until a qualified professional archaeologist is contacted to assess the nature and significance of the find and determine if any additional study or treatment of the find is warranted. The archaeologist should develop proper mitigation measures required for the discovery per California Code of Regulations, Title 14, Chapter 3, Section 15064.5(f). Additional studies could include, but would not be limited to, collection and documentation of artifacts, documentation of the cultural resources on State of California Department of Parks and Recreation Series 523 forms, or subsurface testing. If determined appropriate by the qualified archaeologist, archaeological monitoring should commence and continue until grading and excavation are complete or until the monitoring archaeologist determines, based on field observations and in consultation with the qualified archaeologist, that there is little likelihood of encountering additional archaeological cultural resources. Archaeological monitoring may be reduced from full-time to part-time or spot-checking if determined appropriate by the qualified archaeologist based on monitoring results. Upon completion of any monitoring activities, the archaeologist should prepare a report to document the methods and results of monitoring activities. The final version of this report should be submitted to the SSJVIC.

In the event that human remains are encountered at any time during project work, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Fresno County Coroner has made a determination of origin and disposition pursuant to State PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner would notify the NAHC within 24 hours, which would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The MLD's recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials, preservation of Native American human remains and associated items in place, relinquishment of Native American human remains and associated items to the descendants for treatment, or any other culturally appropriate treatment.

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

Sincerely,

LSA Associates, Inc.

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

Attachments: A—References
B—Project Figures
C—Records Search Results
D—Native American Heritage Commission Response

ATTACHMENT A

REFERENCES

California Geological Survey (CGS)
2015 Geologic Map of California. Website: https://maps.conservation.ca.gov/cgs/gmc/ (accessed July 13, 2022).

National Environmental Title Research (NETR)
n.d. Historic Aerials. Website: http://www.historicaerials.com (accessed July 13, 2022).

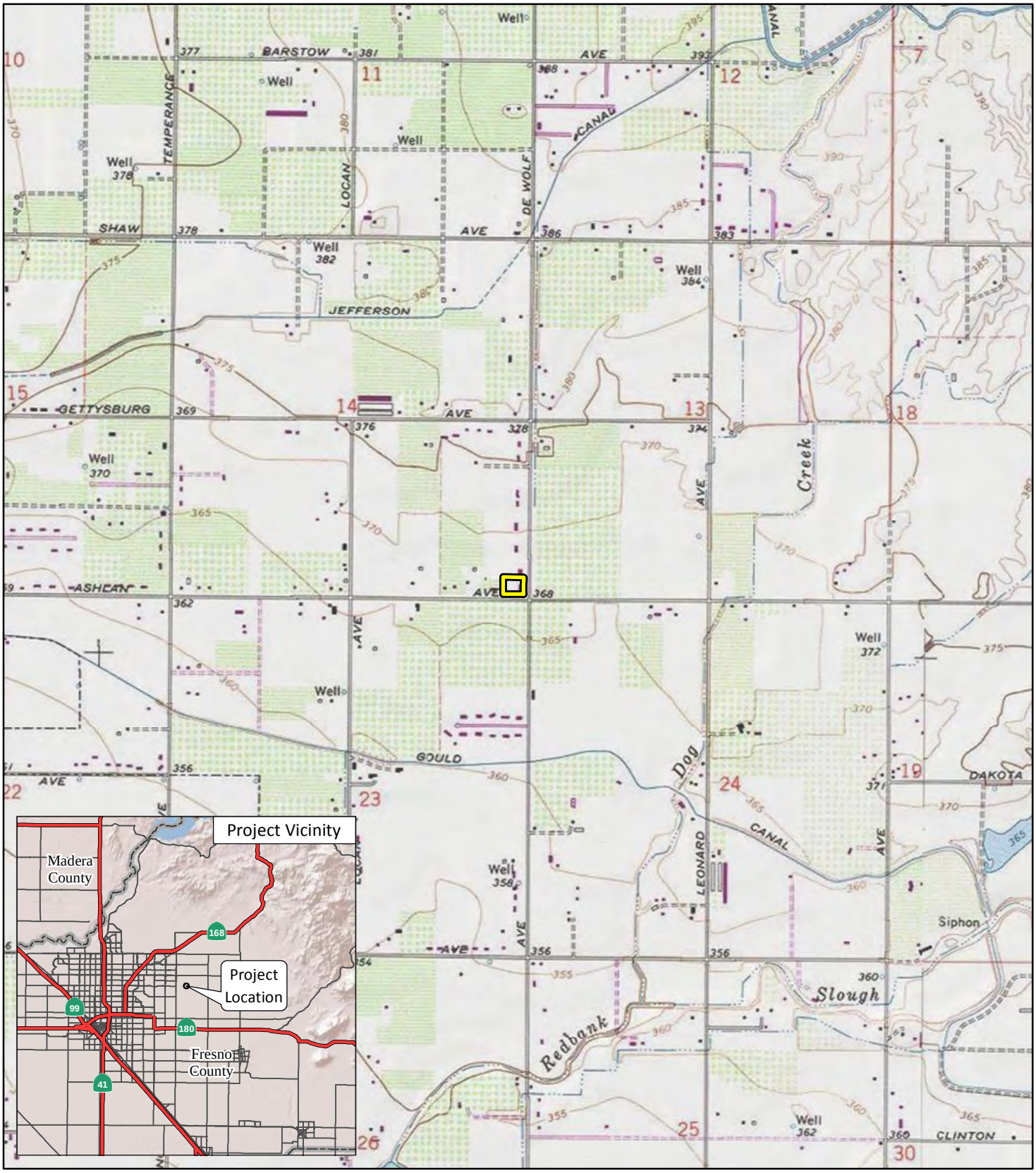
United States Department of Agriculture Natural Resources Conservation Service (USDA)
n.d. Web Soil Survey. Website: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed July 13, 2022).

United States Geological Survey (USGS)
1981 *Clovis, California* 7.5-minute topographic quadrangle. Published 1964. Photorevised 1981. USGS, Denver, Colorado.

n.d. USGS topoView. Website: https://ngmdb.usgs.gov/topoview/viewer/#4/39.98/-100.02 (accessed July 13, 2022).

ATTACHMENT B

PROJECT FIGURES



LSA

LEGEND

Project Location

FIGURE 1

N

0 1000 2000

FEET

SOURCE: USGS 7.5' Quad - *Clovis* (1981), *Round Mountain* (1978), CA

I:\HPT2201\GIS\MXD\ProjLoc_USGS.mxd (4/25/2022)

DeWolf Apartments Project

Project Location and Vicinity

LSA

LEGEND

Project Location

FIGURE 2

N

0 125 250

FEET

SOURCE: Nearmap (2/24/2022)

I:\HPT2201\GIS\MXD\ProjectArea.mxd (4/25/2022)

DeWolf Apartments Project

Project Area

ATTACHMENT C

RECORDS SEARCH RESULTS

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

5/10/2022

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

Re: DeWolf Apartments Project (HPT2201, Phase 03)
Records Search File No.: 22-182

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

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

Resources within project area:	None
Resources within 0.5 mile radius:	None
Reports within project area:	FR-01797
Reports within 0.5 mile radius:	FR-00118, 00297, 0112, 0114, 01619, 02042, 02043, 02099, 02356, 02577, 03012

Note: 3 Non-Arch resources were omitted from all results, as per request.

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.glorecords.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.

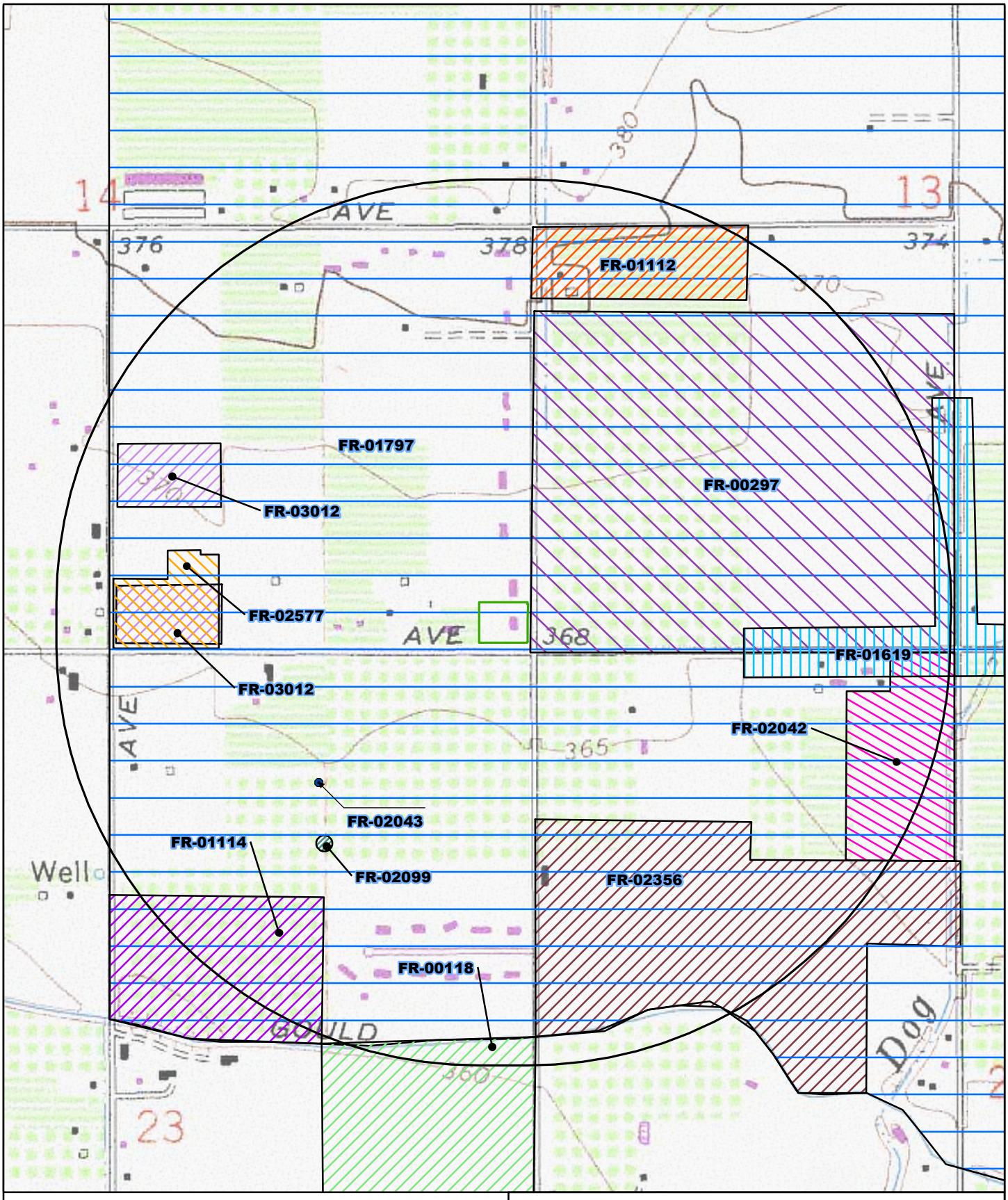
Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that 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

0 0.05 0.1 0.2 Miles

0 0.075 0.15 0.3 Kilometers

N

SSJV Information Center Record Search 22-182
Requester: Kerrie Collison, LSA
Project Name: DeWolf Apartments Project (HPT2201, Phase 03)
USGS 7.5' Quad(s): Clovis
County: Fresno

Report List

SSJVIC Record Search 22-182

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
FR-00118	NADB-R - 1141390	1991	Bissonnette, Linda Dick	Cultural Resources Survey for Rural Residential Development of Tract #4249 in Fresno County	Michael Paoli and Associates	
FR-00297		1993	Bissonnette, Linda Dick	Cultural Resources Assessment Clovis Unified School District Southeast Educational Center Ashlan and De Wolf Avenues, Fresno County	Cultural Resources Consulting	
FR-01112	NADB-R - 1140732	1995	Wren, Donald G.	Addendum to Cultural Resources Assessment Clovis Unified School Distirct Southeast Education Center Ashlan and De Wolf Avenues, Fresno County	Individual Consultant	
FR-01114		1995	Wren, Donald G.	An Archaeological Survey of a Proposed Ponding Basin, Locan Avnue, Fresno County, California	Individual Consultant	
FR-01619		1999	Wren, Donald G.	Dog Creek Cultural/Historical Resource Report	Individual Consultant	
FR-01797		2002	Wren, Donald G.	A Cultural Resource Study for the Clovis Southeast Specific Plan, Clovis, California	Individual Consultant	10-004757, 10-004758, 10-004759, 10-004760, 10-004761, 10-004779, 10-004780, 10-004781, 10-004782, 10-004783
FR-02042		2004	Varner, Dudley M.	A Cultural Resource Study of the Ashland-Leonard Property, Fresno County, California	Varner Associates	
FR-02043	Submitter - Temperance/CA-1753D	2004	Billat, Lorna	Proposed Cellular Tower Project in Fresno County, California (Temperance/CA-1753D)	EarthTouch, Inc.	
FR-02099		2005	Bonner, Wayne H.	Records Search Results and Site Visit for Cricket Telecommunications Facility Candidate FAT-034A (Ashlan/DeWolf), 7715 East Ashlan, Clovis, Fresno County, California	Michael Brandman Associates	
FR-02356		2010	Varner, Dudley M.	Cultural Resource Study for a Two Creeks South Project (DeWolf & Leonard) in the City of Clovis, Fresno County, California	Varner Associates	
FR-02577		2013	Baloian, Randy M.	Cultural Resources Inventory for the Proposed Sonrise Village in Clovis, Fresno County, California	Applied EarthWorks, Inc.	
FR-03012	Submitter - Job #18-036	2018	Peak, Melinda A.	Cultural Resource Assessment for Tract 6225, City of Clovis Fresno County, California	Peak & Associates, Inc.	

ATTACHMENT D

NATIVE AMERICAN HERITAGE COMMISSION RESPONSE

NATIVE AMERICAN HERITAGE COMMISSION

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

June 22, 2022

Kerrie Collison
LSA

Via Email to: Kerrie.Collison@lsa.net

Re: DeWolf Apartments Project, Fresno County

Dear Ms. Collison:

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

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

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

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

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Fresno County
6/22/2022

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

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

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

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

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

North Fork Rancheria of Mono Indians
Elaine Fink, Chairperson
P.O .Box 929
North Fork, CA, 93643
Phone: (559) 877 - 2461
Fax: (559) 877-2467
efink@nfr-nsn.gov
Mono

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

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

Picayune Rancheria of Chukchansi Indians
Heather Airey, Tribal Historic Preservation Officer
P.O. Box 2226
Oakhurst, CA, 93644
Phone: (559) 795 - 5986
hairey@chukchansi-nsn.gov
Foothill Yokut

Picayune Rancheria of Chukchansi Indians
Claudia Gonzales, Chairwoman
P.O. Box 2226
Oakhurst, CA, 93644
Phone: (559) 412 - 5590
cgonzales@chukchansitribe.net
Foothill Yokut

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

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

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

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed DeWolf Apartments Project, Fresno County.

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

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

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 781 - 4271
Fax: (559) 781-4610
neil.peyron@tulerivertribe-nsn.gov

Tule River Indian Tribe
Kerri Vera, Environmental Department
P. O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
kerri.vera@tulerivertribe-nsn.gov

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct. — Foothill Yokut
Salinas, CA, 93906 — Mono
Phone: (831) 443 - 9702
kwood8934@aol.com

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

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed DeWolf Apartments Project, Fresno County.

PROVOST&PRITCHARD
CONSULTING GROUP

455 W Fir Ave • Clovis, CA 93611 • (559) 449-2700
www.provostandpritchard.com

TECHNICAL MEMORANDUM

To:	Gene Abella, PE City of Clovis
From:	Nicholas Jacobson, PE
Subject:	Water Infrastructure Investigation for GPA 2023-002 at the Northwest Corner of Ashlan and DeWolf Avenues
Date:	September 1, 2023

DATE SIGNED 9/1/2023

Provost and Pritchard Consulting Group has prepared this technical memorandum summarizing the findings of our investigation into the water system infrastructure required to serve a proposed development located at the northwest corner of Ashlan and DeWolf Avenues (APN 555-042-70).

Project Information

It is our understanding that the proposed development (Project) will have a land use designation of high density residential (15.1 – 25.0 dwelling units per acre [du/ac]), which differs from the original designation of low residential (2.1 – 4.0 du/ac). originally considered for this area in the City of Clovis Water Master Plan (WMP) Update – Phase III (Provost & Pritchard, 2018).

The following is a summary of the project, and pertinent information related to it with regard to water supply:

- The Project is comprised of three, two-story, residential buildings. The combined total of the three buildings includes 28 residential dwelling units that occupy approximately 26,300 square feet.
- The Project is proposed to be constructed on an approximately 1.62-acre parcel (APN: 555-042-70).
- The Project is not large enough to trigger a Water Supply Assessment (WSA) per the California Water Code.
- The entire Project is within the Kings River service area for FID, which means the Project has access to water from the Kings River as a source of supply.
- The existing project site consists of a single-family residential building.

Collectively the existing water distribution facilities convey water from the surface water treatment plant and a local well near the Project. This portion of the City's potable water system is within the pressure zone called "Zone 2." Attachment A shows the existing and planned infrastructure in the area.

Assumptions

The following assumptions apply to this investigation:

- The City requires a minimum of two points of connection to the existing water system.
- Master planned water infrastructure near the Project are existing.
- The developer is responsible for sizing all water mains and other water related infrastructure internal to the Project.
- The Clovis Fire Department (CFD) requires a minimum fire flow of 1,800 gallons per minute (gpm) and a minimum residual pressure of 35 psi, per CFD Standard #2.3.
- Existing and proposed water system demands will be based on unit demands from the WMP.

- Existing infrastructure sizes based on GIS data from City (see Attachment A).
- Recycled water will not be applied to public landscaping surrounding the Project.
- Hydraulic model analysis was not completed as part of this investigation.

Water Demand

Potable water demands for the Project were estimated using land-use-based unit water demand factors from the WMP. Table LU-2 in the Land Use Element of the City General Plan (GP) states that high density residential has an allowable density of 15.1 – 25.0 du/ac. The proposed use will consist of three separate residential buildings that have a total of 28 residential dwellings units on 1.62 acres, which equates to a density of 17.28 du/ac, consistent with the designation of high density residential land use. Table 1 summarizes unit demand factors used to estimate demand for typical planning conditions such as annual average, maximum day, and peak hour.

Table 1. Summary of Unit Water Demands by Land Use

SUMMARY OF UNIT WATER DEMANDS BY LAND USE			
Land Use	**Annual Average (AFY/ac)**	**Maximum Day (gpm/ac)**	**Peak Hour (gpm/ac)**
Existing – Low Density Residential	2.50	2.63	4.65
Proposed – High Density Residential	4.70	4.95	8.74

Notes:
1. Source for unit water demand values was Table 5-3.1 in WMP.
2. Abbreviations: AFY = Acre-feet per year, gpm = gallons per minute, ac = acre(s)

Water usage for each demand category was estimated by multiplying gross acreage of land use type by its respective unit demand. Refer to Table 2 for a summary of anticipated water demands for existing and proposed conditions.

Table 2. Summary of Total Water Demands by Land Use

SUMMARY OF TOTAL WATER DEMANDS BY LAND USE				
Land Use	**Area (ac)**	**Annual Average (AFY)**	**Maximum Day (gpm)**	**Peak Hour (gpm)**
Existing – Low Density Residential	1.62	4.1	4.3	7.5
Proposed – High Density Residential	1.62	7.6	8.0	14.2

Infrastructure

There is an existing 16-inch water transmission main fronting the Project in Ashlan Avenue and an existing 12-inch water distribution main fronting the Project in DeWolf Avenue north of Ashlan Avenue. In addition, there is an 8-inch distribution main in DeWolf Avenue south of Ashlan Avenue.

Connection to the existing water system should be provided in two locations as required by City standards. The information provided by the City for the Project does not provide locations for proposed connections to City distribution infrastructure.

Water Supply

Urbanization within Clovis occurs both inside and outside the Kings River service area for Fresno Irrigation District (FID), therefore not all lands have access to this water source. Lands generally located south and west of the Enterprise Canal are within the Kings River service area and as such are entitled to an average annual allotment of approximately 2.24 acre-feet per acre (AF/ac). Some land uses within the City have unit demands greater than the 2.24 AF/ac supply available. The City adopted an ordinance requiring new development with demands exceeding the allotment to pay fees, so the City can acquire additional water supply to serve the development. Since the entirety of the Project is within the FID service area, water from the Kings River is available to offset the anticipated annual demand of 7.6 acre-feet. See Table 3 for summary of reconciliation of supply and demand for existing and proposed land use conditions.

Table 3. Reconciliation of Supply and Demand

RECONCILIATION OF SUPPLY AND DEMAND			
Land Use	**Average Day Demand (AFY)**	**FID Entitlement (AFY)**	**Additional Supply Required (AFY)**
Existing – Low Density Residential	4.1	3.6	(0.4)
Proposed – High Density Residential	7.6	3.6	(4.0)

Summary

Based on information collected during this investigation and the City's adherence to recommendations from prior water supply planning efforts, the existing and planned water distribution system and recommended connections should be adequate to convey water supply to the Project to support anticipated demands from the Project. As the Project falls within the FID boundary, there is surface water entitlement available for its water supply, however the Project will need to pay fees to the City to make up a supply shortfall of about 4 AFY.

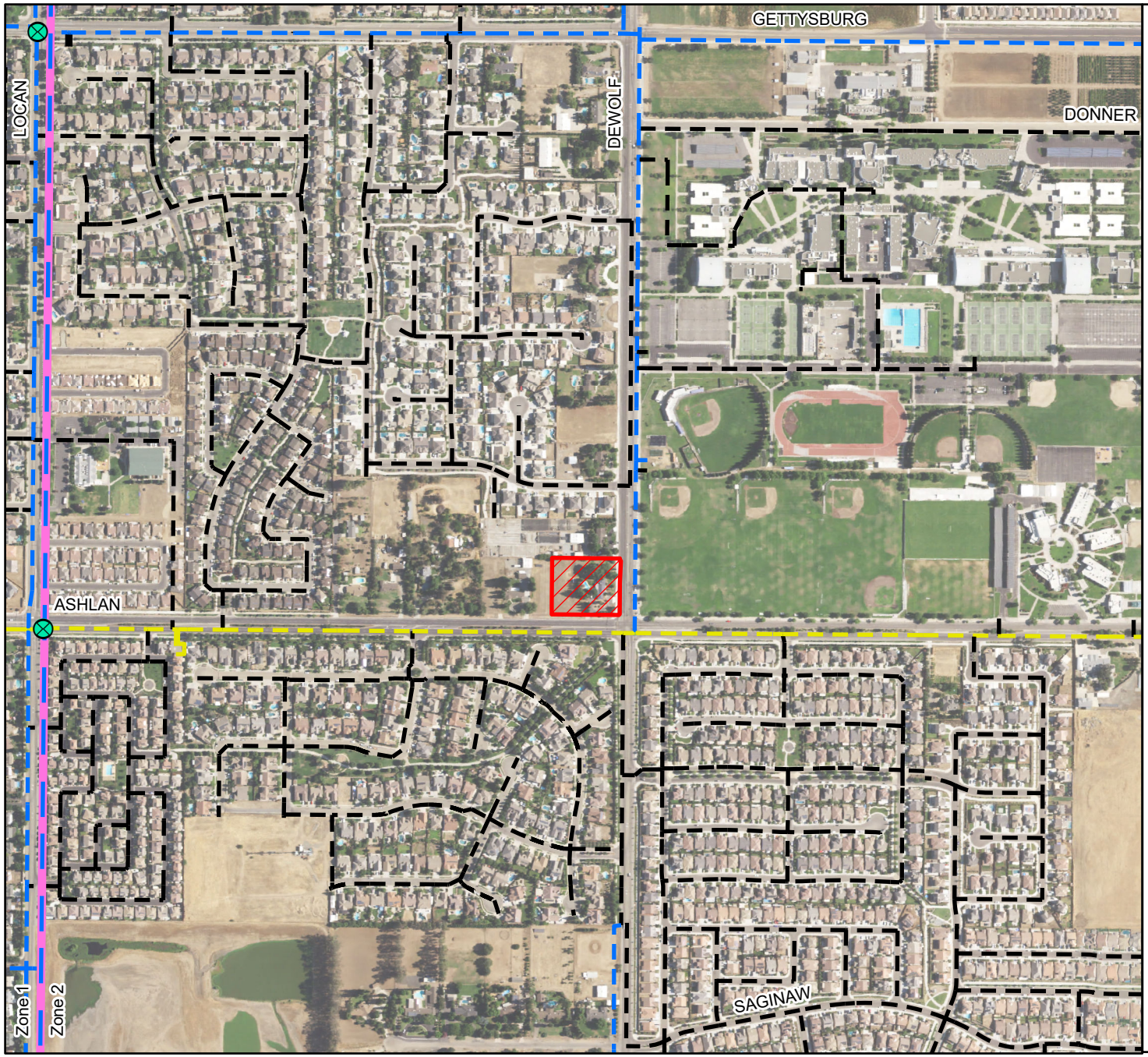
Serving this Project should not negatively impact the City's ability to provide a supply and delivery of water to reasonably foreseeable users within the City assuming adherence to recommendations from prior water resources planning efforts. However, to understand the cumulative impacts to supplies and other major water infrastructure, the City should be tracking changes in demand as part of the development process in order to determine when projects with greater demand are offset by projects with demands lower than originally planned.

Enclosures: 1

Attachment A – Water Facilities Exhibit

c: Thad Avery

Attachment A



CITY of CLOVIS CALIFORNIA

Legend

- Project_Site
- Pressure Sustaining Valve
- Pressure Zone Boundary

Existing Water Mains

Size (in inches)

- 8"
- 12"
- 16"

Exhibit
Water Facilities

Water System Evaluation

EST. 1968
PROVOST& PRITCHARD
CONSULTING GROUP
An Employee Owned Company

N

0 250 500
Feet

8/21/2023: \\ppeng.com\pzdata\clients\Clovis_City of - 1017\GIS\1017OG01\2022\03 DRC 2021-0040 Ashland and DeWolf\400 GIS\Map\City_of_Clovis_ Ashland_DeWolf_Mapping\City_of_Clovis_ Ashland_DeWolf_Mapping.aprx

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

MEMORANDUM

DATE: August 22, 2022

TO: Sean K. Smith, Supervising Civil Engineer, City of Clovis

FROM: Ambarish Mukherjee, Principal

SUBJECT: DeWolf Apartments Project Trip Generation Analysis and Vehicle Miles Traveled Analysis Memorandum

LSA has prepared this trip generation analysis and vehicle miles traveled (VMT) analysis memorandum (memo) for the proposed DeWolf Apartments Project (project) located at 3182 DeWolf Avenue, northwest of the intersection of DeWolf Avenue and Ashlan Avenue, in Clovis. Figure 1 (all figures and tables attached) illustrates the regional and project location.

The project will include development of 26 multifamily apartment units on a 1.62-acre site. Figure 2 illustrates the conceptual site plan for the project. The project will include a General Plan Amendment (GPA) because it changes the land use from Low Density (L) to High Density (H).

The objectives of this memo are:

- To perform a trip generation analysis and determine whether a Local Transportation Analysis (LTA) is required for the project; and
- To determine whether a VMT analysis is required for the project.

Trip Generation Analysis

The City of Clovis (City) *Interim Transportation Impact Study (TIS) Guidelines,* dated July 14, 2020, states that an LTA needs to be prepared if a project generates 100 or more trips during any peak hour or if the project includes a GPA that changes the use to a designation that has a potential to generate a higher number of vehicle trips than the existing or originally planned land use designation. The project trip generation was developed using rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition) for Land Use 220 – "Multifamily Housing (Low-Rise) Not Close to Rail Transit." Table A (attached) shows the project trip generation. As shown in Table A, the project is anticipated to generate 11 trips in the a.m. peak hour, 13 trips in the p.m. peak hour, and 175 daily trips. Therefore, the anticipated number of peak-hour trips generated by the proposed project is substantially lower than the trip threshold (100 peak-hour trips) established by the City's TIS Guidelines for preparation of an LTA. As previously stated, the project includes a GPA. However, multifamily units are anticipated to generate lower trips than single-family detached houses permitted under Low Density land use in the City's General

Plan. Therefore, the project can be considered to be less intensive than the General Plan land use. As such, an LTA may not be required for the project.

Vehicle Miles Traveled Analysis

On December 28, 2018, the California Office of Administrative Law cleared the revised California Environmental Quality Act (CEQA) Guidelines for use. Among the changes to the Guidelines was removal of vehicle delay and level of service as the sole basis for determining CEQA impacts. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT. The VMT analysis for the project was prepared based on the City's TIS Guidelines.

As per the City's TIS Guidelines, townhomes/attached residential projects including less than 68 dwelling units (DUs) can be considered to be screened from a VMT analysis since they generate less than 500 daily vehicle trips. As shown in Table A, the project is anticipated to generate only 175 daily trips, which is significantly lower than the City's 500 daily trip threshold for screening of projects from a VMT analysis. Therefore, the project can be anticipated to have a less than significant VMT impact and may be screened out from a VMT analysis.

If you have any questions, please do not hesitate to contact me at (951) 781-9310 or Ambarish.Mukherjee@lsa.net.

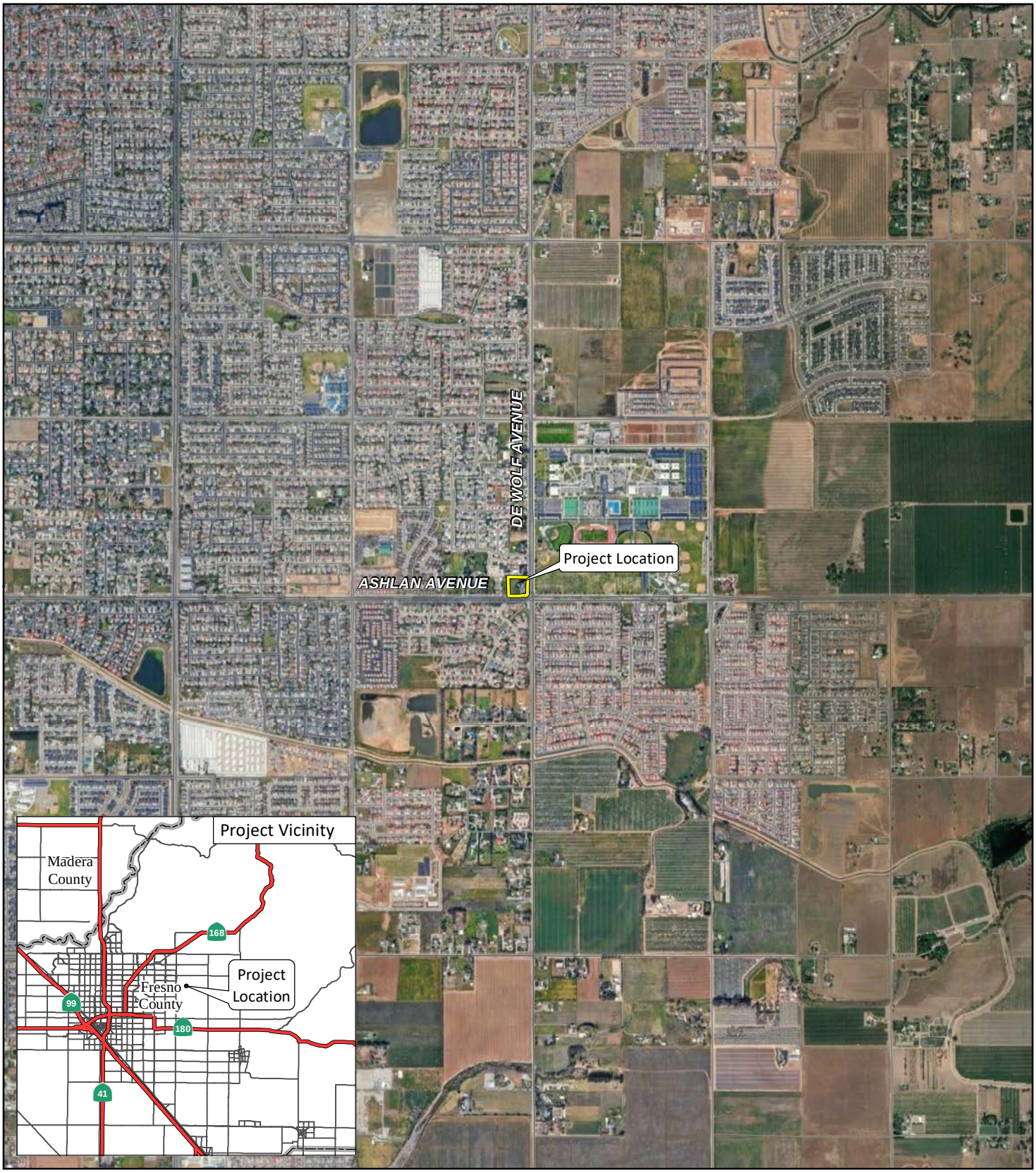
Sincerely,

LSA Associates, Inc.

Ambarish Mukherjee, AICP, PE
Principal

Attachments: Figure 1: Regional and Project Location
Figure 2: Conceptual Site Plan
Table A: Project Trip Generation

FIGURES



LSA

FIGURE 1

N

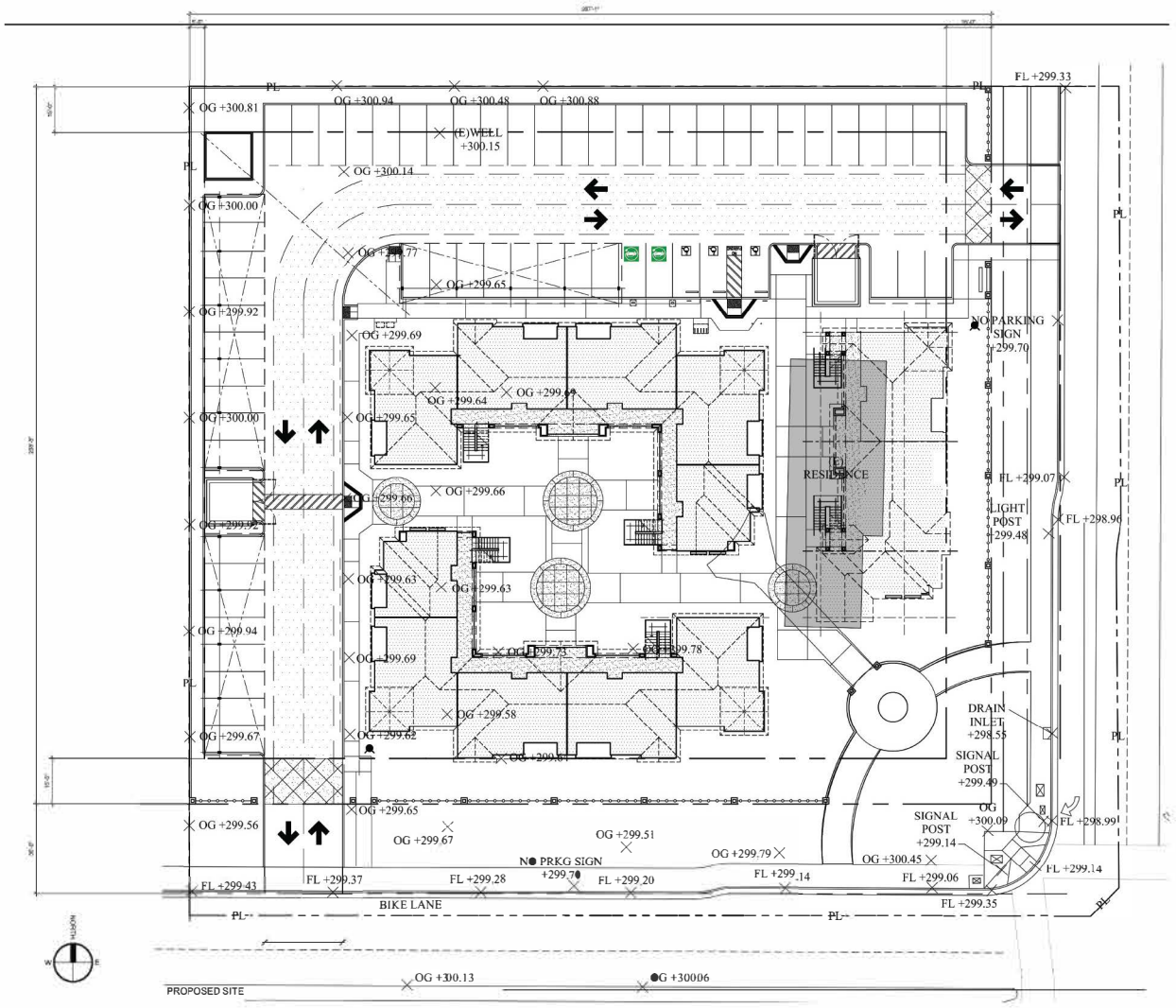
0 1000 2000
FEET

SOURCE: ESRI Streetmap, 2013; Google Earth, 2018.

I:\HPT2201\GIS\fig1_Reg_ProjLoc.mxd (4/28/2022)

DeWolf Apartments Project
Trip Generation Analysis and Vehicle Miles Traveled Analysis Memorandum

Regional and Project Location



LSA

FIGURE 2

DeWolf Apartments Project
Trip Generation Analysis and Vehicle Miles Traveled Analysis Memorandum

SCALE: NOTTO SCALE
SOURCE: R Haus Design Studio, May 2022
I:\HPT2201\GIS\fig2_Siteplan.ai (07/12/2022)

Conceptual Site Plan

TABLES

LSA

Table A - Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Apartments	26 DU							
Trips/Unit[1]		0.10	0.30	0.40	0.32	0.19	0.51	6.74
Trip Generation		3	8	11	8	5	13	175

Notes:

DU = Dwelling Units

[1] Rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition), Land Use 220 - "Multifamily Housing (Low-Rise) Not Close to Rail Transit", Setting/Location - "General Urban/Suburban."

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

MEMORANDUM

DATE: August 23, 2022

TO: Peter Sumal, Client

FROM: Casey Tibbet, M.A., Associate/Cultural Resources Manager/Architectural Historian

SUBJECT: Historical Resources Evaluation of the Residence at 3182 De Wolf Avenue, Clovis, California (LSA Project Number HPT2201)

In compliance with the California Environmental Quality Act (CEQA), LSA completed a historical resources evaluation of the single-family residence at 3182 De Wolf Avenue (Assessor's Parcel Number 555-042-70) in Clovis, California. The residence was documented on Department of Parks and Recreation forms and evaluated under the criteria for listing in the California Register of Historical Places (California Register). To accomplish this, LSA conducted research and completed a field survey of the property.

As a result of these efforts, it was determined that the 1970 Ranch-style residence does not appear to be eligible for listing in the California Register under any criteria. It is an unremarkable example of a common type and style, and no evidence was found indicating it is associated with important people in history. It was built during the post-World War II residential development boom (1945–1973), which is a significant event in history, but is not part of a residential subdivision and individually it is no more representative of this event than millions of similar residences throughout the region.

For these reasons, the residence at 3182 De Wolf Avenue does not qualify as a "historical resource" as defined by CEQA and, for purposes of this project, the City of Clovis may make a finding of "no impact" with regard to historic-period (50 years of age or older) built environment resources.

Attachment: DPR 523A Form

1500 Iowa Avenue, Suite 200, Riverside, California 92507 951.781.9310 www.lsa.net

Appendix F

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 5 **Resource Name or #:** 3182 De Wolf Avenue

P1. Other Identifier: _____

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Fresno **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** *Clovis, CA* **Date:** 1981 **T**13S; **R**21E; Section 14; M.D.**B.M.**

c. Address: 3182 De Wolf Avenue **City:** Clovis **Zip:** 93619

d. UTM: Zone: 11; _____mE/ _____mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #): Assessor Parcel Number (APN) 555-042-70, located on the northeast corner of Ashlan Avenue and De Wolf Avenue.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This one-story, Ranch-style residence is situated on the northwest corner of De Wolf Avenue and Ashlan Avenue in an area that is primarily developed with single-family residential subdivisions and Clovis High School. The house is irregular in plan, rests on a raised foundation, and is surmounted by a low-pitched side-gable and gable-on-hip roof sheathed with composition shingles that has moderate eaves. The exterior walls are clad with a combination of board-and-batten siding (entry area), stucco, and brick veneer (front porch area). Fenestration consists of modern vinyl-framed sliding windows, one of which is flanked by decorative shutters. The east-facing façade includes a recessed, stucco-clad wing with one window flanked by shutters, a south-facing window, a covered porch that shelters two windows and the recessed main entry, a projecting stucco-clad wing with a ribbon window. The porch roof is supported by three wood posts. The south elevation has no openings. The west (rear) elevation has two garage doors, a patio cover supported by wood posts, a wood and glass door, and some windows. The north elevation has two windows. The property is in fair condition and, aside from the modern windows and stucco, appears to retain a fair degree of integrity.

***P3b. Resource Attributes:** (List attributes and codes) HP2-Single-family property

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) Façade, view to the west (5/27/22). Façade, view to the northwest (5/27/22)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1970 (Redfin 2022)

***P7. Owner and Address:**
Unknown

***P8. Recorded by:** (Name, affiliation, and address)
Casey Tibbet, M.A.
LSA Associates, Inc.
1500 Iowa Avenue, Suite 200
Riverside, CA 92507

***P9. Date Recorded:**
May 27, 2022

***P10. Survey Type:** (Describe) Intensive-level CEQA compliance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")

***Attachments:** ☐NONE ☐Location Map ☐Sketch Map ☐Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 6Z

***Resource Name or #** (Assigned by recorder) 3182 De Wolf Avenue

B1. Historic Name:
B2. Common Name:
B3. Original Use: Single-family residence **B4. Present Use:** Single family residence
***B5. Architectural Style:** Ranch
***B6. Construction History:** (Construction date, alterations, and date of alterations)

A public records request was submitted to the City of Clovis requesting all building permits for this address. The City responded that it has no permits for this address. According to Redfin, a real estate website, Fresno County records indicate the residence was built in 1970 (Redfin 2022). This is supported by a historic aerial photograph dated May 1, 1970, that clearly shows the residence (Fresno State var.). Aerial photographs taken in 1967 show the subject property developed as agricultural land with no buildings (Fresno State var.).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** _____ **Original Location:** _____
***B8. Related Features:**

B9a. Architect: None found. **b. Builder:** None found.
***B10. Significance: Theme:** Post World-War II Residential Development (1945-1973); Residential Architecture
Area: City of Clovis
Period of Significance: 1970 **Property Type:** Residential **Applicable Criteria:** NA
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This 1970 Ranch-style residence is not eligible for listing in the California Register of Historical Resources (California Register) under any criteria. No local criteria for historical significance were found. It is not a historical resource as defined by the California Environmental Quality Act (CEQA).

Historic Context. Clovis started as a freight stop along the San Joaquin Valley Railroad (SJVRR) in 1891 (Clovis Rotary n.d.). The SJVRR purchased land from local farmers Clovis Cole and George Owen and constructed tracts on the borderline between the two properties (Clovis Rotary n.d.). Although they built the station on the land formerly owned by Owens, they named it Clovis (Clovis Rotary n.d.). In December 1891, Marcus Pollasky, a Michigan railroad (*see Continuation Sheet*)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

California Department of Transportation
2011 *Tract Housing in California, 1945-1973. A Context for National Register Evaluation.* Caltrans Division of Environmental Analysis, Sacramento.

City of Clovis
n.d. About Clovis. Website: https://cityofclovis.com/government/about-clovis/ (accessed online February 2022).

Clovis Rotary
n.d. History of Clovis. Website: https://clovisrotaryclub.com/History%20of%20Clovis.html (accessed online February 2022).

Fresno State
Var. Aerial Photograph Collection. Website: https://guides.library.fresnostate.edu/mapcollections/aerialphotocollection (accessed online June 2022).

See Continuation Sheet

B13. Remarks:

***B14. Evaluator:** Casey Tibbet, M.A., LSA Associates, Inc., 1500 Iowa Avenue, Suite 200, Riverside, CA 92507

***Date of Evaluation:** June 2022

(Sketch Map with north arrow required.)

Refer to DPR Location Map

(This space reserved for official comments.)

***B10. Significance** (continued from page 2)
speculator and partner in the SJVRR, bought additional land from Owens and Cole where Fresno civil engineer Ingvart Tielman mapped a townsite (Clovis Rotary n.d.). Laid out on what had been Owens' land, the townsite was named Clovis and featured streets named for the principals in the SJVRR (Clovis Rotary n.d.). Around this same time, a group of Michigan lumbermen were acquiring thousands of acres of timber in the Sierra Nevada about 75 miles northeast of Fresno (Clovis Rotary n.d.). They built a dam across Stevenson Creek, creating a lake that helped them move freshly cut timber to a mill next to the lake and from there they constructed a 42-mile long, 25-foot high, V-shaped flume that propelled the lumber to a planing mill east of the Clovis railroad station (Clovis Rotary n.d.). The flume was completed in 1894 and the commencement of operations at the Clovis mill stimulated development around Clovis (Clovis Rotary n.d.). Mill employees began building houses near the mill and soon businesses, churches, and schools were built to support the new community. In addition to the mill, the expansion of grain production and livestock raising contributed to the growth of the town (City of Clovis n.d.). The post office opened in 1895, and by 1896, the town had a population of about 500 (Clovis Rotary n.d.). Clovis incorporated in 1912 (City of Clovis n.d.). In 1914, the mill burned and was not rebuilt (Clovis Rotary n.d.). Clovis, which remained an agricultural community into the 1970s, has celebrated its western lifestyle with the annual Clovis Rodeo, as well as street festivals such as Big Hat Days, ClovisFest, and Friday Night Farmer's Market (Historicaerials.com var.; Clovis Rotary n.d.).

People Associated with this Residence. No information about any people associated with this residence was found.

Architectural Context. Typical characteristics of the Ranch style include a one-story configuration; a sprawling layout, often laid out in an L or U shape that creates backyard privacy; low-pitched hip, gable, or gable-on-hip roof with wide eaves; a variety of wood, brick, and stucco siding, often in combination; wood-frame, double-hung windows, often with multiple lights or diamond-panes; a large picture window in the façade, often flanked by narrower windows; and an attached two-car garage. Decorative features include scalloped vergeboards, false cupolas and dovecotes, extended gable eaves, and turned porch supports. Later examples of the style incorporate aluminum-framed vertical-slider windows instead of wood-framed double-hung windows.

Significance Evaluation. This property is being evaluated under the criteria for listing in the California Register in compliance with CEQA. No local criteria for historical significance were found.

Criterion 1 - Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States. This residence is associated with the post-World War II residential boom that made a significant contribution to the broad patterns of local, regional, and even national history. "More than 40 million housing units were built in the United States during the 30 year period following the end of World War II, and at least 30 million of these were single-family houses" (California Department of Transportation 2011:2). These homes were typically modest in size and style and constructed in a short time as part of large tracts marketed to the working class. "The fundamental unit for postwar housing is not the individual house, but the tract, or a single construction phase within a larger tract or new community" and typically a single home would not be individually significant in this context (California Department of Transportation 2011:121). As with most homes associated with this historic context, individually this residence is unimportant and insignificant.

Criterion 2 - Associated with the lives of persons important to local, California or national history. No evidence was found indicating that any historically significant persons are associated with this residence.

Criterion 3 - Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values. The residence embodies several of the character-defining features of the Ranch style of architecture including a one-story configuration, a low-pitched gable and gable-on-hip roof, a combination of brick, stucco, and wood siding, and an attached, two-car garage. However, it is a pedestrian example of the style that does not rise to a level above the ordinary. No evidence was found that it is the work of a master, and it does not possess high artistic values.

Criterion 4 - Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation. This residence was built in 1970 using common materials and construction practices. It does not have the potential to yield information important to the history or prehistory of the local area, California, or the nation.

See Continuation Sheet

***B12. References:** (continued from page 2)

Historicaerials.com
Var. Website: https://www.historicaerials.com/viewer (accessed June 2022).

Marthedal
1976-2022 Clovis, California: History, Facts, and Information. Website: https://aamarthedal.com/clovis-california-facts-information/#:~:text=The%20city%20got%20its%20name,named%20after%20Cole's%20first%20name (accessed February 2022).

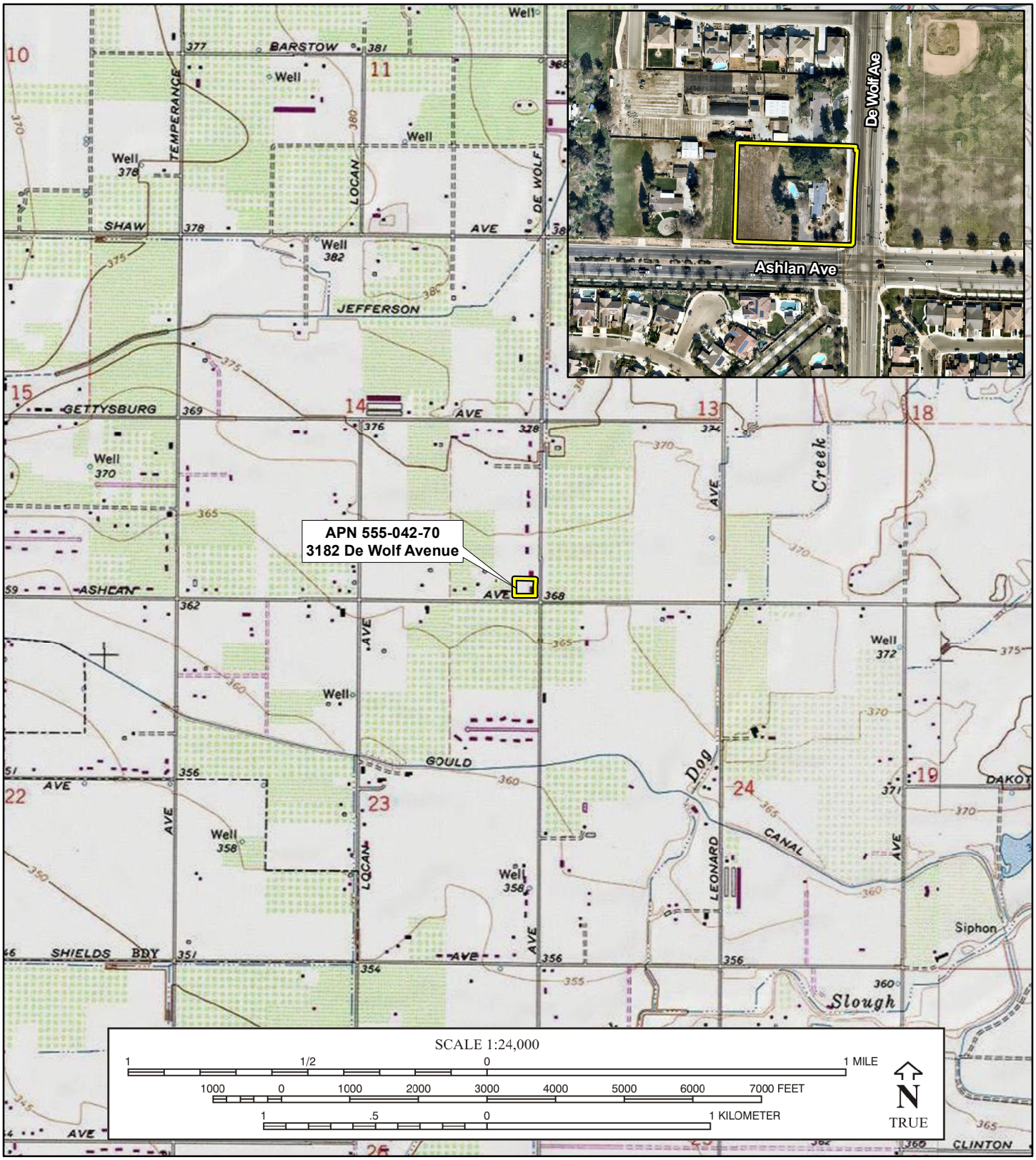
Redfin
2022 3182 De Wolf Avenue. Website: https://www.redfin.com/CA/Clovis/3182-De-Wolf-Ave-93619/home/143276636#property-details (accessed May 2022).

State of California - Resource Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____

*Resource Name or 3182 De Wolf Avenue

*Map Name: USGS 7.5' Quad, Clovis, Round Mountain; Nearmap *Scale: 1:24000 *Date of Map: 1981, 1978; 2022



I:\HPT2201\GIS\MXD\Cultural\DPRlocation_55504270.mxd (6/10/2022)

DPR 523J (1/95)

***Required Information**

Blair, Church & Flynn
CONSULTING ENGINEERS

Brad Kerner, PE · BKerner@bcf-engr.com
451 Clovis Ave, Suite 200 · Clovis CA 93612 · Tel (559) 326-1400

Gene G. Abella
City of Clovis
1033 Fifth Street
Clovis, CA 93612

September 5, 2023
File No. 219-0204(19)

October 27, 2023: Addendum
Sean Smith, PE - Supervising Civil Engineer

Subject: 28-Unit Multiple Family Development on Ashlan Avenue and DeWolf Avenue, GPA 2023-002

Dear Gene:

This letter provides the results and findings of our wastewater service study for GPA 2023-002, pursuant to your July 24, 2023 email message.

Under the entitlement, a developer proposes to construct a 28-unit multi-family residential development (MFRD) on a 1.62 acre parcel of land situated near the northwest corner of Ashlan Avenue and DeWolf Avenue, namely Assessor's Parcel Number (APN) 555-04-70. The City of Clovis Wastewater Collection System Master Plan (Master Plan) is based on a hydraulic model of the wastewater system. Included in the hydraulic model are various land use designations together with the appropriate wastewater flow generation rates for each land use. The Master Plan currently shows the area where the MFRD is proposed as a Low Density Residential land use, which has a lower wastewater flow generation rate than the proposed Medium High Density Residential land use of MFRD. The higher wastewater flow generation rate for the proposed MFRD was evaluated using the hydraulic model to determine the potential effect of the proposed development on the City's wastewater system. For the purposes of this letter report, "Master Plan Model" refers to the hydraulic model corresponding to the Master Plan, and "MFRD Evaluation Model" refers to the same hydraulic model as slightly modified to reflect the proposed change from Low Density Residential to Medium High Density Residential land use for the subject site.

Figure 1 provides a "screen shot" exhibit showing the Master Plan Model output for buildout conditions. The sewers that are planned to convey wastewater flow for the subject site provide more than sufficient capacity to accommodate the planned wastewater flows, as illustrated by the maximum relative depths or depth-to-diameter (d/D) ratios shown for each sewer reach under peak wastewater flow conditions. The Wastewater Master Plan prescribes a maximum allowable d/D ratio of 0.82 for the analysis of existing sewers, and 0.65 for the sizing design of planned sewers.

Manhole 123.03 is the Master Plan Model node that would receive wastewater flow from the sewer service sub-area that includes the subject site. The Master Plan Model calculates an average daily wastewater flow for buildout conditions at Manhole 123.03 of 0.029021 million gallons per day (MGD). The planned wastewater flow generation rate for Low Density Residential land use areas is 0.000580 MGD per acre. The proposed MFRD is on a 1.62 acre parcel, but since sewer subareas include roads, the subject site affects 2.47 acres according to the criteria of the Master Plan. Currently this area accounts for 0.001433 MGD of the total flow calculated at Manhole 123.03 in the Master Plan Model. For the buildout condition of the model, already developed areas within the Fowler service area are subject to calibration (see Section 4.9.1 of the 2017 Wastewater Collection System Master Plan Report). Manhole 123.03 has a calibration factor of 0.813829. Applying this factor to the calculated 0.001433 MGD to the

Appendix G

Master Plan flow rate at Manhole 123.03 produces a 0.001166 flow rate for the buildout condition of the subject area.

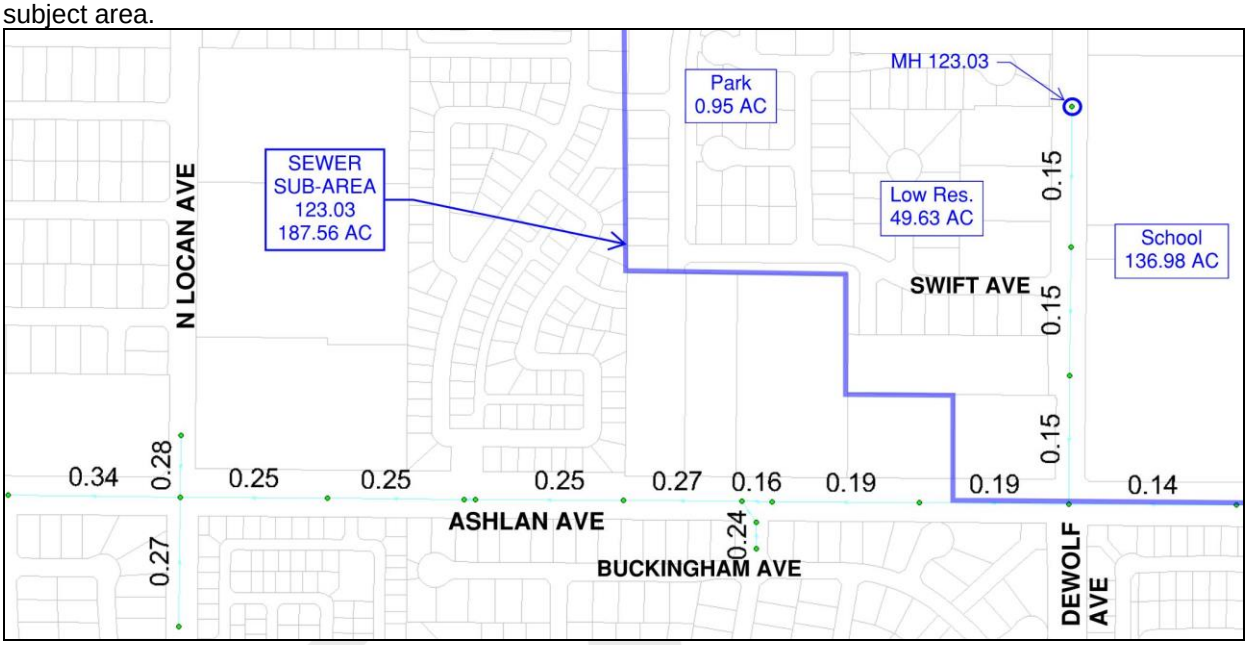


Figure 1: Master Plan Model for Buildout Conditions

The Master Plan provides criteria for selecting the wastewater flow generation rates for various land uses for future developments. For some residential land uses, a dwelling-unit-per-acre (du/acre) method is used. The Medium High Density Residential classification is used for developments between 7.10 and 15.00 du/acre. The proposed MFRD is 28 units situated on 2.47 acres. This results in an approximate value of 11.3 du/acre, which falls within the Medium High Density Residential range. Medium High Density Residential land uses are assigned a wastewater flow generation rate of 0.001459 MGD per acre.

High Density Residential (15-25 units/acare) = 0.002445 MGD/acre

The MFRD Evaluation Model reflects the elimination of 2.47 acres of Low Density Residential land use, and the addition of the same area of Medium High Residential land use, for the sewer service sub-area tributary to Manhole 123.03. This results in a net increase in planned tributary flow for Manhole 123.03 of 0.002438 MGD, which is an increase of approximately 8.4 percent compared to the buildout condition of the Master Plan Model. The resulting total average wastewater flow calculated for the MFRD Evaluation Model is 0.031467 MGD at Manhole 123.03.

Net increase for MH123.03 = 0.004035 MGD

Figure 2 provides a "screen shot" exhibit showing the MFRD Evaluation Model output for the buildout condition. The sewers that would convey wastewater flow for the proposed MFRD provide more than sufficient capacity to accommodate the calculated wastewater flows, as illustrated by the maximum d/D ratios shown for each sewer reach. The MFRD Evaluation Model calculates higher d/D ratios than the Master Plan Model, but even those higher d/D ratios are well below the maximum relative depth criteria prescribed by the Master Plan, for both existing and planned sewers.

The 12-inch sewer along DeWolf Avenue eventually leads to Clovis' connection to the regional Fresno-Clovis wastewater collection system at Fowler Avenue and Griffith Avenue. At that connection, the Master Plan Model estimates that the average wastewater flow discharged to the regional Fowler Trunk Sewer

will be 3.9785 MGD, and that the peak wastewater flow will be 6.0086 MGD. Similarly, the MFRD Model estimates an average wastewater flow of 3.9809 MGD and a peak wastewater flow of 6.0126 MGD.

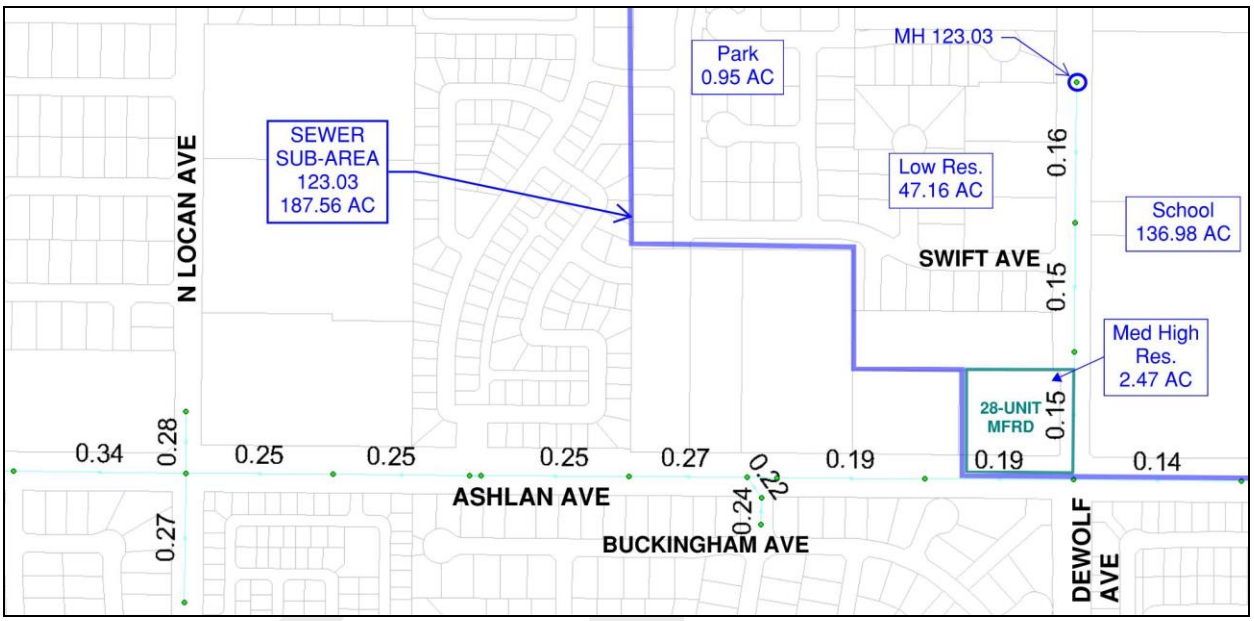


Figure 2: MFRD Model for Buildout Conditions

Prior to the study, the City of Clovis has approved multiple developments within the Fowler Service Area that exceed the sewer flowrates prescribed in the Master Plan. Two of these developments were addressed in the Blair, Church and Flynn sewer study for DRC 2021-00001 which involves TM 6349 and TM6260. Additionally, the City has made us aware of a third tract (TM6225) and have provided its net flow increase (0.012220 MGD).

Given their location, these other Tracts do not compete for sewer capacity with GPA 2023-002 until tributary flows meet at the intersection of Fowler Avenue and Ashlan Avenue. This 36-inch sewer has ample capacity for both developments with a max d/D of 0.40. The summary of flow increases and their impact on Clovis' connection to the regional Fresno-Clovis wastewater collection system at Fowler Avenue and Griffith Avenue can be seen in the following Tables 1 and 2.

	Average Daily flow Increase			
Development	28-Unit MFRD	TM6349	TM6260	TM6225
Sewer Flow (MGD)	0.002438	0.003401	0.002855	0.012220

0.004035

Table 1: Developments that Exceed Master Plan Sewer Flow

Scenario		Fowler Connection		
		Master Plan Config.	Master Plan Config. With Develpoments (Table 1)	Difference (increase)
Buildout	Avg Flow (MGD)	3.978453	3.999367	0.020914
	Peak Flow (MGD)	6.008600	6.040673	0.032073

Table 2: Impact on Fresno-Clovis Wastewater Connection on Fowler

In summary, our evaluation indicates that the existing and planned wastewater collection system facilities can accommodate the proposed change from Low Density Residential to Medium High Residential land use for the subject site. However, it should be noted that there may be competing interests for available wastewater flow capacity in the regional Fowler Trunk Sewer. With the exception of TM6349, TM6260 and TM6225 this analysis only evaluates the potential wastewater service implications of the proposed development in the context of the current Master Plan. It does not consider the effect of other potential allocations of available wastewater flow capacity, whether temporary or permanent, as may be allowed by the City for other proposed developments or other purposes.

If you have questions or comments, or if you require additional information, you are invited to contact me or Nathan Fastenau any time, as always. Many thanks, and…

Best Regards,

BLAIR, CHURCH & FLYNN CONSULTING ENGINEERS

Brad Kerner, PE
Project Manager

REGISTERED PROFESSIONAL ENGINEER
BRADLEY R. KERNER
No. 39,658
CIVIL
STATE OF CALIFORNIA

Date Signed: 5 September 2023

October 27, 2023:
The report miscalculates the proposed density as Medium High (7.1-15.0 units/acre) instead of High (15.1-25.0 units/acre). The adjustment to the net increase at MH123.03 should be 0.004035 MGD instead of 0.002438 MGD as indicated in the report. Given the d/D ratios in the area are well below the design criteria of the Master Plan, it is my determination that the miscalculation does not change the findings of the report of adequacy in the existing system to provide service to the site and the proposed density change.

Sean Smith, PE - Supervising Civil Engineer

TABLE 4-2
RESIDENTIAL LAND USE DENSITIES

LAND USE DESIGNATION	RANGE OF RESIDENTIAL DENSITIES (Dwelling Units Per Acre)		
	LOW	MAXIMUM	PROJECTED
Agricultural	0.00	0.05	0.05
Rural	0.00	0.50	0.50
Very Low Residential	0.60	2.00	2.00
Low Residential	2.10	4.00	3.20
Medium Residential	4.10	7.00	5.10
Medium High Residential	7.10	15.00	10.20
High Residential	15.10	25.00	17.10
Very High Residential	25.10	43.00	35.00
Mixed Use Village	15.10	43.00	31.90
Mixed Use Village (FA-4)	7.10	15.00	12.50
Mixed Use Village (FA-8)	15.10	25.00	20.90
Mixed Use Village (FA-11)	4.10	7.00	6.20
Mixed Use Business Campus	15.10	25.00	20.90
Mixed Use Business Campus (FA-5)	7.10	15.00	12.50
Mixed Use Business Campus (FA-10)	4.10	7.00	6.20
Mixed Use Business Campus (FA-14)	15.10	25.00	20.90

TABLE 4-4
DESIGN WASTEWATER FLOW GENERATION RATES

LAND USE DESIGNATION	PROJECTED FLOW GENERATION RATE (MGD = MILLION GALLONS PER DAY) ALL AREAS ARE IN GROSS ACRES
Agricultural	0.000009 MGD/ACRE
General Commercial	0.000910 MGD/ACRE
High Density Residential	0.002445 MGD/ACRE
Industrial	0.000650 MGD/ACRE
Low Density Residential (Unclassified)	0.000562 MGD/ACRE
Fowler Service Area	0.000580 MGD/ACRE
Herndon I Service Area	0.000523 MGD/ACRE
Herndon II Service Area	0.000567 MGD/ACRE
Sierra Service Area	0.000516 MGD/ACRE
Medium Density Residential (Unclassified)	0.000895 MGD/ACRE
Clovis Service Area	0.000545 MGD/ACRE
Fowler Service Area	0.000697 MGD/ACRE
Herndon I Service Area	0.000701 MGD/ACRE
Herndon II Service Area	0.000846 MGD/ACRE
Peach I Service Area	0.000797 MGD/ACRE
Peach II Service Area	0.000835 MGD/ACRE
Sierra Service Area	0.000619 MGD/ACRE
Medium High Density Residential	0.001459 MGD/ACRE
Mixed Use Business Campus	0.001189 MGD/ACRE
Mixed Use Business Campus (FA-5)	0.001031 MGD/ACRE
Mixed Use Business Campus (FA-10)	0.000859 MGD/ACRE
Mixed Use Business Campus (FA-14)	0.001066 MGD/ACRE
Mixed Use Village	0.001425 MGD/ACRE
Mixed Use Village (FA-4)	0.001083 MGD/ACRE
Mixed Use Village (FA-8)	0.001520 MGD/ACRE
Mixed Use Village (FA-11)	0.000753 MGD/ACRE
Neighborhood Commercial	0.000910 MGD/ACRE
Office	0.000780 MGD/ACRE
Open Space	0.000000 MGD/ACRE
Public/Quasi-Public Facilities	0.000780 MGD/ACRE
Park	0.000000 MGD/ACRE
Rural Residential	0.000088 MGD/ACRE
Elementary School	0.000006 MGD/STUDENT
Intermediate School	0.000014 MGD/STUDENT
High School	0.000016 MGD/STUDENT
Very High Density Residential	0.005005 MGD/ACRE
Very Low Density Residential	0.000351 MGD/ACRE
Water	0.000000 MGD/ACRE

MGD = Million Gallons Per Day, AC = Acre, STU = Student