APPENDIX A

NOTICE OF PREPARATION

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Notice of Preparation of a Draft Environmental Impact Report for the Tower District Specific Plan Update

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Date: May 7, 2025

To: Responsible Agencies, Interested Parties and Organizations

Subject: Notice of Preparation of an Environmental Impact Report for the Tower District Specific Plan Update

Lead Agency: City of Fresno

Contact: Sophia Pagoulatos
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Notice is Hereby Given: The City of Fresno (City) is the Lead Agency for the Tower District Specific Plan Update (proposed project) and has prepared a Notice of Preparation (NOP) of an Environmental Impact Report (EIR), pursuant to the California Environmental Quality Act (CEQA). The NOP is intended to solicit the views of the public, interested parties, and/or agencies as to the scope and content of the environmental information which is relevant to you or your agency's statutory responsibilities in connection with the proposed project. Specifically, the City is requesting that commenters identify environmental topics (and/or special studies) that they believe need to be explored in the forthcoming EIR, and to identify other relevant environmental issues related to the scope and content of the forthcoming EIR.

Project Title: Tower District Specific Plan Update

Project Location: The Tower District (District) is an approximately 1,869-acre area located near the center of the city of Fresno and establishes the Specific Plan Area for the proposed project. The Specific Plan Area is generally bound by East Shields Avenue to the north, North Blackstone Avenue to the east, State Route 180 to the south, and North Fruit Avenue and the Union Pacific Railroad tracks to the west. Figure 1, Regional Location and Local Vicinity Map, shows the boundaries of the city of Fresno in its regional context. To the north of Fresno is Madera County, to the northeast and adjacent to Fresno is the city of Clovis, and unincorporated land is located to the east, south, and west. Figure 2, Project Location, shows the location of the District within the city of Fresno.

Project Description: The proposed project aims to provide strategic and comprehensive guidance for making decisions regarding District's built environment and landscape character, land use and activities, public open space, community facilities and transportation. The City previously adopted the 1991 Tower District Specific Plan which emphasized conservation and historic preservation throughout the District and remains a focus of the proposed project. The proposed project would update the 1991 Specific Plan to respond to issues in the District that have remained, changed, and emerged over the ensuing decades.

The proposed project aims to provide a focused outline for implementing the broader goals of the City's General Plan in a manner that fits the needs of the District, as well as streamlining development within the Specific Plan Area by providing updated environmental analysis pursuant to CEQA requirements.

To achieve the goals of the proposed project and address the various needs of the District, the Tower District Specific Plan Update is divided into six key chapters, which are briefly described below:

1. **Introduction.** This chapter provides a brief history of the Tower District including its regional context, development patterns, community character, and resident demographics. It also provides an overview of the planning process for development of the Specific Plan Update and key issues identified during the community engagement process and establishes the guiding principles of the Specific Plan Update.

2. **Conservation and Historic Preservation.** This chapter provides an overview of historic resources within the District, and how future development should preserve and protect the historic and cultural identity of the District.

3. **Land Use.** This chapter considers existing land use patterns in the District and evaluates proposed focused land use changes. It sets parameters for allowable activities and the characteristics of future development within the District while providing a framework for how future development should meet the District's needs and aspirations.

4. **Parks and Open Spaces.** This chapter examines the state of parks and other public facilities such as trails, schools, and libraries within the District and how those spaces should be expanded and improved.

5. **Circulation.** This chapter evaluates the effectiveness of existing circulation infrastructure across multiple modes of transportation and how infrastructure should move people and goods throughout the District. This chapter focuses not only on circulation across the overall street network, but street designs themselves and guidelines for improving existing streets.

6. **Utilities.** As the District is largely a built-out environment, this chapter examines the current state of existing utility infrastructure.

Additionally, the proposed project would include updated Design Standards and Guidelines that are built upon historic development patterns, the Citywide Development Code, the original Design Guidelines, and the updated Specific Plan, in order to guide development projects to make positive contributions to the District's uniqueness, beauty, and walkability. The updated Design Standards and Guidelines are intended to preserve the essence of the District while facilitating compatible infill development and addressing the needs, considerations, and practices that have emerged since adoption of the original Design Guidelines.

Areas of Potential Environmental Effects: Potentially significant environmental impacts of the proposed project include, but may not be limited to, the following: Air Quality, Biological Resources, Cultural Resources, Energy, Greenhouse Gas Emissions, Noise, and Recreation.

Document Availability and Public Review Timeline: Due to the time limits mandated by State law, your response to the NOP must be sent no later than 30 days after publication of this notice. The review period for the NOP will be from May 7, 2025, to June 9, 2025. Copies of the NOP can be reviewed at the City of

Fresno, 2600 Fresno Street, Room 3043, Fresno, CA 93721. Electronic copies can also be accessed on the City's website at: www.fresno.gov/TDSP.

Public Scoping Meeting: The CEQA process encourages comments and questions from the public throughout the planning process. Pursuant to Section 15083 of the CEQA Guidelines, a Public Scoping Meeting will be held to solicit public comments on the scope and content of the EIR**.** A public scoping meeting for this project will be conducted on May 27, 2025 at 5:30 PM at the following address below:

Fresno City Hall
2600 Fresno Street
Room 2120
Fresno, CA 93721

Submitting Comments: Comments and suggestions as to the appropriate scope of analysis of the EIR are invited from all interested parties. Written comments or questions concerning the EIR for the proposed project should be directed to the Planning and Development Department at the following address by 5:00 PM on June 9, 2025.

Fresno City Hall, Attn: Sophia Pagoulatos

2600 Fresno Street, Room 3065

Fresno, CA 93721

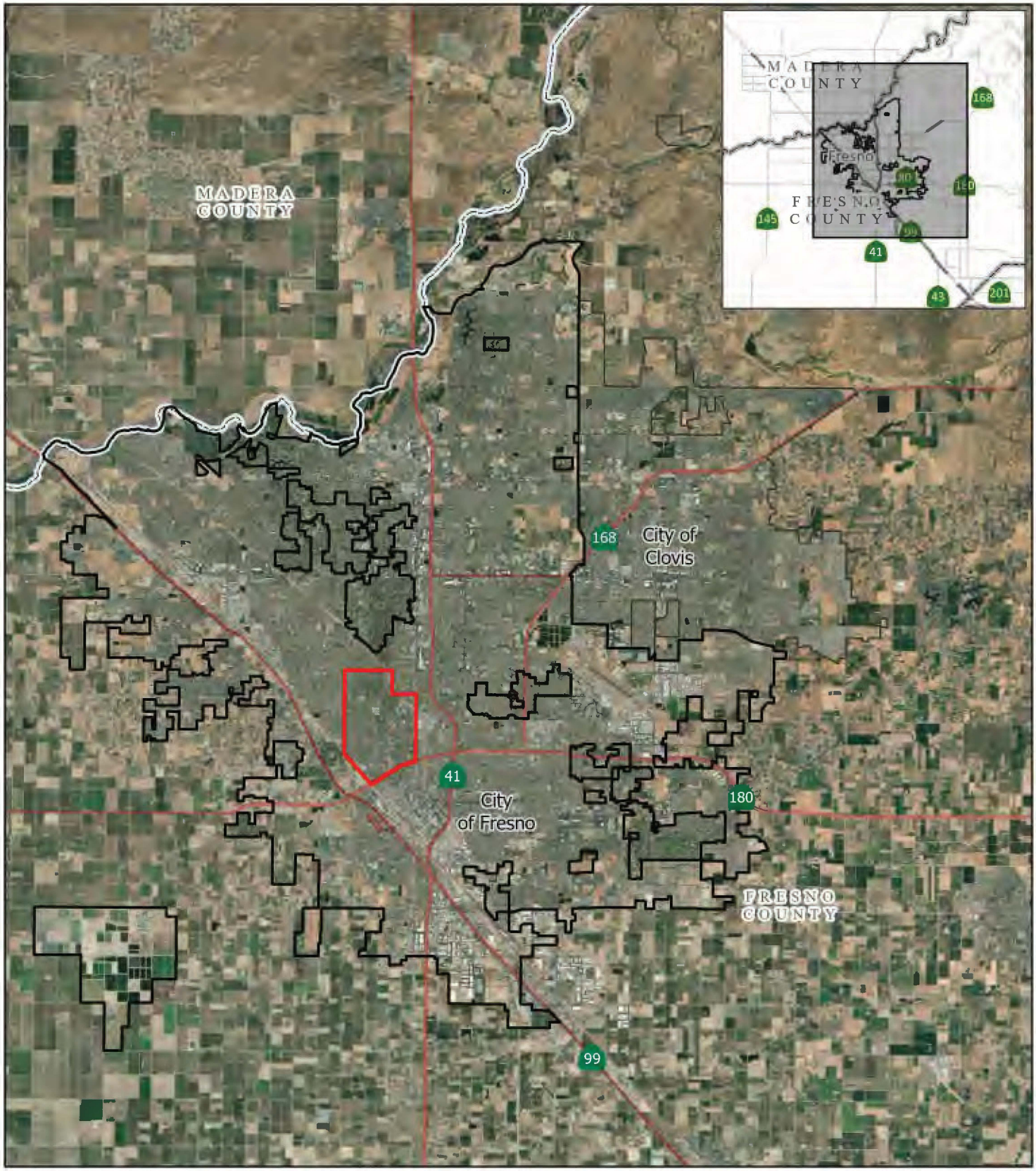
longrangeplanning@fresno.gov

Please include the commenter's full name, address, phone number and/or email so that we may contact you for clarification, if necessary.

Attachments:

Attachment 1: Figures 1 and 2.

Attachment 2: Proposed Land Use Updates.



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City of Fresno

Tower District Boundary

County Boundary

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FIGURE 1

Tower District Specific Plan Update

Regional Location and Local Vicinity

SOURCE: Esri World Imagery (2025)

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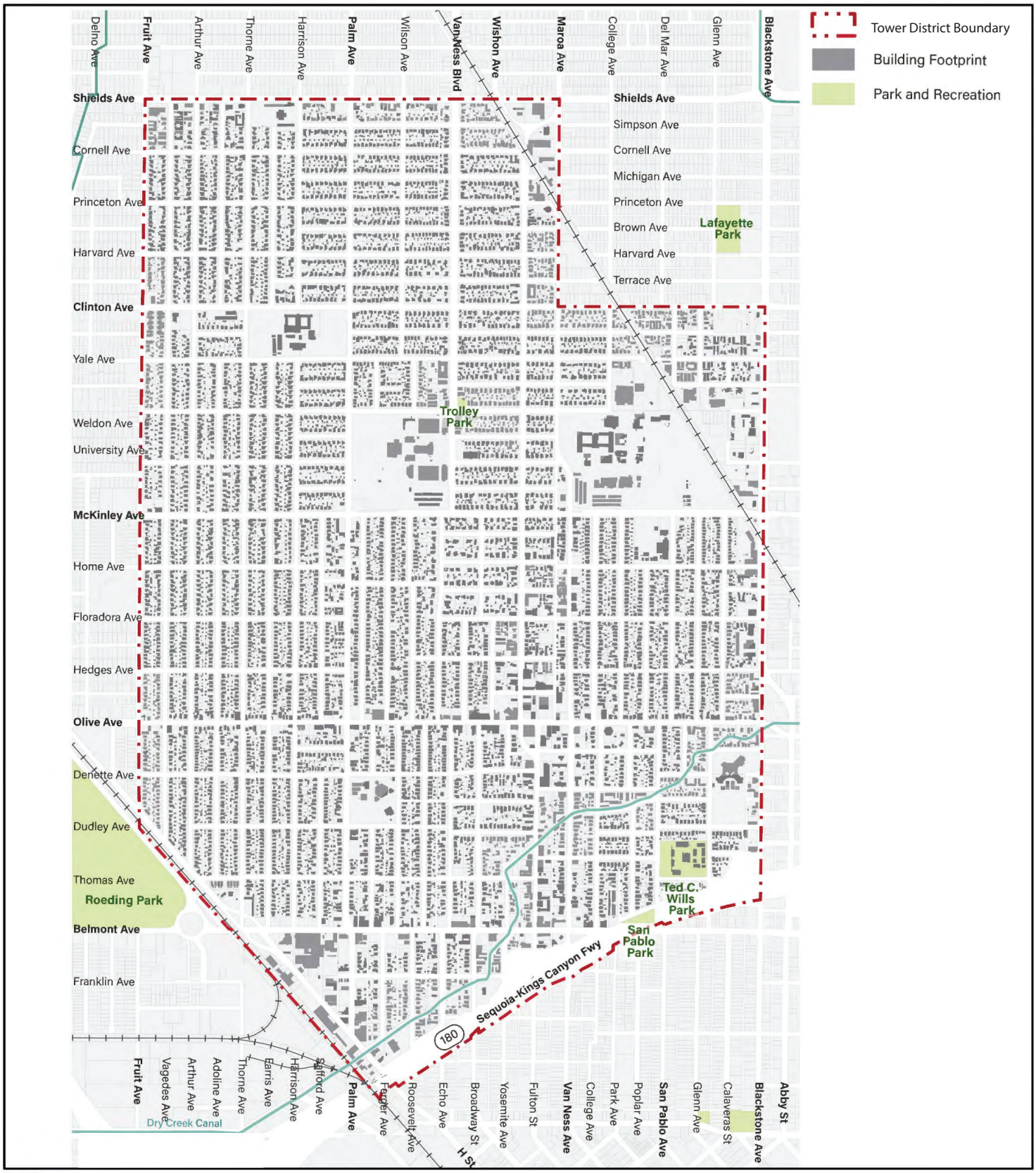

FIGURE 2

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SOURCE: City of Fresno

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Tower District Specific Plan Update

Project Location

ATTACHMENT 2: PROPOSED LAND USE UPDATES

Existing Land Uses

Existing land use patterns within the District are typical of an American streetcar suburb allowing residents to walk to their destination or to public transit stops. Because of this, commercial corridors developed along the paths where streetcar lines previously existed such as along Fulton, Olive, Belmont, Wishon, and Blackstone Avenues. While some commercial areas have retained their pedestrian-oriented design, many sites have been redeveloped over time to reflect an auto-oriented design.

The Fresno General Plan, adopted in 2014, includes land use patterns and policies that encourage infill development and revitalization of older neighborhoods. The following provides a description of the General Plan land use categories that are utilized in the Tower District Specific Plan:

Residential. Residential land use provides for a wide range of neighborhoods and housing types. Residential land uses also allow as permitted uses neighborhood-serving community facilities such as parks, churches, schools, family day care, libraries, community gardens, and farmers markets. Residential uses are designated by density as follows:

> ***Medium Low Density.*** The Medium Low Density designation is intended to provide for single-family detached housing with densities of 3.5 to 6 units per acre.
>
> ***Medium Density.*** Medium Density residential covers developments of 5 to 12 units per acre and is intended for areas with predominantly single-family residential development, but can also accommodate a mix of housing types, from small-lot starter homes, zero-lot-line developments, and duplexes, to townhouses. Much of the city's existing neighborhoods fall within this designation.
>
> ***Medium High.*** Medium High Density residential is intended for neighborhoods with a mix of single-family residences, townhomes, garden apartments, and multi-family units intended to support a fine-grain, pedestrian scale. This land use accommodates densities from 12 to 16 units per acre overall— individual parcels may have densities outside of that range so long as a master planned neighborhood has an average density that conforms.
>
> ***Urban Neighborhood.*** Urban Neighborhood residential covers densities from 16 to 30 units per acre, which will require multi-family dwellings but still allows for a mix of housing types including single-family houses. This land use is intended to provide for a compact community that includes community facilities, walkable access to parkland and commercial services, and supports efficient, frequent transit service. Urban Neighborhood is designated for targeted areas with complementary land uses adjacent.
>
> ***High Density.*** High Density residential is intended to accommodate attached homes, two- to four-plexes, and apartment buildings, supported by walkable access to frequent transit, retail and services, and community facilities such as parks and schools. High Density allows for 30 to 45 units per acre.

Commercial. Commercial land use designations allow a wide range of retail and service establishments intended to serve local and regional needs. Only mixed-use designations allow residential with a commercial component.

Main Street. Main Street commercial encourages a traditional "Main Street" character with active storefronts, outdoor seating, and pedestrian-oriented design. This designation promotes primarily one to two story retail uses, with moderate office and minimal multi-family as supportive uses. It also preserves small-scale, fine-grain character in neighborhoods where single-family residential and townhomes are predominant. The maximum Floor Area Ratio (FAR) is 1.0. A FAR is the ratio of a building's total floor area to the size of a site. An example is a 3-acre site with a 1.0 FAR could have up to approximately 130,000 square feet of floor area within a building (equivalent to 3 acres or one to one ratio).

Community. Community commercial is intended for pedestrian-oriented commercial development that primarily serves local needs such as convenience shopping and offices. Many of the city's current commercial districts fall into this designation. Specific uses allowed include medium-scale retail, office, civic and entertainment uses, supermarkets, drug stores and supporting uses. The maximum FAR is 1.0.

General. This designation is intended for a range of retail and service uses that are not appropriate in other areas because of higher volumes of vehicle traffic and potential adverse impacts on other uses. Development such as strip malls would fall into this designation. Examples of allowable uses include: building materials, storage facilities with active storefronts, equipment rental, wholesale businesses, and specialized retail not normally found in shopping centers. The maximum FAR is 2.0.

Employment.

Office. The Office land use designation is intended for administrative, financial, business, professional, medical, and public offices. This designation is mainly intended to apply to existing office uses on smaller lots, generally located on arterial roadways. This designation is also considered compatible with existing residential neighborhoods given the smaller level of noise and traffic generation than commercial uses. Retail uses would be limited to business services and food service and convenience goods for those who work in the area. The maximum FAR is 2.0.

Light Industrial. The Light Industrial designation accommodates a diverse range of light industrial uses, including limited manufacturing and processing, research and development, fabrication, utility equipment and service yards, wholesaling, warehousing, and distribution activities. Small-scale retail and ancillary office uses are also permitted. Light Industrial areas may serve as buffers between Heavy Industrial and other land uses and otherwise are generally located in areas with good transportation access, such as along railroads and freeways. The maximum FAR is 1.5.

Mixed Use. Mixed-use land use designations are based on commercial uses and require a residential component.

Neighborhood Mixed Use. The Neighborhood Mixed Use designation is similar to the Main Street and Community commercial land use designations; however, it allows a minimum of 50 percent residential uses, whereas the commercial districts do not allow residential uses. This designation provides for mixed-use districts of local-serving, pedestrian-oriented commercial development, such as convenience shopping and professional offices in two- to three-story buildings. Development is expected to include ground floor neighborhood retails uses and upper-level housing or offices, with a mix of small lot single family houses, townhomes, and multi-family dwelling units on side streets, in a horizontal or vertical mixed-use orientation. The built form will have a scale and character that is consistent with pedestrian-orientation, to attract and promote a walk-in clientele, with small lots

and frequent roadway and pedestrian connections permitting convenient access from residences to commercial space. Automobile-oriented uses are not permitted. Residential densities range between 12 and 16 units per acre and the maximum FAR is 1.5.

Corridor/Center Mixed Use. The Corridor/Center Mixed Use designation is higher intensity than Neighborhood Mixed Use, and is intended to allow for either horizontal or vertical mixed-use development in multiple story buildings along key circulation corridors in the city where height and density can be easily accommodated. Ground-floor retail and upper-floor residential or offices are the primary uses, with personal and business services and public and institutional space as supportive uses. Development will facilitate the transformation of existing transportation corridors into vibrant, highly walkable areas with broad, pedestrian-friendly sidewalks, trees, landscaping, and local-serving uses with new buildings that step down in relationship to the scale and character of adjacent neighborhoods. This designation will largely apply along arterial streets, at targeted locations between regional activity centers. Residential densities range between 16 and 30 units per acre with a minimum 40 percent residential uses and the maximum FAR is 1.5.

Open Space. These designations apply to open space areas that are not parks or trails, such as riparian corridors, the clear zone around Fresno-Yosemite International Airport, and the San Joaquin River bottom, which is primarily designated as open space even though it includes a limited number of existing homes. Within open space, there is a Multi-Use designation that is located along the San Joaquin River Corridor that allows parks, open space, bathrooms, launch areas for canoes, parking, and sand/gravel facilities.

Public Facilities. These designations apply to lands owned by public entities, including City Hall and other City buildings, county buildings, schools, colleges, the municipal airport and hospitals. They also include public facilities such as fire and police stations, City-operated recycling centers and sewage treatment facilities. In addition, these designations apply to public facilities, including neighborhood, community and regional parks, recreational centers, and golf courses. It also applies to multi-purpose trails that serve both regional and neighborhood level needs, some of which are paved while others, in particular those found along the San Joaquin River Bluff Environs, may be unpaved.

The existing land use designations in the District include a mix of residential, commercial, public institutions, and pockets of industrial uses. The District is generally surrounded by urban, built-up areas consisting of similar land uses to those found within the District, including a mix of residential, commercial, public institutions, and pockets of industrial uses. Additionally, Roeding Regional Park is located west of the District, immediately adjacent to the Union Pacific Railroad line and Golden State Boulevard.

Existing Zoning

Based on the City's Citywide Development Code Chapter of the Municipal Code (Chapter 15 of the Municipal Code), the Specific Plan Area contains the following zoning districts

- Residential Single-Family, Medium Density (RS-5)
- Residential Multi-Family, Medium High Density (RM-1)
- Residential Multi-Family, Urban Neighborhood (RM-2)
- Residential Multi-Family, High Density (RM-3)
- Commercial Main Street (CMS)
- Commercial Community (CC)

- Commercial General (CG)
- Office (O)
- Light Industrial (IL)
- Neighborhood Mixed-Use (NMX)
- Park and Recreation (PR)
- Public and Institutional (PI)

Planned Land Use Changes

The Specific Plan aims to retain the character of the District while promoting new investments. The proposed land use patterns and policies are designed to address a wide range of social, economic, and environmental challenges within the District. Further, the proposed changes are designed to help maintain and improve the community's desired character, provide diverse housing types at various affordability levels, promote commercial activity, maintain compatibility with industrial employment, promote recreation and education, and improve overall economic development and plan for future growth opportunities.

Diverse and Affordable Housing. The Specific Plan aims to create more multi-unit housing that has the potential to be more affordable for residents and provides more access to the local community.

Commercial Activity. The District contains merchants, restauranteurs, and cultural venues that are integral to community life and provide a distinct sense of place. The Specific Plan retains the existing Commercial Main Street (CMS) land use and zoning designation that requires ground-floor commercial uses in the heart of the District's commercial areas. However, the Apartment House (AH) Overlay zoning designation would allow multi-unit development without the ground-floor commercial requirements.

Industrial Employment and Compatibility. Light industrial uses are located along the southwest boundary of the Specific Plan Area. Some of these businesses have been in the neighborhood for many decades and provide employment to local Tower District residents.

The Specific Plan would implement land use changes that would maintain and enhance the character-defining elements associated with the Tower District while allowing for future growth. The Plan would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on Blackstone Avenue and Shields Avenue. This would allow for ground level commercial uses fronting public streets and sidewalks, while residential uses would be located above or behind. This would continue to promote the walkability of the District while allowing for greater residential development. Additionally, medium low density residential uses would be allowed at Terrace Gardens, Porter Tract, and Wilson Island to allow for the development of slightly denser housing where building mass can transition in scale to the adjacent single-family homes.

Development Capacity

The majority of the area within the Specific Plan is already developed and not expected to change. The Specific Plan would highlight underutilized sites as candidates for investment and restoration. Underutilized sites are generally located along the District's commercial corridors. Enlarging or redeveloping existing buildings would allow for buildings in poor condition or low economic value to be improved. Many factors impact potential for new development, such as location, size, access, density, floor area ratio, building heights, parking, and open space. Redeveloping underutilized sites would allow for decreased development costs while maintaining quality and community character. **Table 1** below

provides a summary of development capacity based on proposed land use designations under the proposed project.

Table 1 – Development Capacity by Proposed Land Use Designation – Vacant and Underutilized Sites

Existing Land Use Designation	*Vacant and Underutilized Land (acres)*	*Existing Units*	*Projected New Units (gross)*	*Projected New Units (net)*	*Existing Non-Residential Floor Area*	*Projected New Non-Residential Floor Area (gross)*	*Projected New Non-Residential Floor Area (net)*
Residential							
Residential Medium Low	0.0	-	-	-	0	-	-
Residential Medium Density	5.1	-	45	45	2,000	-	-
Residential Medium High	1.2	-	19	19	0	-	-
Residential Urban Neighborhood	0.3	-	8	8	0	-	-
Residential High Density	0.0	-	-	-	0	-	-
Mixed Use							
Neighborhood Mixed Use	6.8	0	437	437	46,672	119,006	72,334
Corridor/Center Mixed Use	8.8	9	659	650	55,808	191,446	135,638
Commercial							
Commercial Main Street	34.1	44	1,639	1,595	257,420	594,792	337,372
Commercial Community	0.9	0	-	-	6,274	24,306	18,032
Commercial General	0.0	0	-	-	0	-	-
Employment							
Employment Office	0.0	0	-	-	0	-	-
Employment Light Industrial	13.1	6	-	-6	138,558	456,143	317,585
Public Facilities	0.0	0	-	-	0	-	-
Total	**70.3**	**59**	**2,807**	**2,748**	**506,732**	**1,385,694**	**880,962**

Residential. Land uses allowing for residential growth within the Specific Plan Area include Residential Medium Low Density (RS-4), Residential Medium Density (RS-5), Residential Medium High Density (RM-1), Residential Urban Neighborhood (RM-2), and Residential High Density (RM-3), as well as Commercial Main Street (CMS), Neighborhood Mixed Use (NMX) and Corridor/Center Mixed Use (CMX).

Under current zoning within the District, residential development is estimated to have a capacity of 2,271 new housing units. Because this capacity takes into account the redevelopment of areas currently identified as underutilized sites, the net gain of residential units under the existing zoning capacity is 2,212 new residential units. The rezoning proposed under the specific plan would result in an increased capacity totaling 2,807 residential units, which would total a net increase of 2,748 residential units when existing units on underutilized sites are taken into account. The proposed designations would increase residential development capacity by an estimated 537 units compared with current zoning and land use designations. **Table 2** below shows a summary of residential development capacity within the District under the proposed project.

Table 2 – Residential Development Capacity-Underutilized Sites

Tower District Specific Plan Area	*Existing Units*	*Projected New Units (gross)*	*Projected New Units (net)*
Current Land Use Designations	59	2,271	2,212
Proposed Land Use Designations	59	2,807	2,748
Change	-	**537**	**537**

Non-Residential. The majority of commercial development within the District lies within the southern half of the Specific Plan Area with major development corridors along Van Ness Avenue, Fulton Street, Olive Avenue, and Belmont Avenue. Additional pockets of commercial development can be found throughout the Specific Plan Area including the Trolley Park area, along Maroa Avenue, the McKinley and Palm Avenue intersection, as well as on isolated parcels. Mixed Use corridors within the Specific Plan Area are located on the northern boundary along Shields Avenue as well as on the eastern boundary along Blackstone Avenue. Under current zoning, the District has an estimated capacity for 1,406,600 square feet of new non-residential floor area, which translates to just under 900,000 square feet of net new non-residential floor area when the loss of existing development on underutilized sites is accounted for. The proposed zoning would result in approximately 1,385,700 square feet of non-residential development, with a net increase of 881,000 square feet after existing development is accounted for. The proposed designations would decrease non-residential development capacity by an estimated 18,800 square feet compared with current land use designations. **Table 3** below provides a summary of the non-residential development capacity within the District under the proposed project.

Table 3 – Non-Residential Development Capacity-Underutilized Sites

Tower District Specific Plan Area	*Existing Non-Residential Floor Area*	*Projected New Non-Residential Floor Area (gross)*	*Projected New Non-Residential Floor Area (net)*
Current Land Use Designations	506,732	1,406,600	899,800
Proposed Land Use Designations	506,732	1,385,700	881,000
Change	-	**-20,900**	**-18,800**

Anticipated Discretionary Actions for Adoption of the Tower District Specific Plan Update

Adoption of the Tower District Specific Plan Update is proposed to be enacted by resolution of the Fresno City Council. The following discretionary actions are anticipated:

- Certification of the TDSP EIR and adoption of the Mitigation Monitoring and Reporting Program
- Repeal of 1991 Tower District Specific Plan
- Specific Plan Amendment Adoption of the Tower District Specific Plan
- Amendment of the General Plan Land Use Map to incorporate the land use changes of the Specific Plan
- Amendment of the Tower District Design Guidelines
- Rezone of parcels requiring a zone change for consistency with land use changes
- Amendment of the Development Code

APPENDIX B

NOTICE OF PREPARATION COMMENTS

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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

May 15, 2025

Sophia Pagoulatos
City of Fresno
Planning and Development Department
2600 Fresno Street, Room 3043
Fresno, CA, 93721

Project: Notice of Preparation of a Draft Environmental Impact Report for the Tower District Specific Plan Update

District CEQA Reference No: 20250532

Dear Ms. Pagoulatos:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the City of Fresno (City) for the Tower District Specific Plan Update. Per the NOP, the project consists of providing strategic and comprehensive guidance for making decisions regarding built environment and landscape character, land use activities, public open space, community facilities and transportation (Project). The Project area is located East Shields Avenue to the north, North Blackstone Avenue to the east, State Route 180 to the south, North Fruit Avenue and Union Pacific Railroad tracks to the west, in Fresno, CA. The Project lies within one of the communities in the state selected by the California Air Resources Board (CARB) for investment of additional air quality resources and attention under Assembly Bill (AB) 617 (Garcia) in an effort to reduce air pollution exposure in impacted disadvantaged communities.

The District offers the following comments at this time regarding the Project:

1) Land Use Planning

Nearly all development projects within the San Joaquin Valley Air Basin, from the Tower District Specific Plan Update to individual projects have the potential to generate air pollutants, making it more difficult to attain state and federal ambient air quality standards. Land use decisions are critical to improving air quality within the San Joaquin Valley Air Basin because land use patterns greatly influence transportation needs, and motor vehicle emissions are the largest source of air pollution in the Valley. Land use decisions and project design elements such as preventing urban sprawl, encouraging mix-use development, and project design elements that reduce vehicle miles traveled (VMT) have proven to be beneficial for

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air quality. The District recommends that the DEIR incorporate strategies that reduce VMTs and require the cleanest available heavy duty trucks, vehicles, and off-road equipment, including zero and near-zero technologies. VMTs can be reduced through encouragement of mix-use development, walkable communities, etc. Additional design element options can be found at: https://ww2.valleyair.org/media/ob0pweru/clean-air-measures.pdf

In addition, the District recommends that the DEIR incorporate strategies that will advance implementation of the best practices listed in Tables 5 and 6 of California Air Resource Board's (CARB's) Freight Handbook Concept Paper, to the extent feasible. This document compiles best practices designed to address air pollution impacts as "practices" which may apply to the siting, design, construction, and operation of freight facilities to minimize health impacts on nearby communities. The concept paper is available at: https://ww2.arb.ca.gov/sites/default/files/2020-03/2019.12.12%20-%20Concept%20Paper%20for%20the%20Freight%20Handbook_1.pdf

2) Project Siting

The Tower District Specific Plan Update is the blueprint for future growth and provides guidance for the community's development. Without appropriate mitigation and associated policy, future development projects within the Tower District Specific Plan Update may contribute to negative impacts on air quality due to increased traffic and ongoing operational emissions. Appropriate project siting helps ensure there is adequate distance between differing land uses, which can prevent or reduce localized and cumulative air pollution impacts from business operations that are in close proximity to receptors (e.g., residences, schools, health care facilities, etc.). Tower District Specific Plan Update siting-related goals, policies, and objectives should include measures and concepts outlined in the following resources:

- CARB's Air Quality and Land Use Handbook: A Community Health Perspective. The document includes tables with recommended buffer distances associated with various types of common sources (e.g., distribution centers, chrome platers, gasoline dispensing facilities, etc.), and can be found at: https://ww2.arb.ca.gov/our-work/programs/resource-center/strategy-development/land-use-resources

- CARB's Freight Handbook Concept Paper: This document compiles best practices designed to address air pollution impacts, which may apply to the siting, design, construction, and operation of freight facilities to minimize health impacts on nearby communities, and can be found at: https://ww2.arb.ca.gov/sites/default/files/2020-03/2019.12.12%20-%20Concept%20Paper%20for%20the%20Freight%20Handbook_1.pdf

3) Assembly Bill 617

AB 617 requires CARB and air districts to develop and implement Community Emission Reduction Programs (CERPs) in an effort to reduce air pollution exposure in impacted disadvantaged communities, like those in which the Project is located. The South Central Fresno AB 617 community is one of the statewide communities selected by CARB for development and implementation of a CERP.

Following extensive community engagement and collaboration with the Community Steering Committee, the CERP for the South Central Fresno Community was adopted by the District's Governing Board in September 2019 and by CARB in February 2020,

During the development of the CERP, the Community Steering Committee expressed concerns regarding the proximity of emission sources to nearby sensitive receptors like schools, homes, day care centers, and hospitals, and the potential future industrial development within the community that may exacerbate the cumulative exposure burden for community residents. The Community Steering Committee also expressed the desire for more meaningful avenues of engagement surrounding the land-use decisions in the area. As these issues can most effectively be addressed through strong partnerships between community members and local land-use agencies. Furthermore, the District recommends the City assess the emission reductions measures and strategies included in the CERP and address them in the DEIR, as appropriate, to align the City work with the air pollution and exposure reduction strategies and measures outlined in the CERP.

For more information regarding the CERP approved for South Central Fresno, please visit the District's website at:
https://community.valleyair.org/selected-communities/south-central-fresno

4) Project Related Emissions

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM2.5) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 standards.

As such, the District recommends that the DEIR stipulate that future development projects within the Tower District Specific Plan Update identify and characterize project construction and operational air emissions. The District recommends the air emissions be compared to the District significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. The District recommends that

future projects be mitigated to the extent feasible, and that future projects with air emissions above the aforementioned thresholds be mitigated to below these thresholds.

The District understands that the Tower District Specific Plan Update is a specific plan-level project where future individual project-specific data may not be available at this time. As such, the DEIR should include a discussion of policies, which when implemented, will require assessment and characterization of project-level emissions, and subsequently require mitigation of air quality impacts to the extent feasible at the individual project-specific level. Environmental reviews of potential impacts on air quality should incorporate the following items:

4a) Construction Emissions

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, future development projects should utilize the cleanest available off-road construction equipment.

4b) Operational Emissions

Operational (ongoing) air emissions from mobile sources and stationary sources should be analyzed separately. For reference, the District's significance thresholds are identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf.

Recommended Mitigation Measure: At a minimum, project related impacts on air quality should be reduced to levels below the District's significance thresholds through incorporation of design elements such as the use of cleaner Heavy Heavy-Duty (HHD) trucks and vehicles, measures that reduce Vehicle Miles Traveled (VMTs), and measures that increase energy efficiency. More information on transportation mitigation measures can be found at: https://ww2.valleyair.org/media/ob0pweru/clean-air-measures.pdf

4c) Recommended Model for Quantifying Air Emissions

Future development project-related criteria pollutant emissions from construction and operational sources should be identified and quantified. Emissions analysis should be performed using the California Emission Estimator Model (CalEEMod), which uses the most recent CARB-approved version of relevant emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com.

5) Health Risk Screening/Assessment

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

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

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

Prioritization (Screening Health Risk Assessment):
A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology. Please contact the District for assistance with performing a Prioritization analysis.

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

Health Risk Assessment:
Prior to performing an HRA, it is strongly recommended that land use agencies/ project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the health impacts would exceed the District's established risk thresholds, which can be found here: https://ww2.valleyair.org/permitting/ceqa/.

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

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

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

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

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

Recommended Measure: Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors to prevent the creation of a significant health risk in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at https://ww2.arb.ca.gov/our-work/programs/resource-center/strategy-development/land-use-resources.

6) Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for any future development projects that may be approved under implementation of the Tower District Specific Plan Update with emissions that exceed 100 pounds per day of any pollutant.

An AAQA uses air dispersion modeling to determine if emission increase from a project will cause or contribute to a violation of State or National Ambien Air Quality Standards. An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District's website: https://ww2.valleyair.org/permitting/ceqa/.

7) Voluntary Emission Reduction Agreement

Future development projects within the Tower District Specific Plan Update could have a significant impact on air quality. The District recommends the DEIR include a feasibility discussion on implementing a Voluntary Emission Reduction Agreement (VERA) as a mitigation measure for future development projects that may be approved under implementation of the Project that are determined to exceed the District's CEQA significance thresholds.

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

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

8) Allowed Uses Not Requiring Project-Specific Discretionary Approval

In the event that the City determines that a project be approved as an allowed use not requiring a project-specific discretionary approval, the District recommends the DEIR include language requiring such projects to prepare a technical assessment, in consultation with the District, to determine if additional analysis and/or mitigation is required.

9) Truck Routing

Truck routing involves the assessment of which roads Heavy Heavy-Duty (HHD) trucks take to and from their destination, and the emissions impact that the HHD trucks may have on residential communities and sensitive receptors.

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

10) Cleanest Available Heavy-Duty Trucks

The San Joaquin Valley will not be able to attain stringent health-based federal air quality standards without significant reductions in emissions from HHD trucks, the single largest source of NOx emissions in the San Joaquin Valley. Accordingly, to meet federal air quality attainment standards, the District's ozone and particulate matter attainment plans rely on a significant and rapid transition of HHD fleets to zero or near-zero emissions technologies.

For future development projects, the District recommends that the following measures be considered by the City to reduce Project-related operational emissions:

- *Recommended Measure*: Fleets associated with operational activities utilize the cleanest available HHD trucks, including zero and near-zero technologies.

- *Recommended Measure*: All on-site service equipment (cargo handling, yard hostlers, forklifts, pallet jacks, etc.) utilize zero-emissions technologies.

11) Reduce Idling of Heavy-Duty Trucks

The goal of this strategy is to limit the potential for localized PM2.5 and toxic air contaminant impacts associated with the idling of Heavy-Duty trucks. The diesel exhaust from idling has the potential to impose significant adverse health and environmental impacts.

If future development projects are expected to result in HHD truck trips, the District recommends the DEIR include measures to ensure compliance of the state anti-idling regulation (13 CCR § 2485 and 13 CCR § 2480) and discuss the importance of limiting the amount of idling, especially near sensitive receptors.

12) Electric On-Site Off-Road and On-Road Equipment

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

13) Under-fired Charbroilers

Future development projects may have the potential to include restaurants with under-fired charbroilers. Such charbroilers may pose the potential for immediate health risk, particularly when located in densely populated areas or near sensitive receptors.

Since the cooking of meat can release carcinogenic PM2.5 species, such as polycyclic aromatic hydrocarbons, controlling emissions from new under-fired charbroilers will have a substantial positive impact on public health. The air quality impacts on neighborhoods near restaurants with under-fired charbroilers can be significant on days when meteorological conditions are stable, when dispersion is limited and emissions are trapped near the surface within the surrounding neighborhoods. This potential for neighborhood-level concentration of emissions during evening or multi-day stagnation events raises air quality concerns.

Furthermore, reducing commercial charbroiling emissions is essential to achieving attainment of multiple federal PM2.5 standards. Therefore, the District recommends that the DEIR include a measure requiring the assessment and potential installation, as technologically feasible, of particulate matter emission control systems for new large restaurants operating under-fired charbroilers.

The District is available to assist the City and project proponents with this assessment. Additionally, the District is currently offering substantial incentive funding that covers the full cost of purchasing, installing, and maintaining the system during a demonstration period covering two years of operation. Please contact the District at (559) 230-5800 or technology@valleyair.org for more information, or visit: https://ww2.valleyair.org/grants/restaurant-charbroiler-technology-partnership/

14) Vegetative Barriers and Urban Greening

For future development projects within the Project area, and at strategic locations throughout the Project area in general, the District suggests the City consider incorporating vegetative barriers and urban greening as a measure to further reduce air pollution exposure on sensitive receptors (e.g., residences, schools, healthcare facilities).

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

15) Clean Lawn and Garden Equipment in the Community

If future development projects consists of residential and commercial development, gas-powered residential and commercial lawn and garden equipment have the potential to result in an increase of NOx and PM2.5 emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at: https://ww2.valleyair.org/grants/clean-green-yard-machines-residential/ and https://ww2.valleyair.org/grants/zero-emission-landscaping-equipment-voucher-program/.

16) On-Site Solar Deployment

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

17) Nuisance Odors

While offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among the public and often resulting in citizen complaints.

The City should consider all available pertinent information to determine if future development projects could have a significant impact related to nuisance odors. Nuisance odors may be assessed qualitatively taking into consideration the

proposed business or industry type and its potential to create odors, as well as proximity to off-site receptors that potentially would be exposed to objectionable odors. The intensity of an odor source's operations and its proximity to receptors influences the potential significance of malodorous emissions. Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact.

According to the District Guidance for Assessing and Mitigating air Quality Impacts (GAMAQI), a significant odor impact is defined as more than one confirmed complaint per year averaged over a three-year period, or three unconfirmed complaints per year averaged over a three-year period. An unconfirmed complaint means that either the odor or air contaminant release could not be detected, or the source of the odor could not be determined.

18) District Rules and Regulations

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

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: https://ww2.valleyair.org/rules-and-planning/current-district-rules-and-regulations. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

18a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

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

Future development projects may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, project proponents shall obtain an ATC permit from the District for equipment/activities subject to District permitting requirements.

Recommended Mitigation Measure: For projects subject to permitting by the San Joaquin Valley Air Pollution Control District, demonstration of compliance with District Rule 2201 (obtain ATC permit from the District) shall be provided to the City before issuance of the first building permit.

For further information or assistance, project proponents may contact the District's SBA Office at (559) 230-5888.

18b) District Rule 9510 - Indirect Source Review (ISR)

Accordingly, future development projects within the Tower District Specific Plan Update may be subject to District Rule 9510 if upon full buildout, the project would equal or exceed any of the following applicability thresholds, depending on the type of development and public agency approval mechanism:

Table 1: ISR Applicability Thresholds

Development Type	Discretionary Approval Threshold	Ministerial Approval / Allowed Use / By Right Thresholds
Residential	50 dwelling units	250 dwelling units
Commercial	2,000 square feet	10,000 square feet
Light Industrial	25,000 square feet	125,000 square feet
Heavy Industrial	100,000 square feet	500,000 square feet
Medical Office	20,000 square feet	100,000 square feet
General Office	39,000 square feet	195,000 square feet
Educational Office	9,000 square feet	45,000 square feet
Government	10,00 square feet	50,000 square feet
Recreational	20,000 square feet	100,000 square feet
Other	9,000 square feet	45,000 square feet

District Rule 9510 also applies to any transportation or transit development projects where construction exhaust emissions equal or exceed two tons of NOx or two tons of PM.
The purpose of District Rule 9510 is to reduce the growth in both NOx and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The Rule requires

developers to mitigate their NOx and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

In the case the individual development project is subject to District Rule 9510, per Section 5.0 of the rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency so that proper mitigation and clean air design under ISR can be incorporated into the public agency's analysis.

Information about how to comply with District Rule 9510 can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview

The AIA application form can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/forms-and-applications/

District staff is available to provide assistance with determining if future development projects will be subject to Rule 9510, and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

18c) District Rule 9410 (Employer Based Trip Reduction)

Future development projects may be subject to District Rule 9410 (Employer Based Trip Reduction) if the project would result in employment of 100 or more "eligible" employees. District Rule 9410 requires employers with 100 or more "eligible" employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees.

Information about District Rule 9410 can be found online at: https://ww2.valleyair.org/compliance/rule-9410-employer-based-trip-reduction/.

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

18d) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)

Future development projects may be subject to District Rule 4002 since the Project will include demolition, renovation, and removal of existing structures. To protect the public from uncontrolled emissions of asbestos, this rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Any asbestos present must be handled in accordance with established work practice standards and disposal requirements.

Information on how to comply with District Rule 4002 can be found online at: https://ww2.valleyair.org/compliance/demolition-renovation/.

18e) District Rule 4601 (Architectural Coatings)

Future development projects may be subject to District Rule 4601 if it may utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at: https://ww2.valleyair.org/media/tkgjeusd/rule-4601.pdf

18f) District Regulation VIII (Fugitive PM10 Prohibitions)

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

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

The application for both the Construction Notification and Dust Control Plan can be found online at: https://ww2.valleyair.org/media/fm3jrbsq/dcp-form.docx

Information about District Regulation VIII can be found online at: https://ww2.valleyair.org/dustcontrol

18g) Other District Rules and Regulations

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

19) Future Projects / Land Use Agency Referral Documents

Future development projects may require an environmental review and air emissions mitigation. A project's referral documents and environmental review documents provided to the District for review should include a project summary, the land use designation, project size, air emissions quantifications and impacts, and proximity to sensitive receptors and existing emission sources, and air emissions mitigation measures. For reference and guidance, more information can be found in the District's Guidance for Assessing and Mitigating Air Quality Impacts at: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf

20) District Comment Letter

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

If you have any questions or require further information, please contact Eric McLaughlin by e-mail at eric.mclaughlin@valleyair.org or by phone at (559) 230-5808.

Sincerely,



For: Mark Montelongo
Director of Policy and Government Affairs

California Department of Transportation

DISTRICT 6 OFFICE
1352 WEST OLIVE AVENUE | P.O. BOX 12616 | FRESNO, CA 93778-2616
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May 16, 2025

FRE-180-57.58
Notice of Preparation -Tower District Specific Plan Update EIR
GTS #: https://ld-igr-gts.dot.ca.gov/district/6/report/36453

SENT VIA EMAIL

Sophia Pagoulatos
Planning Manager
City of Fresno – Planning and Development Department
2600 Fresno Street, Room 3043
Fresno, CA 93721
Sophia.Pagoulatos@fresno.gov

Dear Mx. Pagoulatos,

The California Department of Transportation (Caltrans), District 6 appreciates the opportunity to review and provide comments on the Notice of Preparation (NOP) for the Environmental Impact Report (EIR) for the Tower District Specific Plan Update. Our comments are submitted pursuant to the California Environmental Quality Act (CEQA) and in our role as a responsible agency with jurisdiction over the State Highway System (SHS), particularly State Route 180 (SR-180), which lies within the Specific Plan boundaries.

Vehicle Miles Traveled (VMT) Analysis:

The proposed Specific Plan Update includes modifications to land use, circulation, and development intensity that may influence regional travel behavior and vehicle miles traveled. While we acknowledge that the City of Fresno has adopted its own VMT thresholds under CEQA Guidelines §15064.3, Caltrans requests the following be incorporated into the scope of the EIR.

Quantitative VMT Analysis:

Please evaluate potential project-level and cumulative VMT impacts using the City's adopted thresholds and methodologies. Caltrans recommends use of a regional travel demand model or other approved tool to estimate VMT generation.

Screening Criteria and Applicability:

Clarify whether screening criteria (such as proximity to transit priority areas) will be applied and whether certain project components will be screened out. Please ensure screening is consistent with applicable guidance.

Mitigation Measures:

Where the project is determined to exceed applicable thresholds, identify feasible mitigation strategies that will reduce VMT, such as transportation demand management (TDM) programs, land use alternatives, or multimodal improvements.

Consistency with Caltrans Goals:

Please address consistency with statewide transportation and climate goals, including those outlined in the California Transportation Plan (CTP) 2050 and Climate Action Plan for Transportation Infrastructure (CAPTI).

Queuing and Operational Analysis:

While CEQA focuses on VMT as the primary metric of transportation impact, operational concerns such as queuing may still be relevant from a safety and access standpoint:

Queuing Impacts on State Facilities:

Evaluate existing and projected queuing conditions at intersections and freeway ramps in proximity to SR-180 and major arterials such as Blackstone Avenue. Design changes or added demand may result in queue spillback onto state highways or affect freeway operations.

Signal Timing and Circulation Design:

Include analysis of potential changes to intersection control, signal timing, or capacity that may influence traffic operations near or adjacent to Caltrans right-of-way.

Coordination with Caltrans:

We request early and ongoing coordination to review assumptions, modeling tools, and proposed mitigation measures affecting the SHS.

Conclusion:

We thank you for your consideration of these comments and look forward to working with the City of Fresno to ensure a thorough and comprehensive environmental analysis. Please contact [insert Caltrans contact person] at [phone number] or [email address] with any questions or to coordinate further discussions.

If you have any other questions, please call or email: Keyomi Jones, Associate Transportation Planner at (559) 981-7284 or keyomi.jones@dot.ca.gov.

Sincerely,



David Padilla, Branch Chief
Local Development Review
(559) 905-9371

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

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May 23, 2025

Sophia Pagoulatos
City of Fresno
2600 Fresno Street
Room 3040
Fresno CA 93721

Re: 2025050309 Tower District Specific Plan Update Project, Fresno County

Dear Ms. Pagoulatos:

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

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

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

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

AB 52

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

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

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

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

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

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

SB 18

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

Some of SB 18's provisions include:

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

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

NAHC Recommendations for Cultural Resources Assessments

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

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@NAHC.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

cc: State Clearinghouse

From:	Aldi Ramirez
To:	LongRangePlanning
Cc:	Aldi Ramirez
Subject:	Public Comment - Notice of Preparation of a Draft Environmental Impact Report for the Tower District Specific Plan Update
Date:	Friday, June 6, 2025 9:18:42 AM
Attachments:	sff-new-email-sig-logo-170x69_f7aed356-92fe-4be5-a28b-9c3c9125af9a.png

External Email: Use caution with links and attachments

Attn: Sophia Pagoulatos

Thank you for the opportunity to comment on the Tower District Plan. While Producers Dairy appreciates the City's efforts to improve bicycle infrastructure and support active transportation, we are concerned about how different planning efforts are aligning—particularly the proposal to add bike lanes on H Street. H Street is a designated truck route, and it is important that this function is preserved to support local businesses and industrial activities. Adding bike lanes to H Street could create safety challenges for both truck drivers and bicyclists. At the same time, Palm Avenue already has existing bike lanes that provide important connectivity for cyclists, so directing additional resources to bike lanes on H Street —where truck traffic is heavy—could raise significant safety concerns due to frequent truck ingress and egress along the corridor. This situation suggests there may be a need for additional review and coordination between the Tower District Plan, the Active Transportation Plan, and the Truck ReRoute Study.

SHEHADEY Family Foods, LLC

Aldi Ramirez | **Chief of Staff**
Shehadey Enterprise Solutions
phone: 559.457.4697 | mobile: 559.807.0372
250 E Belmont Ave, Fresno, CA 93701

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Fresno Metropolitan Flood Control District
Capturing Stormwater since 1956

File 310. "EE", "RR2", "UU2"
420.209

June 9, 2025

Ms. Sophia Pagoulatos, Planning Manager
City of Fresno
2600 Fresno Street, Room 3065
Fresno, CA 93721

Dear Sophia,

Fresno Metropolitan Flood Control District (FMFCD)
Comments on the Notice of Preparation of an
Environmental Impact Report for the Tower District Specific Plan Update
Drainage Areas "EE", "RR2", "UU2"

The Fresno Metropolitan Flood Control District (FMFCD) has adopted storm drainage Master Plan systems for the areas located within the Tower District Specific Plan Update (Plan Area). These Master Plan systems are based on the previously adopted General and Specific Plan land uses.

For areas that have existing drainage facilities and propose changes to land uses that generate more runoff than originally planned, some type of mitigation to accommodate the increased flow such as parallel pipes and/or on-site retention may be required. FMFCD has identified properties within the Plan Area that may require some form of mitigation as noted on attached Figure 3.2 from the subject Tower District Specific Plan Update.

The properties may either make improvements to the existing pipeline system to provide additional capacity or may use some type of permanent peak reducing facility in order to eliminate adverse impacts on the existing system. Implementation of the mitigation measures may be deferred until the time of development. Should the properties choose to construct a permanent peak reducing facility, this system would be required to reduce runoff from a ten-year storm produced by the increased land use and release a two-year discharge which has been designed into FMFCD's existing system. The developer will be required to submit improvement plans to the District for review and approval showing the proposed method of mitigation prior to implementation.

5469 E. Olive Avenue • Fresno, CA 93727 • (559) 456-3292 • FAX (559) 456-3194
www.fresnofloodcontrol.org

Drainage fees shall be collected pursuant to the Drainage Fee Ordinance prior to approval of final maps and/or issuance of building permits at the rates in effect at the time of such approval. Instances when the proposed density is reduced and the District's Master Plan facilities have been constructed will be subject to the higher rate anticipated to be collected when the facilities were installed. Should land use densities of existing areas be increased, the property would be subject to drainage fee commensurate to the higher density and paid to offset the effects of the increased land use. Please contact the District for a final fee obligation prior to issuance of any construction permits.

FMFCD offers the following comments specific to the review of the Plan Area (the individual page is included and the section or sentence has been highlighted for your reference):

1. Page 100, Local Streets and Alleys – In reference to "Green alleys", FMFCD recommends that the City incorporate policies addressing drainage capacity and structural elevation in alleys, particularly where upstream runoff could threaten adjacent property back yards and/or building structures. Alley grading shall be designed such that there are not adverse impacts to the passage of major storm flow. Additionally, development of alleys shall include surface flowage easements or covenants for any portions of the developing area that cannot convey storm water to public right-of-way without crossing private property.

   FMFCD does not recommend the use of permeable pavers and pavements as Low Impact Development (LID) strategies, as these conflict with FMFCD's requirements for positive drainage to the street. LID features often necessitate ongoing monitoring and maintenance, and they may become ineffective over time due to clogging.

The City of Fresno, FMFCD, the County of Fresno, the City of Clovis, and the California State University, Fresno are currently covered as Co-Permittees for Municipal Separate Storm Sewer System (MS4) discharges through National Pollutant Discharge Elimination System (NPDES) General Order No. R5-2016-0040 and NPDES Permit No. CAS0085324 (Storm Water Permit) effective May 17, 2018. The previous Storm Water Permit adopted on May 31, 2013 required the adoption of Stormwater Quality Management Program (SWQMP) that describes the Storm Water Permit implementation actions and Co-Permittee responsibilities. That SWQMP was approved by the Central Valley Regional Water Quality Control Board on April 17, 2015 and is effective until adoption of a new SWQMP, which is anticipated within the next two years.

The Storm Water Permit requires that Co-Permittees update their CEQA process to incorporate procedures for considering potential stormwater quality impacts when preparing and reviewing CEQA documents. This requirement is found on Provision D.14 of the 2013 Storm Water Permit and in Section 7: Planning and Land Development Program – PLD 3 – Update CEQA Process. The District has created a guidance document that will meet this Storm Water Permit requirement entitled *Guidance for Addressing Stormwater Quality for CEQA Review*, which has been attached. In an effort to streamline future CEQA processing and maintain compliance with the Storm Water Permit, FMFCD recommends that all future CEQA review within the City of Fresno utilize the attached guidance document Exhibit "A".

Thank you for the opportunity to comment. If you have any questions or require further information, please do not hesitate to contact me at (559) 456-3292.

Sincerely,

Denise Wade
Master Plan and Special Projects Manager

DW/lrl

Attachments

FIGURE 3.2 | Planned Land Use

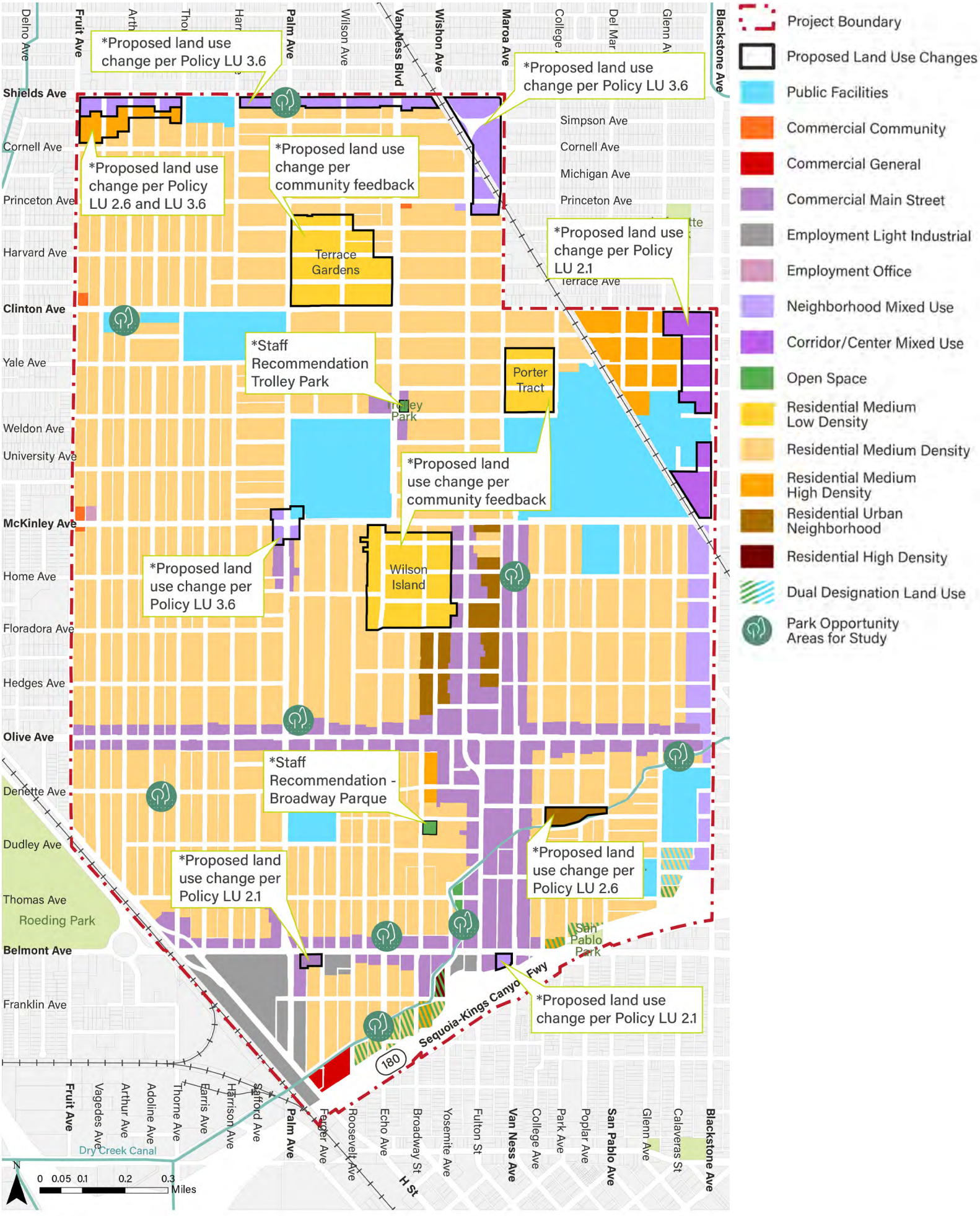

EXHIBIT "A"

Fresno Metropolitan Flood Control District

Guidance for Addressing Stormwater Quality for CEQA Review

Stormwater Checklist for CEQA Review

a. Potential impact of project construction on stormwater runoff.

Stormwater runoff from construction activities can have a significant impact on water quality. To build on sites with over one acre of disturbed land, property owners must obtain coverage under the California Construction General Permit for Discharges of Stormwater (CGP). The CGP is issued by the State Water Resources Control Board (SWRCB). The CGP requires sites that do not qualify for an erosivity waiver to create a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP is a site-specific plan that is designed to control the discharge of pollutants from the construction site to local storm drains and waterways.

b. Potential impact of project post-construction activity on stormwater runoff.

FMFCD operates the Regional Stormwater Mitigation System, which consists of facilities to handle stormwater runoff and non-stormwater discharges in the FMFCD service area. However, river discharging drainage areas and drainage areas without basin service are subject to FMFCD Policy: Providing for Compliance with Post-Development and Industrial Storm Water Pollution Control Requirements (Policy).

Development and redevelopment projects can result in discharge of pollutants to receiving waters. Pollutants of concern for a project site depend on the following factors:

- Project location;
- Land use and activities that have occurred on the project site in the past;
- Land use and activities that are likely to occur in the future; and
- Receiving water impairments.

As land use activities and site design practices evolve, particularly with increased incorporation of stormwater quality BMPs, characteristic stormwater runoff concentrations and pollutants of concern from various land use types are also likely to change.

Typical Pollutants of Concern and Sources for Post-Development Areas

Pollutant	Potential Sources
Sediment (total suspended solids and turbidity), trash and debris (gross solids and floatables)	Streets, landscaped areas, driveways, roads, construction activities, atmospheric deposition, soil erosion (channels and slopes)

c. Potential for discharge of stormwater from areas from material storage, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.

Development projects may create potential impacts to stormwater from non-stormwater discharge from areas with material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work area.

Some materials, such as those containing heavy metals or toxic compounds, are of more concern than other materials. Toxic and hazardous materials must be prevented from coming in contact with stormwater runoff. Non-toxic or non-hazardous materials, such as debris and sediment, can also have significant impacts on receiving waters. Contact between non-toxic or non-hazardous materials and stormwater runoff should be limited, and such materials prevented from being discharged with stormwater runoff. To help mitigate these potential impacts, BMPs should be included to prevent discharges from leaving the property.

Refer to FMFCD Post-Development Standards Technical Manual for more information or go to http://water.epa.gov/polwaste/nps/urban.cfm.

d. Potential for discharge of stormwater to impact the beneficial uses of the receiving waters or areas that provide water quality benefits.

Identify receiving waters and describe activities that may impact the beneficial uses of the receiving waters or that project water quality benefits. Project that can impact beneficial uses or receiving waters may be mitigated by implementation of the FMFCD Post-Development Standards Technical Manual.

e. Potential for the discharge of stormwater to cause significant harm on the biological integrity of the water ways and water bodies.

Conservation of natural areas, soils, and vegetation helps to retain numerous functions of pre-development hydrology, including rainfall interception, infiltration, and evapotranspiration. Each project site possesses unique topographic, hydrologic, and vegetative features, some of which are more suitable for development than others. Sensitive areas, such as streams and their buffers, floodplains, wetlands, steep slopes, and highly-permeable soils, should be protected and/or restored. Slopes can be a major source of sediment and should be properly protected and stabilized. Locating development in less sensitive areas of a project site and conserving naturally vegetated areas can minimize environmental impacts from stormwater runoff.

The evaluation of a project's effect on sensitive natural communities should encompass aquatic and wetland habitats. Consider "aquatic and wetland habitat" as examples of sensitive habitat.

f. Potential for significant changes in the flow velocity or volume of stormwater runoff that can cause environmental harm.

The evaluation of a project's effect on drainage patterns should refer to the FMFCD's Storm Drainage and Flood Control Master Plan and have their project reviewed by FMFCD to assess the significance of altering existing drainage patterns and to develop any mitigation measures in addition to our stormwater mitigation system. The evaluation should also consider any potential for streambed or bank erosion downstream from the project.

g. Potential for significant increases in erosion of the project site or surrounding areas.

The evaluation of a project's effect on drainage patterns should refer to the FMFCD's Storm Drainage and Flood Control Master Plan and have their project reviewed by FMFCD to assess the significance of altering existing drainage patterns and to develop any mitigation measures in addition to our stormwater mitigation system. The evaluation should also consider any potential for streambed or bank erosion downstream from the project.

APPENDIX C

INITIAL STUDY

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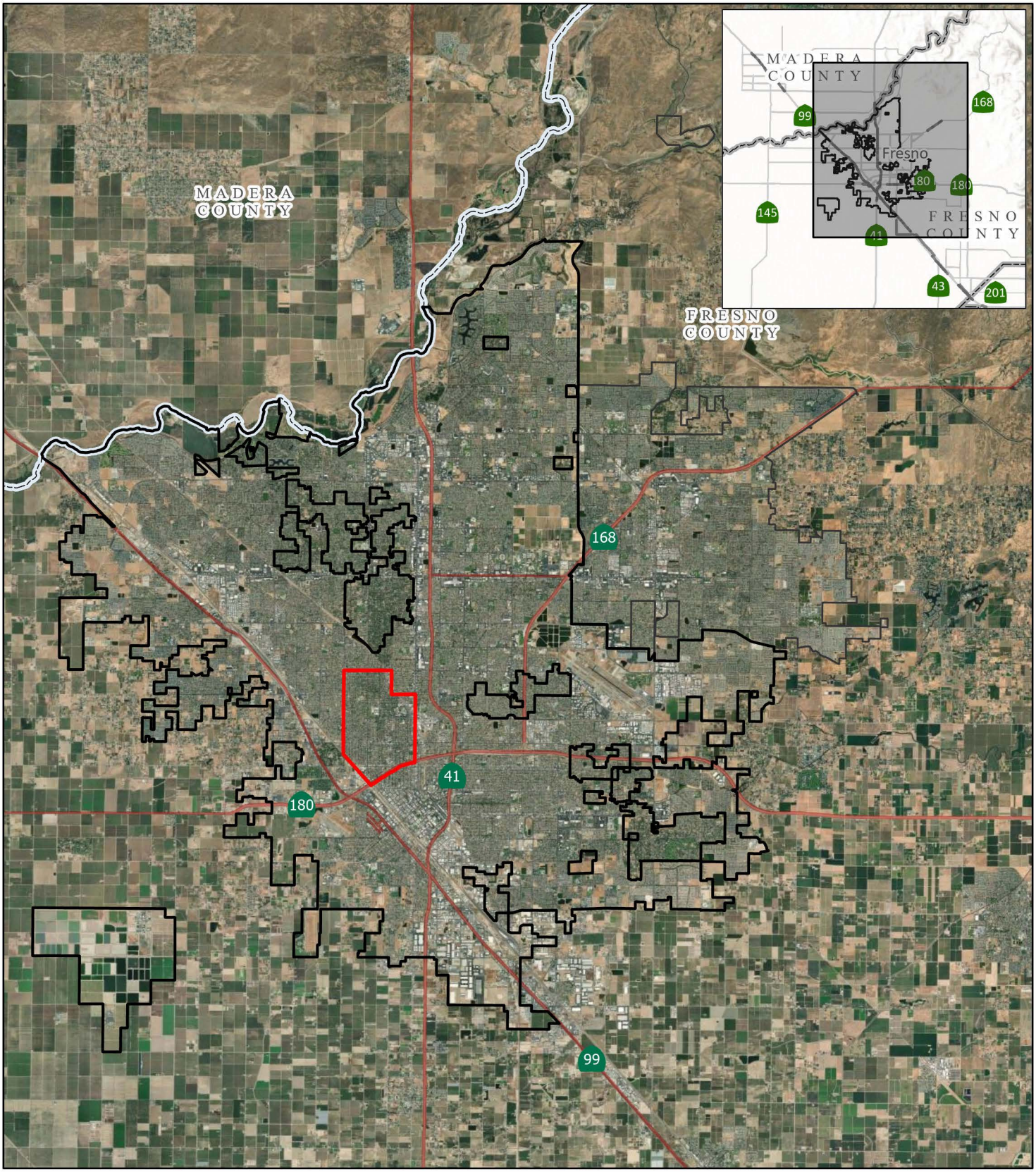
APPENDIX G
INITIAL STUDY FOR AN ENVIRONMENTAL IMPACT REPORT

Environmental Checklist Form for:
Tower District Specific Plan Update

1.	**Project title:** Tower District Specific Plan Update
2.	**Lead agency name and address:** City of Fresno Planning and Development Department 2600 Fresno Street Fresno, California 93721
3.	**Contact person and phone number:** Sophia Pagoulatos Planning Manager City of Fresno Planning and Development Department (559) 621-8062
4.	**Project location:** The Tower District is located within the City of Fresno (City), in Fresno County, in the central San Joaquin Valley. The City of Fresno is approximately 200 miles north of Los Angeles, and 170 miles south of Sacramento. The Tower District (District) is an approximately 1,869-acre area located immediately north of Downtown Fresno and the State Route (SR) 180 freeway, and one mile east of the SR-99 corridor. To the north of the City is Madera County, northeast and adjacent is the City of Clovis, and unincorporated land lies to the east, south, and west. **Figure 1, Regional Location and Local Vicinity Map**, shows the Tower District and the City of Fresno in their regional context. The Specific Plan Area for the proposed project is comprised of the Tower District, which is centrally located within the City of Fresno. The Specific Plan Area is generally bound by Shields Avenue to the north, Blackstone Avenue to the east, SR-180 to the south, and Fruit Avenue and the Union Pacific Railroad to the west. **Figure 2, Project Location**, shows the location of the Specific Plan Area within the City. The Tower District, and therefore the Specific Plan Area, is the geographic area for the Specific Plan Update.
5.	**Project sponsor's name and address:** City of Fresno Planning and Development Department 2600 Fresno Street Fresno, California 93721



LSA

Tower District Boundary
County Boundary
City of Fresno
City of Clovis

0 7500 15000
FEET

SOURCE: Esri World Imagery (2025)

FIGURE 1

Tower District Specific Plan Update

Regional Location and Local Vicinity

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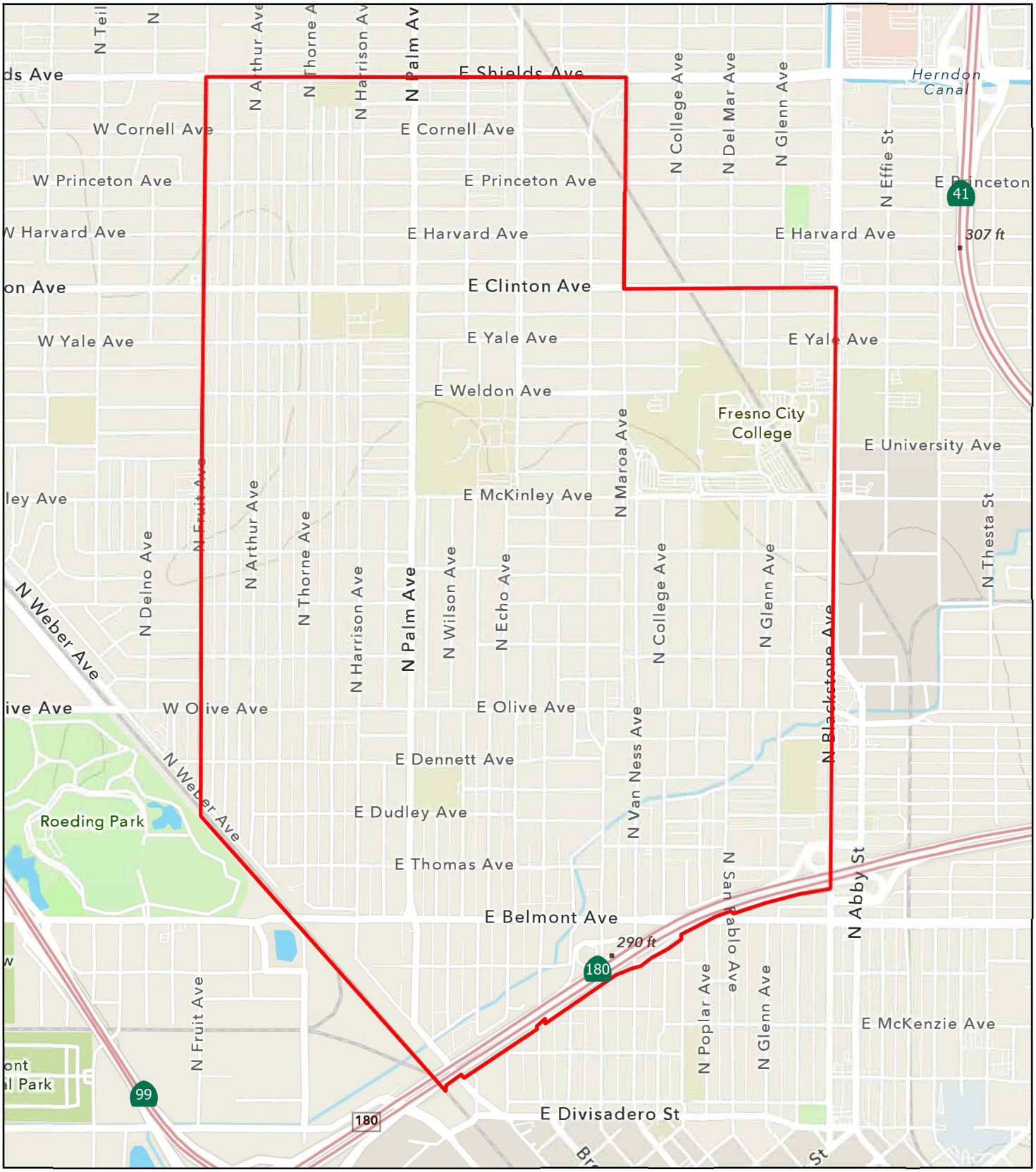

LSA

Tower District Boundary

FIGURE 2

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SOURCE: Esri Outdoor Contour Map (2025)

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Tower District Specific Plan Update

Project Location

6.	**General & Community plan land use designation:** Multiple land use designations are found throughout the Specific Plan Area, including: • Residential • Commercial • Employment • Mixed-Use • Open Space • Public Facilities • Industrial **Figure 3, Existing General Plan Land Uses,** shows the existing land uses in the Specific Plan Area.
7.	**Zoning:** Multiple zoning designations are found throughout the Specific Plan Area, including: • Residential Single Family, Medium Low Density (RS-4) • Residential Single-Family, Medium Density (RS-5) • Residential Multi-Family, Medium High Density (RM-1) • Residential Multi-Family, Urban Neighborhood (RM-2) • Residential Multi-Family, High Density (RM-3) • Commercial Community (CC) • Commercial General (CG) • Commercial Main Street (CMS) • Neighborhood Mixed-Use (NMX) • Corridor/Center Mixed-Use (CMX) • Employment Office (O) • Employment Light Industrial (IL) • Park and Recreation (PR) • Public and Institutional (PI)
8.	**Description of project:** The proposed project aims to provide strategic and comprehensive guidance for making decisions regarding the District's built environment and landscape character, land use and activities, public open space, community facilities, and transportation. The City previously adopted the 1991 Tower District Specific Plan, which emphasized conservation and historic preservation throughout the District and remains a focus of the proposed project. The proposed project would update the 1991 Specific Plan to respond to issues in the District that have remained, changed, and emerged over the ensuing decades.

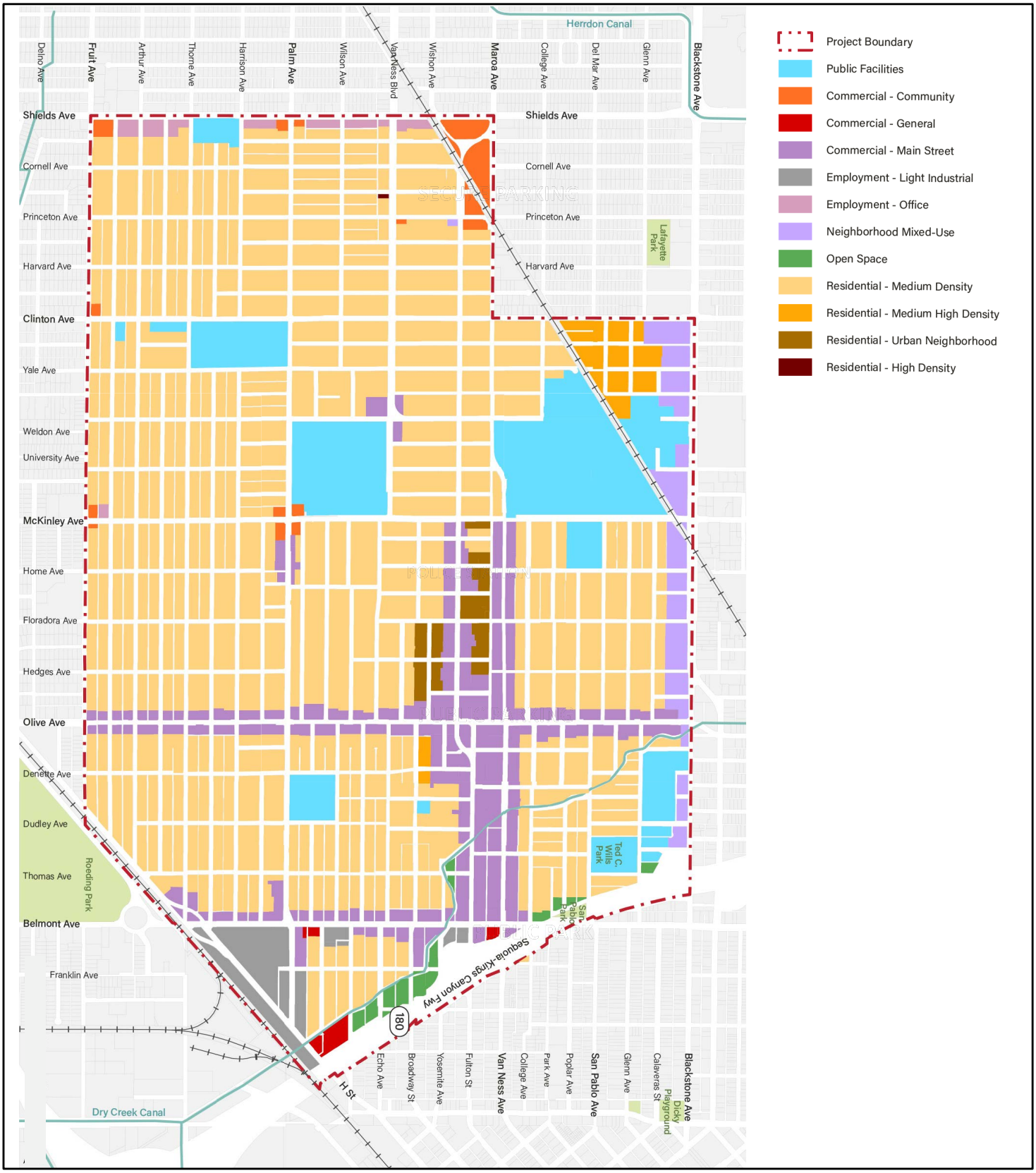

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FIGURE 3

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Tower District Specific Plan Update

Existing General Plan Land Uses

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The proposed project aims to provide a focused outline for implementing the broader goals of the City's General Plan in a manner that fits the needs of the District, as well as streamlining development within the Specific Plan Area by providing updated environmental analysis pursuant to the California Environmental Quality Act (CEQA) requirements. To achieve the goals of the proposed project and address the various needs of the District, the Tower District Specific Plan Update is divided into six key chapters, which are briefly described below:

1. Introduction. This chapter provides a brief history of the Tower District including its regional context, development patterns, community character, and resident demographics. It also provides an overview of the planning process for development of the Specific Plan Update and key issues identified during the community engagement process and establishes the guiding principles of the Specific Plan Update.
2. Conservation and Historic Preservation. This chapter provides an overview of historic resources within the District, and how future development should preserve and protect the historic and cultural identity of the District.
3. Land Use. This chapter considers existing land use patterns in the District and evaluates proposed focused land use changes. It sets parameters for allowable activities and the characteristics of future development within the District while providing a framework for how future development should meet the District's needs and aspirations.
4. Parks and Open Spaces. This chapter examines the state of parks and other public facilities such as trails, schools, and libraries within the District and how those spaces should be expanded and improved.
5. Circulation. This chapter evaluates the effectiveness of existing circulation infrastructure across multiple modes of transportation and how infrastructure should move people and goods throughout the District. This chapter focuses not only on circulation across the overall street network, but street designs themselves and guidelines for improving existing streets.
6. Utilities. As the District is largely a built-out environment, this chapter examines the current state of existing utility infrastructure.

Additionally, the proposed project would include updated Design Standards and Guidelines that are built upon historic development patterns, the Citywide Development Code, the original Design Guidelines, and the updated Specific Plan, in order to guide development projects to make positive contributions to the District's uniqueness, beauty, and walkability. The updated Design Standards and Guidelines are intended to preserve the essence of the District while facilitating compatible infill development and addressing the needs, considerations, and practices that have emerged since adoption of the original Design Guidelines.

Please see Chapter 3.0, Project Description, of the Tower District Specific Plan Environmental Impact Report for additional information on the Project Description.

9.	**Surrounding land uses and setting:** The Specific Plan Area is located near the center of Fresno and is surrounded by an urban built-up environment. Surrounding land uses include residential, commercial, light industrial, and institutional uses.
10.	**Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** In addition to the City of Fresno, the following is a general list of potential Responsible and Trustee Agencies that may have jurisdiction over future development projects within the Specific Plan Area: • California Department of Transportation (Caltrans), including the Division of Aeronautics • California Air Resources Board (CARB) • California Department of Conservation (DOC) • California Department of Fish and Wildlife (CDFW) • California Department of Forestry and Fire Protection (CAL FIRE) • California Department of Housing and Community Development (HCD) • California Department of Parks and Recreation (DPR) • California Department of Toxic Substances Control (DTSC) • California Public Utilities Commission (CPUC) • California State Office of Historic Preservation (OHP) • California State Lands Commission (SLC) • California State Water Resources Control Board (SWRCB) • Central Valley Regional Water Quality Control Board (Central Valley RWQCB) • Fresno Airport Land Use Commission (Fresno ALUC) • Fresno Metropolitan Flood Control District (FMFCD) • Fresno Irrigation District • Fresno Unified School District (FUSD) • San Joaquin Valley Air Pollution Control District (SJVAPCD) • Any Other Responsible or Trustee Agency that may need to provide discretionary approval
11.	**Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) Section 21080.3.1? If so, has consultation begun?** The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the *State CEQA Guidelines*. Pursuant to PRC Section 21080.3.1, before public distribution of the document, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Register of Historical Resources or

	local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)). According to the most recent census data, California is home to 109 currently recognized Indian tribes. Tribes in California currently have nearly 100 separate reservations or Rancherias. Fresno County has a number of Rancherias such as Table Mountain Rancheria, Millerton Rancheria, Big Sandy Rancheria, Cold Springs Rancheria, and Squaw Valley Rancheria. These Rancherias are not located within the City limits. Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality. Pursuant to Senate Bill (SB) 18, Native American tribes traditionally and culturally affiliated with the project area were invited to consult regarding the project based on a list of contacts provided by the Native American Heritage Commission (NAHC). This list includes tribes that requested notification pursuant to Assembly Bill (AB) 52. The City of Fresno mailed notices of the proposed project to each of these tribes on July 15, 2025 that included the required 90-day time period for tribes to request consultation, which ends on October 13, 2025. No consultation requests have been received at the time of publication of the Draft EIR.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated in the following checklist.

☐	Aesthetics	☐	Agriculture and Forestry Resources
☒	Air Quality	☒	Biological Resources
☒	Cultural Resources	☐	Energy
☐	Geology/Soils	☒	Greenhouse Gas Emissions
☐	Hazards and 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: (To be completed by the Lead Agency)

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 proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
_X_	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.
___	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be addressed.
___	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Sophia Pagoulatos Planning Manager — August 13, 2025

Planner Name, Title — Date

1. For purposes of this Initial Study, the following answers have the corresponding meanings:

   a. "No Impact" means the specific impact category does not apply to the project, or that the record sufficiently demonstrates that project specific factors or general standards applicable to the project would result in no impact for the threshold under consideration.

   b. "Less Than Significant Impact" means there is an impact related to the threshold

under consideration, but that the potential impact would be less than significant.

c. “Less Than Significant with Mitigation Incorporation” means there is a potentially significant impact related to the threshold under consideration, however, with the mitigation incorporated into the project, the impact would be less than significant.

d. “Potentially Significant Impact” means there is substantial evidence that an effect resulting from the proposed project may be significant related to the threshold under consideration.

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

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

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

5. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from, "Earlier Analyses," as described in (6) below, may be cross-referenced).

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

a. Earlier Analysis Used. Identify and state where they are available for review.

b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

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

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

9. The explanation of each issue should identify:

   a. The significance criteria or threshold, if any, used to evaluate each question; and

   b. The mitigation measure identified, if any, to reduce the impact to less than significance.

I. AESTHETICS

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

DISCUSSION

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

A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the public's benefit. The City's approved General Plan identifies six locations along the San Joaquin River bluffs, which are approximately 5.5 miles north of the Specific Plan Area, as designated vista points from which views should be maintained. Scenic vistas within the Specific Plan Area could provide distant views of features such as the San Joaquin River to the north and the foothills of the Sierra Nevada Mountains to the east.

The Specific Plan Area is urban and built-up, located within the center of the city of Fresno. It offers a mix of single- and multi-family housing, small businesses and commercial uses, schools and public institutions, and light industrial uses. The visual setting of the Specific Plan Area is primarily characterized by areas of low- to moderate-scale buildings and structures. The Specific Plan Update would provide comprehensive guidance for the future of the Tower District's built environment, with a goal to retain and enhance the existing character. The Specific Plan Area is not located within any of the scenic vista points identified in the General Plan. Implementation of the Specific Plan Update would not significantly affect or block a potentially scenic vista in the City. Therefore, the proposed project would have a less-than-significant impact on a scenic vista. This section will not be discussed in the EIR.

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

According to the Caltrans State Scenic Highway Mapping System,[1] there are no eligible or officially-designated State Scenic Highways within the city of Fresno. However, Fresno County has three eligible State Scenic Highways; the nearest eligible highways include a portion of SR-180, located approximately 7 miles east of the City, and a portion of SR-168, located approximately 5 miles east of City. The nearest officially-designated State Scenic Highway is located more than 30 miles northeast of the city, within the county of Madera.

Although there are no eligible or officially designated State Scenic Highways located in the Specific Plan Area, the City's General Plan designates the following local scenic drives:

- North Van Ness Boulevard – East Weldon Avenue to West Shaw Avenue
- North Wishon Avenue – Divisadero Street to East Weldon Avenue

The Specific Plan Update would facilitate new development in the Specific Plan Area, but future projects would not affect the scenic qualities along these scenic drives. Since there are no eligible or officially-designated State Scenic Highways within or in close proximity to the Specific Plan Area, implementation of the Specific Plan Update would not damage scenic resources within a designated State Scenic Highway. Therefore, there would be a less-than-significant impact. This section will not be discussed in the EIR.

c) In non-urbanized areas, 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

[1] California Department of Transportation (Caltrans). Scenic Highways. Website: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways (accessed March 5, 2025).

point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Specific Plan Area is urban and built-up, located within the center of the city of Fresno. It offers a mix of single- and multi-family housing, small businesses and commercial uses, schools and public institutions, and light industrial uses. The visual setting of the Specific Plan Area is primarily characterized by areas of low- to moderate-scale buildings and structures. The Specific Plan Update would provide comprehensive guidance for the future of the District's built environment, with a goal to retain and enhance the existing character. Although the Specific Plan Update would change the visual characteristics of the Tower District by changing land use and zoning designations and facilitating new development, the design of the future projects would be consistent and compatible with the visual character of the project vicinity.

The proposed design standards and guidelines would provide a framework for future development within the Specific Plan Area that would be consistent and compatible with the existing visual character. Future development would be required to comply with the zoning-specific development standards and guidelines governing scenic quality, including setbacks, landscaping, outdoor lighting, and signage.

The Specific Plan Update would not substantially degrade the visual character or quality of the site and its surroundings. Therefore, the proposed project would result in a less-than-significant impact. This section will not be discussed in the EIR.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The Specific Plan Area is located in an urbanized area subject to preexisting exterior lighting from surrounding developments and existing street lighting. The Specific Plan Update would introduce new sources of light and glare to the area in the form of future development, including but not limited to residential dwellings, commercial buildings, and mixed-use buildings. However, new sources of light and glare associated with the project would not be substantial in the context of existing lighting sources in the Specific Plan Area. In addition, daytime glare would not be substantial because no highly reflective glass elements or building materials are proposed as part of the project. Compliance with California Building Code (Title 24, California Code of Regulations) standards address light and glare impacts to day-time and night-time views resulting from construction of the proposed project. Therefore, potential light and glare from the proposed project would result in a less-than-significant impact. This section will not be discussed in the EIR.

II. AGRICULTURE AND FORESTRY RESOURCES

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

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

DISCUSSION

a) 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?

The Specific Plan Area is located within an urbanized area of the city of Fresno. There are no agricultural uses located within or adjacent to the Specific Plan Area. Additionally, the Specific Plan Area is classified as "Urban and Built Up" by the State Department of Conservation.[2] Therefore, implementation of the Specific Plan Update would not convert agricultural land to a non-agricultural use. The Specific Plan Update would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, and there would be no impact. This section will not be discussed in the EIR.

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

There are no active Willimson Act contracts located within the Specific Plan Area. There are multiple zoning districts designated within the Specific Plan Area, including Commercial Community (CC), Commercial General (CG), Commercial Main Street (CMS), Employment Light Industrial (IL), Employment Office (O), Neighborhood Mixed-Use (NMX), Park and Recreation (PR), Public and Institutional (PI), Residential Single Family, Medium Low Density (RS-4), Residential Single-Family, Medium Density (RS-5), Residential Multi-Family, Medium High Density (RM-1), Residential Multi-Family, Urban Neighborhood (RM-2), and Residential Multi-Family, High Density (RM-3). Under the City of Fresno Code of Ordinances Section 15-802, Single-Family Residential Districts including the RS-4 and RS-5 designations allow for some agricultural uses including crop cultivation, roadside fruit stands, and community

[2] California Department of Conservation (DOC). 2016. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed March 5, 2025).

gardens, and these uses would continue to be allowed under the proposed project.[3] Therefore, implementation of the Specific Plan Update would not conflict with existing zoning for agricultural use or a Williamson Act contract, and the proposed project have a less than significant impact. This section will not be discussed in the EIR.

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

The Specific Plan Area is located within an existing urban area and does not contain any forest land or timberland. Implementation of the Specific Plan Update would not conflict with the existing zoning for, or cause rezoning of, forest land or conversion of forest land to non-forest uses. Therefore, the proposed project would have no impact. This section will not be discussed in the EIR.

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

Please refer to the discussion for Criterion II.c) above. The Specific Plan Update would not result in the loss of forest land or conversion of forest land to non-forest uses. Therefore, implementation of the Specific Plan Update would have no impact. This section will not be discussed in the EIR.

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?

Please refer to the discussion for Criteria II.a) and II.c) above. The Specific Plan Area is located within an existing urban environment, and implementation of the Specific Plan Update would not result in the conversion of farmland to non-agricultural uses or forest land to non-forest uses. Therefore, implementation of the Specific Plan Update would have no impact. This section will not be discussed in the EIR.

[3] City of Fresno. 2025. *Code of Ordinances.* Website: https://library.municode.com/ca/fresno/codes/code_of_ordinances?nodeId=MUCOFR_CH15CIDECOINRE_PTIIBAOVDI_ART9RESIMIDIRS_S15-902USRE (accessed July 24, 2025).

III. AIR QUALITY

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

DISCUSSION

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

CEQA requires that certain proposed projects be analyzed for consistency with the applicable air quality plan. An air quality plan describes air pollution control strategies

to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the San Joaquin Valley Air Basin (SJVAB) into attainment, the San Joaquin Valley Air Pollution Control District (SJVAPCD) adopted the 2022 Plan for the 2015 8-Hour Ozone Standard in December 2022 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.

To assure the SJVAB's continued attainment of the U.S. Environmental Protection Agency (USEPA) respirable particulate matter (PM_{10}) standard, the SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007. SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions) is designed to reduce PM_{10} emissions generated by human activity. The SJVAPCD adopted the 2018 plan for the 1997, 2006, and 2012 fine particulate matter ($PM_{2.5}$) standard to address the USEPA federal annual $PM_{2.5}$ standard of 12 micrograms per cubic meter ($\mu g/m^3$), established in 2012.

The SJVAPCD has established project construction and operational emissions thresholds for criteria pollutants.[4] For a project to be consistent with SJVAPCD attainment plans, the pollutants emitted from project operation should not exceed the SJVAPCD daily thresholds, cause a significant impact on air quality, or the project must already have been included in the attainment plans projection.

Implementation of the proposed project could conflict with or obstruct implementation of the applicable air quality plan. This topic will be analyzed further in the EIR.

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?

CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. Therefore, if annual emissions of construction- or operational-related criteria air pollutants exceed any applicable threshold established by the SJVAPCD, the proposed project would result in a cumulatively significant impact. The proposed project's construction and operational emissions of criteria pollutants have the potential to exceed SJVAPCD established significance thresholds, and conflict with an established attainment plan for carbon monoxide (CO), nitrogen oxides (NO_X), reactive organic gases (ROG), sulfur oxides (SO_X), PM_{10}, or $PM_{2.5}$ emissions during project construction or operation.

[4] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Air Quality Thresholds of Significance – Criteria Pollutants. Website: http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf (accessed June 2025).

Implementation of the proposed project could result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. This topic will be analyzed further in the EIR.

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

Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). This topic will be analyzed further in the EIR.

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

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the Specific Plan Area. The potential for diesel odor impacts is therefore considered less than significant. In addition, the proposed uses that would be developed within the Specific Plan Area are not expected to produce any offensive odors that would result in frequent odor complaints because substantial odor-generating sources are not proposed, such as land uses including agricultural activities, feedlots, wastewater treatment facilities, landfills, or heavy manufacturing uses. However, implementation of the Specific Plan Update could create emissions that would affect a substantial number of people during project construction or operation. This topic will be analyzed further in the EIR.

IV. BIOLOGICAL RESOURCES

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

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

DISCUSSION

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 Wildlife or the U.S. Fish and Wildlife Service?

The Specific Plan Area is located in an urbanized, built-up area with a mix of single- and multi-family housing, small businesses and commercial uses, schools and public institutions, and light industrial uses. The Specific Plan Area is primarily characterized by areas of low- to moderate-scale buildings and structures, and qualifies as Urban under the California Department of Fish and Wildlife (CDFW) California Wildlife Habitat Relationships System. There are a variety of native and nonnative trees and shrubs within the Specific Plan Area, including palms, magnolias, eucalyptus, cypress, sycamores, and pepper trees. A Biological Resource Evaluation was completed for the proposed project and found that of the eight special-status plant species and 22 special-status animal species, only one was determined to have potential to occur on site–the Western mastiff bat. Additionally, common wildlife species that are adapted to urban environments are expected to continue to use the area with implementation of the Specific Plan Update. The Specific Plan area contains suitable habitat that could support ground- and tree-nesting bird species protected under the Migratory Bird Treaty Act and California Fish and Game Code.

Therefore, implementation of the Specific Plan Update would result in direct or indirect adverse effects of special-status plants or wildlife. This topic will be analyzed further in the EIR.

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 Wildlife or the U.S. Fish and Wildlife Service?

Future development that occurs in the vicinity of the San Joaquin River, its tributaries, any lakes or streams, and/or open grasslands with seasonal wetlands, may result in a significant impact to riparian habitat or a special-status natural community. No riparian habitat or other sensitive natural communities occur within the Specific Plan Area, or within the vicinity of the area. The Specific Plan Area consists entirely of developed areas. Therefore, there would be a less than significant impact. This section will not be discussed in the EIR.

c) Would the project 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?

Future development that occurs in the vicinity of the San Joaquin River corridor may result in significant impacts to protected wetlands. A single drainage, Dry Creek Canal, is present in the southern portion of the Specific Plan Area. This canal is owned and managed by the Fresno Metropolitan Flood Control District (FMFCD). It would not be affected by implementation of the Specific Plan Update. No other aquatic features are present within the area. The Specific Plan Area consists entirely of developed areas. As a result, there would be a less-than-significant impact. This section will not be discussed in the EIR.

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?

Open space areas, undeveloped land, and agricultural lands are mainly located along the boundaries of the City, particularly near the northern boundary along the San Joaquin River corridor. The San Joaquin River corridor functions as a wildlife movement corridor for a number of terrestrial and aquatic mammals and birds. The San Joaquin River corridor facilitates movement of wildlife species from the City to the Sierra Nevada Mountains to the east and open agricultural land to the west.

The Specific Plan Area and surrounding area is completely developed, and there are no known native or migratory wildlife species using the area. The Specific Plan Area does not intersect an identified wildlife movement corridor of regional or local importance, nor does it support an important wildlife nursery site. The highly disturbed nature of the area, plus the dense urban developed area surrounding it, would discourage wildlife movement. As a result, there would be a less-than-significant impact. This section will not be discussed in the EIR.

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

The Specific Plan Area falls within the City's General Plan area, which includes a variety of goals, objectives and policies aimed at the preservation of natural biological resources. The City's Municipal Code includes tree protection and planting requirements for street trees and all trees on private property. This includes acquiring a permit to remove trees, planting tree species from the City's approved tree list, and protection of designated special or heritage trees (Article 3 of Chapter 13 of the City of Fresno Municipal Code). As a City project, the implementation of the Tower District Specific Plan Update would comply with the City's Municipal Code and would not conflict with any local policies or ordinances protecting biological resources. As a result, implementation of the Specific Plan Update would have a less than significant impact. This section will not be discussed in the EIR.

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?

The Pacific Gas and Electric (PG&E) San Joaquin Valley Operation and Maintenance (O&M) Habitat Conservation Plan (HCP)[5] was approved in 2007 and covers portions of nine counties, including Fresno County. This HCP covers PG&E activities which occur as a result of ongoing O&M that would have an adverse impact on any of the 65 covered species and provides incidental take coverage from the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW). The Specific Plan Area is not located within the covered area of any HCP, Natural Community Conservation Plan (NCCP), or other adopted local, regional or State HCP. Therefore, implementation of the Specific Plan Update would not conflict with the provisions of the PG&E HCP and would have a less-than-significant impact. This section will not be discussed in the EIR.

[5] Pacific Gas and Electric (PG&E). 2007. PG&E San Joaquin Valley Operation & Maintenance Habitat Conservation Plan. Website: https://ecos.fws.gov/docs/plan_documents/thcp/thcp_838.pdf (accessed March 5, 2025).

V. CULTURAL RESOURCES

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

DISCUSSION

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

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

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

According to the *State CEQA Guidelines*, "When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource" (CEQA Guidelines Section 15064.5(c)(1)). Those archaeological sites that do not qualify as historical resources shall be assessed to determine if these qualify as "unique archaeological resources" (PRC Section 21083.2). The proposed project

has the potential to cause a substantial adverse change in the significance of an archaeological resource. This topic will be analyzed further in the EIR.

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

Disturbance of human remains interred outside of formal cemeteries would result in a significant impact. If human remains are identified during project construction, Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the PRC shall apply, as appropriate. There is always a possibility that ground-disturbing activities associated with future development may uncover previously unknown buried human remains. This topic will be analyzed further in the EIR.

VI. ENERGY

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

DISCUSSION

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

The proposed project would increase the demand for energy through day-to-day operations and fuel consumption associated with project construction. This section discusses energy use resulting from implementation of the proposed project and evaluates whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency.

Construction. Future development associated with the Specific Plan Update would require energy resources primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. The proposed project would require site preparation, grading, infrastructure, surface paving activities during construction, and architectural coatings (painting). The construction-related equipment would not be powered by natural gas, and no natural gas demand is anticipated during construction.

Transportation energy represents the largest energy use during construction and would occur from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction worker vehicles that would use petroleum fuels (e.g., diesel fuel and/or gasoline). Therefore, the analysis of energy use during construction focuses on fuel consumption. Construction trucks and vendor trucks hauling materials to and from the Specific Plan Area would be anticipated to use diesel fuel, whereas construction workers traveling to and from the Specific Plan Area would be anticipated to use gasoline-powered vehicles. Fuel consumption from transportation uses depends on the type and number of trips, vehicle miles traveled (VMT), the fuel efficiency of the vehicles, and the travel mode.

Estimates of fuel consumption (diesel fuel and gasoline) from construction equipment, construction trucks, and construction worker vehicles were based on default construction equipment assumptions and trip estimates from CalEEMod and fuel efficiencies from EMFAC2025.

It is assumed that buildout of the proposed project would occur over a 20-year period beginning with the adoption of the Specific Plan Update in 2025. However, the exact construction schedule is not yet known. Therefore, to provide a conservative analysis of what could occur due to construction activities, this analysis assumes that project construction will begin in January 2026 and continue through the year 2046. Construction phases are expected to occur consecutively; therefore, this analysis evaluates construction as a whole and not per phase. This analysis utilized default construction equipment in CalEEMod. The grading operation is anticipated to be balanced on-site and would not require import or export of materials. As a conservative estimate, this analysis assumes the use of Tier 2 construction equipment. Other construction details are not yet known; therefore, default assumptions (e.g., construction worker and truck trips and fleet activities) from CalEEMod were used. Fuel consumption estimates are presented in Table 4. CalEEMod output sheets and detailed energy calculations are included in Appendix E.

Table A: Construction Energy Estimates

Energy Type	Energy Consumption
Total Fuel Consumption	
Gasoline (total gallons)	5,915,156.5
Diesel Fuel (total gallons)	3,880,685.8
Fuel Consumption Per Year	
Gasoline (gallons per year)[1]	295,757.8
Diesel Fuel (gallons per year)[1]	194,034.3

Source: Compiled by LSA Associates, Inc. (July 2025).

[1] Gallons per year is the total gallons of fuel averaged over the 7-year planning period.

As indicated in Table A, construction associated with the buildout of the proposed project would consume approximately 5,915,156.5 gallons of gasoline and approximately 3,880,685.8 gallons of diesel fuel during construction. As discussed above, the proposed project would be constructed over an approximately 20-year planning period; therefore, when averaged over 20 years, the proposed project would consume approximately 295,757.8 gallons of gasoline per year and 194,034.3 gallons of diesel fuel per year during construction. Based on fuel consumption obtained from EMFAC2025, approximately 308.6 million gallons of gasoline and approximately 150.7 million gallons of diesel will be consumed from vehicle trips in Fresno County in 2026. Therefore, construction of the proposed project would increase the annual construction generated fuel use in Fresno County by approximately 0.10 percent for gasoline fuel usage and by 0.13 percent for diesel fuel usage. As such, project construction would have a negligible effect on local and regional energy supplies.

Furthermore, impacts related to energy use during construction would be temporary and relatively small in comparison to Fresno County's overall use of the State's available energy resources. No unusual project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the State. In addition, construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. The proposed project would not cause or result in the need for additional energy facilities or an additional or expanded delivery system.

Since the preparation of the 1991 Specific Plan, there has been a shift to mandate clean energy (such as solar, hydroelectric, wind, and nuclear sources), resulting in trip reduction and energy conservation measures. The State and the SJVAPCD would continue to adopt additional regulations on most sources of emissions to be implemented during the proposed project buildout period and result in much greater reductions than is predicted with the adopted regulations. In addition, impacts from construction activities are expected to decline over time as new cleaner equipment replaces older higher emitting equipment. For example, the CARB has adopted regulations for new off-road diesel engines and equipment that result in cleaner equipment being placed in service as older, higher emitting equipment is retired. For

these reasons, fuel consumption during construction would not be inefficient, wasteful, or unnecessary. Impacts would be less than significant.

Operation. Operational energy use is typically associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with implementation of the proposed project.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use, or “plug-in” energy use, can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.). Annual natural gas and electricity usage estimates associated with project operation were obtained from CalEEMod.

In addition, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. Based on the trip generation prepared by LSA, buildout of the proposed project would typically generate approximately 19,094 average daily trips. The amount of operational fuel use was estimated using CARB’s EMFAC2025 model, which provided projections for typical daily fuel usage in Fresno County for the operational year of 2046 (buildout).

Operational energy use associated with the land uses under the Approved Specific Plan were also evaluated. The existing land use designations in the Specific Plan Area include a mix of residential, commercial, public institutions, and pockets of industrial uses. Therefore, this analysis was conducted using land use codes Single Family Housing, Apartments Low Rise, Industrial Park, and Strip Mall. Trip generation rates used in CalEEMod were based on the trip generation described in Section 4.17, Transportation, which identifies that the buildout of the Approved Specific Plan would generate approximately 36,054 ADT. This analysis assumes an operational year of 2025.

Table B provides the estimated annual operational energy usage.

Table B: Operational Energy Estimates

Energy Type	Total Energy Consumption
Approved Specific Plan – Existing Uses	
Electricity Consumption (kWh/year)	23,270,338.0
Natural Gas Consumption (therms/year)	788,902.0
Gasoline (gallons/year)	2,928,387.7
Diesel Fuel (gallons/year)	408,362.3
Proposed Project Energy Consumption	
Electricity Consumption (kWh/year)	27,130,562.0
Natural Gas Consumption (therms/year)	948,733.0
Gasoline (gallons/year)	2,761,322.8
Diesel Fuel (gallons/year)	469,243.3
Net Energy Consumption (Proposed Project – Existing Uses)	
Electricity Consumption (kWh/year)	3,860,224.0
Natural Gas Consumption (therms/year)	159,831.0
Gasoline (gallons/year)	-167,065.7
Diesel Fuel (gallons/year)	60,881.0

Source: Compiled by LSA (December 2022).
kWh = kilowatt hours

As shown in Table B, the estimated potential net increase in electricity demand associated with the operation of the proposed project is 3,860,224.0 kWh per year. Total electricity consumption in Fresno County in 2022 was 8,384,408,687 kWh. Therefore, operation of the proposed project would increase the annual electricity consumption in Fresno County by less than 0.1 percent.

As shown in Table B, the estimated potential net increase in natural gas demand associated with the proposed project is 159,831.0 therms per year. Total natural gas consumption in Fresno County in 2022 was 319,435,645 therms. Therefore, operation of the proposed project would negligibly increase the annual natural gas consumption in Fresno County by less than 0.1 percent.

Although there would be an overall increase in energy demand associated with the proposed project, the CALGreen Code (California Code of Regulations, Title 24, Part 11), sets performance standards for nonresidential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, materials conservation, planning and design, and overall environmental quality. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Standards Code that became effective on January 1, 2023.

The proposed project would be required to adhere to all federal, State, and local requirements for energy efficiency, including current Title 24 and CALGreen Code standards which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would reduce energy usage. In addition, proposed new development would be constructed using energy efficient modern building materials and construction practices, and the proposed project also

would use new modern appliances and equipment, in accordance with the Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608). Title 24 includes requirements for reductions in energy consumption and increasing energy efficiency. Title 24 now has solar installation requirements for all newly constructed non-residential projects. The CBC now mandates incorporation of solar photovoltaic systems and battery storage in many non-residential projects, or for non-qualifying projects installation of solar-ready roofs and systems. These requirements serve to offset electricity demand and the project will be required to adhere to applicable Title 24 requirements. The proposed project's compliance with Title 24 will be confirmed prior to issuance of building permits. The expected energy consumption during construction and operation of the proposed project would be consistent with typical usage rates for residential and non-residential uses. Therefore, electrical and natural gas demand associated with project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

In addition, the proposed project would also result in energy usage associated with gasoline and diesel fuel consumed by project-related vehicle trips. As shown in Table B, fuel use associated with the vehicle trips generated by the proposed project would result in a net reduction of approximately 167,065.7 gallons of gasoline and a net increase of approximately 60,881.0 gallons of diesel fuel per year. Based on fuel consumption obtained from EMFAC2025, approximately 79.8 million gallons of diesel and approximately 55.6 million gallons of gasoline would be consumed from vehicle trips in Fresno County through 2046 (buildout year). Vehicle trips associated with the proposed project would not increase the annual gasoline use in Fresno County. The truck trips associated with the proposed project would increase the annual fuel use in Fresno Cunty by approximately 0.1 percent for diesel fuel usage. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses, such that it would result in a wasteful, inefficient, or unnecessary consumption of energy resources.

As described in Chapter 3.0, Project Description of the EIR, the proposed project would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on Blackstone Avenue and Shields Avenue. This would allow for ground level commercial uses fronting public streets and sidewalks, while residential uses would be located above or behind. This would continue to promote the walkability of the District while allowing for greater residential development. Additionally, medium low density residential uses would be allowed at Terrace Gardens, Porter Tract, and Wilson Island. As such, implementation of the proposed project would promote alternative forms of transportation (e.g., walking and cycling) and would reduce vehicle miles traveled. Overall, the nearby transit facilities and proposed improvements to the pedestrian network would support public transit use and walking and bicycling.

Impacts associated with future operation of individual projects that may occur with implementation of the proposed project would be required to prepare project specific technical assessments evaluating operational-related energy impacts to further ensure that operational-related energy consumption would be reduced to the

maximum extent feasible for projects that require environmental evaluation under CEQA. The State and the SJVAPCD would continue to adopt additional regulations on most sources of emissions to be implemented during the proposed project buildout period and result in much greater reductions than is predicted with the adopted regulations. In addition, expanded use of renewable fuels, zero emission vehicles, and replacing combustion sources with electrically powered alternatives will also result in reductions in energy consumption.

For these reasons, implementation of the proposed project would not result in a substantial increase in energy and fuel-related uses, such that it would result in a wasteful, inefficient, or unnecessary consumption of energy resources. Impacts would be less than significant, and no mitigation is required. This section will not be discussed in the EIR.

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

In 2002, the State Legislature passed SB 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the Integrated Energy Policy Report. The integrated energy plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the integrated energy plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles (ZEVs) and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The most recently adopted report includes the 2023 Integrated Energy Policy Report[6] and the 2024 Integrated Energy Policy Report Update.[7] The City of Fresno relies on the State integrated energy plan and does not have its own local plan to address renewable energy or energy efficiency. As indicated above, energy usage associated with construction of the proposed project would be temporary in nature and would be relatively small in comparison to the overall use in the county. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the overall use in Fresno County, and the State's available energy resources. Therefore, energy impacts at the regional level would be negligible. Because California's energy conservation planning actions are conducted at a regional level, and because the proposed Project's total impact on regional energy supplies would be minor, the proposed project would not conflict with or obstruct California's energy conservation plans as described in the CEC's Integrated Energy

6 CEC. 2023. *2023 Integrated Energy Policy Report*. California Energy Commission. Docket Number: 23-IEPR-01.

7 CEC. 2024. *2024 Integrated Energy Policy Report Update*. California Energy Commission. Docket Number: 24-IEPR-01.

Policy Report. Additionally, as demonstrated above, the proposed project would not result in the inefficient, wasteful, and unnecessary consumption of energy.

In addition, implementation of the proposed project aims to promote mixed-use development and encourage alternative modes of transportation to reduce vehicle trip lengths and reliance on the automobile, which in turn, would reduce the transportation energy demand in the Specific Plan Area. Implementation of the proposed project also encourages development of housing near employment and transportation, which would lead to a potential decrease in VMT. Continued implementation of the proposed project would also promote land use patterns that would improve walking and bicycling facilities to be more prominent, comfortable, and safe throughout the City.

Future projects facilitated by implementation of the proposed project would be required to comply with federal, State, and local regulations aimed at reducing energy consumption. In addition, the approved General Plan includes several objectives and policies aimed at reducing energy consumption within the City of Fresno, and the proposed project includes policies aimed at reducing energy consumption within the Specific Plan Area. These objectives and policies have been developed in accordance with federal and State energy regulations, such as the California Energy Code Building Energy Efficiency Standards (Title 24, Part 6), the CALGreen Code (Title 24, Part 11), and SB 743, which are also aimed at reducing energy consumption. Therefore, the proposed project would be consistent with applicable plans related to renewable energy and energy efficiency, and no mitigation would be required. Potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant, and no mitigation is required. This section will not be discussed in the EIR.

VII. GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII.– Would the project:				
a) Directly or Indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

DISCUSSION

a) 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? Refer to Division of Mines and Geology Special Publication 42.

Fault ruptures are generally expected to occur along active fault traces that have exhibited signs of recent geological movement (i.e., in the last 11,000 years). Alquist-Priolo Earthquake Fault Zones delineate areas around active faults with potential surface fault rupture hazards that would require specific geological investigations prior to approval of certain kinds of development within the delineated area. The Specific Plan Area is not located within an Alquist-Priolo Earthquake Fault Zone. In addition, no known active or potentially active faults or fault traces are located in the project vicinity. The nearest active fault is the Nunez Fault, located approximately 50 miles southwest of the Specific Plan Area, As a result, potential impacts related to fault ruptures would be less than significant. This section will not be discussed in the EIR.

ii. Strong seismic ground shaking?

The city of Fresno is located in an area with historically low to moderate level of seismicity. However, strong ground shaking could occur within the Specific Plan Area during seismic events and occurrences have the possibility to result in significant impacts. Major seismic activity along the nearby Great Valley Fault Zone or the Nunez Fault, or other associated faults, could affect the Specific Plan Area through strong seismic ground shaking. Strong seismic ground shaking could potentially cause structural damage to buildings within the Specific Plan Area. However, due to the distance to the known faults, hazards due to ground shaking would be minimal. In addition, compliance with the California Building Code (Title 24, California Code of Regulations) would ensure that the geotechnical design of the proposed project would reduce potential impacts related to seismic ground shaking to less than significant. This section will not be discussed in the EIR.

iii. Seismic-related ground failure, including liquefaction?

The predominant soils within the city of Fresno and the Specific Plan Area consist of varying combinations of loose/very soft to very dense/hard silts, clays, sands, and gravels. Groundwater has been encountered near the ground surface in close proximity to water-filled features such as canals, ditches, ponds, and lakes. Based on these characteristics, the potential for soil liquefaction within the city ranges from very low to moderate due to the variable density of the subsurface soils and the presence of shallow groundwater. In addition to liquefaction, the city could be

susceptible to induced settlement of loose unconsolidated soils or lateral spread during seismic shaking events. Based on the nature of the subsurface materials and the relatively low to moderate seismicity of the region, seismic settlement and/or lateral spread are not anticipated to represent a substantial hazard within the city during seismic events.

Based on the nature of the subsurface materials and the relatively low to moderate seismicity of the region, potential for seismic related ground failure is low in Fresno.[8] Additionally, compliance with the Fresno Municipal Code and the California Building Code, as well as General Plan Policies NS-2-a through NS-2-d would ensure that potential impacts associated with seismic-related ground failure would be less than significant. This section will not be discussed in the EIR.

iv. Landslides?

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

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

Grading and earthmoving during implementation of the Specific Plan Update has the potential to result in erosion and loss of topsoil. Exposed soils could be entrained in stormwater runoff and transported off future development sites. Future development projects would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP). Although designed primarily to protect stormwater quality, the SWPPP would incorporate Best Management Practices (BMPs) to minimize erosion. This impact would be less than significant. This section will not be discussed in the EIR.

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?

As described in the discussion for Criterion VII.a) previously, soils on the Specific Plan Area would not be subject to liquefaction, lateral spreading, or landslides. Additionally, development implemented through the Specific Plan Update would be required to

[8] City of Fresno. 2020. General Plan Program Environmental Impact Report - Geology and Soils. Website: https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/03/Fresno-GP-Public-Review-Draft-Program-EIR.pdf (accessed March 5, 2025).

conform with the California Building Code, which would reduce risks related to unstable soils. Therefore, implementation of the Specific Plan Update would have a less-than-significant impact related to unstable soils. This section will not be discussed in the EIR.

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

The surface and near-surface soils observed throughout the City consist of varying combinations of clays, silts, sands, gravels, and cobbles. Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. The clayey soils, which consist of very fine particles, are considered to be slightly to moderately expansive. The Specific Plan Area contains a variety of soils, all with relatively low clay content and low expansion potential. As future projects are developed in accordance with the Specific Plan Update, preliminary soil reports in compliance with the City of Fresno Municipal Code Ordinance Section 15-3302 may be required to be prepared to identify potential site-specific soil issues such as expansive soils, and to include foundation support and grading parameters in the project design to address site-specific soil conditions. Furthermore, compliance with recommendations from the City of Fresno Municipal Code would reduce potential impacts related to expansive soils to less than significant. This section will not be discussed in the EIR.

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

The Specific Plan Area is served by a wastewater conveyance system maintained by the Wastewater Management Division (WMD) of the City of Fresno. Wastewater from the City's collection system is treated at the Fresno/Clovis Regional Wastewater Reclamation Facility. Future development resulting from the implementation of the Specific Plan Update would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, implementation of the Specific Plan Update would have no impact related to the use of septic tanks or alternative wastewater disposal systems. This section will not be discussed in the EIR.

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

Development in the city of Fresno could potentially impact unknown paleontological resources or unique geological features. Implementation of the following Mitigation Measure would ensure that a field survey and record search are conducted prior to construction on a previously undisturbed site, and that paleontological/geological resources found during the field survey or during project construction would be handled and preserved by a qualified paleontologist. Adherence to the requirements in the following mitigation would reduce potential impacts to paleontological and

geological resources to a less than significant level. This section will not be discussed in the EIR.

Mitigation Measure GEO-1: Paleontological/Geologic Features.

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

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

- If unique paleontological/geological resources are found during the field survey or literature review, the resources shall be inventoried and evaluated for significance. If the resources are found to be significant, mitigation measures shall be identified by the qualified paleontologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include a paleontological monitor. The monitoring period shall be determined by the qualified paleontologist. If additional paleontological/geological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.

VIII. GREENHOUSE GAS EMISSIONS

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

DISCUSSION

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

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

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

The proposed project has the potential to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This topic will be analyzed further in the EIR.

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

Implementation of the proposed project could conflict with plans, policies, or regulations that have been adopted for the purpose of reducing GHG emissions. This topic will be analyzed further in the EIR.

IX. HAZARDS AND HAZARDOUS MATERIAL

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

DISCUSSION

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

Construction activities associated with the proposed project would involve the use of limited amounts of potentially hazardous materials, including but not limited to, solvents, paints, fuels, oils, and transmission fluids. However, all materials used during construction would be contained, stored, and handled in compliance with applicable standards and regulations established by the Department of Toxic Substances Control (DTSC), the United States Environmental Protection Agency (USEPA), and the Occupational Safety and Health Administration (OSHA). Light Industrial uses are present within the Specific Plan Area and are generally confined to the southwestern boundary and are consistent with the historical uses in that area as well as current land use and zoning designations. All storage, handling, and disposal of hazardous materials during future project construction and operation would comply with applicable safety standards and regulations, including General Plan Policies NS-4-a, NS-4-e, and NS-4-f.[9] No manufacturing, industrial, or other uses utilizing large amounts of hazardous materials would occur within the area as a result of implementation of the Specific Plan Update. Therefore, there would be a less-than-significant impact associated with the routine transport, use, or disposal of hazardous materials, and no mitigation is required. This section will not be discussed in the EIR.

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?

[9] City of Fresno. 2014. Fresno General Plan-Noise and Safety Element, pgs. 9-33, 9-34. Website: https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/GP9NoiseandSafety.pdf (accessed May 5, 2025).

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

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?

Fresno High School is located in the center of the Specific Plan Area, and Fresno City College occupies a large site east of the high school. Four elementary schools, one middle school, and one high school are located within the Specific Plan Area: Susan B. Anthony Elementary School, Heaton Elementary School, Muir Elementary School, Dailey Charter School, Hamilton Middle School, and Fresno High School. As previously stated, implementation of the Specific Plan Update would not result in the use or emissions of substantial quantities of hazardous materials that would pose a human or environmental health risk. Light industrial uses are located within the Specific Plan Area, and would continue to be allowed in the southwest portion of the Specific Plan Area. Muir Elementary is located approximately 0.28 mile north of the existing light industrial uses. The Specific Plan Update does not include new industrial land uses in proximity to schools. In addition, all materials would be handled, stored, and disposed of in accordance with applicable standards and regulations. Therefore, implementation of the Specific Plan Update would not involve activities that would result in the emission of hazardous materials or acutely hazardous substances to an existing or proposed school and would result in a less-than-significant impact in the use or emission of hazardous materials that would adversely affect an existing or proposed school. This section will not be discussed in the EIR.

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?

According to the DTSC EnviroStor database,[10] the Specific Plan Area does not contain any federal superfund sites, State response sites, voluntary cleanup sites, school cleanup sites, school investigation sites, military evaluation sites, tiered permit sites, or corrective action sites. There is one evaluation site located at 1503 North Palm Avenue, which was the former site of a dry cleaner.[11] Implementation of future

[10] California Department of Toxic Substances Control (DTSC). 2007. EnviroStor. Website: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=fresno (accessed March 5, 2025)

[11] California Department of Toxic Substances Control (DTSC). 2025. EnviroStor. Website: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60003284 (accessed March 5, 2025).

development under the Specific Plan Update would require compliance with all applicable regulations as established in the Fresno General Plan, including Policy NS-4-c, which requires an investigation of potentially contaminated sites where appropriate.[12] Additionally, the Specific Plan Area is not included on the list of hazardous waste sites compiled pursuant to Government Code Section 65962.5.[13] As a result, no hazards to the public or environment are anticipated, and the impact would be less than significant. This section will not be discussed in the EIR.

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

The nearest airports include the Fresno Yosemite International Airport, located approximately 3 miles east of the Specific Plan Area, the Fresno Chandler Executive Airport, located approximately 1 mile southwest of the Specific Plan Area, and the Sierra Sky Airport, located approximately 5.2 miles northwest of the Specific Plan Area. Although the Specific Plan Area is located within 2 miles of the Chandler Executive Airport, operations at the airport are not expected to pose a safety hazard for residents or people working at or visiting the Specific Plan Area, nor does any aspect of the proposed project conflict with the requirements in the Fresno County Airport Land Use Compatibility Plan (ALUCP) for Traffic Pattern Zones (TPZs) and Outer Approach/Departure Zones (OADZs). The southwest portion of the Plan Area lies within the Chandler Executive Airport's Land Use Plan and is identified solely as a Traffic Patter Zone and is not located within the Runway Protection Zone of an Approach/Departure Zone.14 In addition, future development allowed under the Specific Plan Update would not include any structures higher than 70 feet, hazardous uses, hazards to flight, or other land uses prohibited in TPZs or OADZs. Therefore, implementation of the Specific Plan Update would result in a less-than-significant impact related to a safety hazard for people residing or working in the Specific Plan Area. This section will not be discussed in the EIR.

The nearest medical center helipads (HP) includes the Community Regional Medical Center HP, located approximately one-half mile southeast of the Specific Plan Area, the Saint Agnes Medical Center HP, located approximately 4.2 miles northeast of the Specific Plan Area, and the Clovis Community Hospital HP, located approximately 8.5 miles northeast of the Specific Plan Area. Although the Community Regional Medical Center HP is within 2 miles of the area, implementation of the proposed project would not construct any oversized elements and would not conflict with the operation of the

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[12] City of Fresno. 2014. Fresno General Plan-Noise and Safety Element. Website: https://www.fresno.gov/wp-content/uploads/2023/03/9-Noise-and-Safety-02-03-21.pdf (accessed March 5, 2025).

[13] California Environmental Protection Agency. 2018. Government Code Section 65962.5(a) Hazardous Waste and Substances Site List. Website: https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/ (accessed March 5, 2025).

14 Fresno County Council of Governments. 2018. *Freno County Airport Land Use Compatibility Plan.* Website: https://www.fresnocog.org/wp-content/uploads/2025/01/Appendix-C-Fresno-Chandler-Executive-Airport-FCH.pdf (accessed July 24, 2025).

HP. Due to the distance between the Specific Plan Area and local airports and helipads, operations at these locations are not expected to pose a safety hazard for people in the District. Therefore, the implementation of the Specific Plan Update would not expose persons to airport-related hazards, and the potential impact would be less than significant. This section will not be discussed in the EIR.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The California Emergency Services Act requires cities to prepare and maintain an Emergency Plan for natural, manmade, or war-caused emergencies that result in conditions of disaster or in extreme peril to life. The City's full-time Emergency Preparedness Officer (EPO) is responsible for ensuring that Fresno's emergency response plans are up-to-date and implemented properly. The EPO also facilitates cooperation between City departments and other local, State, and federal agencies that would be involved in emergency response operations. The City of Fresno Emergency Operations Center (EOC) serves as the coordinator and communicator between the City of Fresno and the Fresno County Operational Area EOC. The proposed project would not result in any alterations of existing roadways that would block the circulation of emergency response services or introduce elements that would conflict with the operations of the EOC. Therefore, implementation of the Specific Plan Update would not interfere with emergency evacuation plans in the City, and this impact would be less than significant. This section will not be discussed in the EIR.

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

The Specific Plan Area is located in an area mapped as a Local Responsibility Area (LRA) Unzoned, indicating that the area is urbanized and not susceptible to wildland conflagrations, and is not located within a very high fire hazard severity zone (VHFHSZ).[15] Therefore, implementation of the Specific Plan Update would not expose people or structures to a significant loss, injury, or death involving wildland fires, and the impact would be less than significant. This section will not be discussed in the EIR.

[15] California Department of Forestry and Fire Protection (CAL FIRE). 2007. *Fresno County Fire Hazard Severity Zones in LRA.* Kune. Website: https://osfm.fire.ca.gov/media/6673/fhszl06_1_map10.pdf (accessed May 5, 2025).

X. HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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:			X	
i) Result in a substantial erosion or siltation on- or off-site;			X	
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site:			X	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
iv) impede or redirect flood flows?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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	

DISCUSSION

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

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

Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During potential future construction, there would be an increased potential to expose soils to wind and water erosion, which could result in temporary minimal increases in sediment load in nearby water bodies, including irrigation canals and stormwater basins located within the Specific Plan Area.

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

A SWPPP includes features designed to eliminate contact of rainfall and stormwater runoff with sources of pollution that occur on construction sites, the main source being soil erosion resulting from unstabilized soils coming in contact with water and wind. These features are known as Best Management Practices (BMPs). Common BMPs

to limit pollution in stormwater runoff from construction sites include maintaining or creating drainages to convey and direct surface runoff away from bare areas and installing physical barriers such as berms, silt fencing, waddles, straw bales, and gabions. Future development under the Specific Plan Update would be required to comply with requirements under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, including the SWPPP and BMPs, which would reduce construction impacts on water quality to less than significant levels.

Long-term operation impacts associated with implementation of the Specific Plan Update would be reduced to less than significant levels with the implementation of the City's Storm Drainage and Flood Control Master Plan (SDFCMP), which manages the City's stormwater drainage systems, and the City's participation in the Phase 1 NPDES Permit for Stormwater Discharges From Municipal Separate Storm Sewer Systems (Phase 1 MS4), which requires the City to implement water quality and watershed protection measures for all development projects. Therefore, impacts associated with the implementation of the Specific Plan Update would be less than significant. This section will not be discussed in the EIR.

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?

Water supply and wastewater services for the proposed project would be provided by the City of Fresno through the Department of Public Utilities (DPU) Water and Wastewater Management Divisions. As discussed below in Section XIX, Utilities and Service Systems, of this Initial Study, the City receives all of its water supply from groundwater. The City has indicated that groundwater wells, pump stations, recharge facilities, water treatment and distribution systems shall be expanded incrementally to mitigate increased water demands. One of the primary objectives of Fresno's future water supply plans detailed in Fresno's 2020 Urban Water Management Plan (UWMP)[16] is to balance groundwater operations through a host of strategies. Through careful planning, Fresno has designed a comprehensive plan to accomplish this objective by increasing surface water supplies and surface water treatment facilities, intentional recharge, and conservation, thereby reducing groundwater pumping. The City continually monitors impacts of land use changes and development project proposals on water supply facilities by assigning fixed demand allocations to each parcel by land use as currently zoned or proposed to be rezoned.

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

[16] City of Fresno. 2021. 2020 Urban Water Management Plan - Final. Website: https://www.fresno.gov/publicutilities/wp-content/uploads/sites/16/2021/07/Fresno-2020-UWMP_Final_2021-07-21.pdf (accessed May 5, 2025).

planning to rely on expanding their delivery and treatment of surface water supplies and groundwater recharge activities.

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

Future development associated with implementation of the Specific Plan Update would also be consistent with water management strategies from both the Urban Water Management Plan and the Metropolitan Water Resources Management Plan. Furthermore, future projects would be required to comply with water management requirements and recommendations of the City of Fresno Department of Public Utilities, which would reduce the project impacts to groundwater recharge to less than significant. When development permits are issued, the potential project sites would be required to pay drainage fees pursuant to the Drainage Fee Ordinance. This section will not be discussed in the EIR.

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, or through the addition of impervious surfaces, in a manner which would:

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

Future construction associated with implementation of the Specific Plan Update may result in grading within the Specific Plan Area that would expose native soils that could be subject to the effects associated with wind and water erosion unless adequate measures are taken to limit the transport of soils in surface water from the site to downstream locations*.*

Stormwater collection and disposal, and flood control for the City of Fresno, City of Clovis, and the unincorporated areas within the City of Fresno's sphere of influence are provided by the Fresno Metropolitan Flood Control District (FMFCD).

As required by the General Plan, a SWPPP would be developed prior to any ground disturbance associated with future projects and would include BMPs to reduce erosion and surface water contamination during construction of the proposed project. Additionally, compliance with the City's grading plan check process, the Fresno Metropolitan Flood Control District (FMFCD) Storm Drainage and Flood Control Master Plan (SDFCMP), and stipulations of the NPDES Construction General Permit would ensure that potential impacts related to erosion and saltation on- and off-site would be less than significant. This section will not be discussed in the EIR.

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

The Specific Plan Area is an urban built-up area with existing stormwater management infrastructure. Ground-disturbing activities related to future construction, such as grading, excavation, placing fill, and trenching, could change existing surface drainage patterns and increase the potential for flooding, particularly during storm events. Regulatory mechanisms in place that would reduce the effects of construction activities on drainage patterns that would result in flooding on or off the construction site include compliance with the City of Fresno grading plan check process, the SDFCMP, and the NPDES Construction General Permit. Compliance with these required regulations would reduce project construction impacts on grading patterns and flooding on- and off- of the construction site to less-than-significant levels. This section will not be discussed in the EIR.

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?

Please refer to the discussions under Criteria X.a) and X.c) i and ii in this section. Future development associated with implementation of the Specific Plan Update may increase impervious surfaces within the Specific Plan Area. However, with implementation of a SWPPP, which would require execution of BMPs for controlling pollution sources during project construction, compliance with the City's SDFCMP, and implementation of the NPDES Permit, implementation of the Specific Plan Update would not exceed capacity of stormwater drainage systems or generate additional sources of polluted runoff. Additionally, future projects developed under the proposed Specific Plan would be required pay the City a Drainage Fee to address impacts related to the increased amount of surface runoff. The impact would be less than significant. This section will not be discussed in the EIR.

iv. Impede or redirect flood flows?

Title 40 of the Code of Federal Regulations, Part 60 regulations (40 CFR 60), and the floodplain ordinance of the City of Fresno require that placement and flood provision structures within a floodplain not result in a cumulative change in the floodplain water surface that exceeds one foot. In addition, the regulations under 40 CFR 60 do not allow placement of structures within a regulatory floodway unless that placement would not result in any increase in the floodplain water surface elevation, meaning that there is no displacement or redirection of the floodway. The City's floodplain ordinance requires that a registered Civil Engineer in the State of California certify that no displacement of floodwater would result from the flood proofing of a structure within a floodplain or a regulatory floodway. The Specific Plan Area is not located within the 100-year flood hazard area as

mapped by the Federal Emergency Management Agency (FEMA).[17] As a result, the impact would be less than significant. This section will not be discussed in the EIR.

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

The Specific Plan Area is not located in flood hazard, tsunami, or seiche zones. Refer to the discussion under Criterion IX.a) in Section IX, Hazards and Hazardous Materials, regarding the use of hazardous materials within the Specific Plan Area. As a result, a less than significant impact would occur. This section will not be discussed in the EIR.

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

The city is located within the Kings Sub-basin, which is part of the larger San Joaquin Valley Groundwater Basin. The planning documents regarding water resources for the City include the North Kings Groundwater Sustainability Act (GSA) Groundwater Management Plan, the City of Fresno Urban Water Management Plan, and the City of Fresno Metropolitan Water Resources Management Plan. Implementation of projects under the proposed Specific Plan would be required to adhere to NPDES drainage control requirements during construction and operation as well as to FMFCD drainage control requirements. As a result, implementation of the Specific Plan Update would not conflict with any applicable water quality control plan or groundwater management plan, and the impact would be less than significant. This section will not be discussed in the EIR.

[17] Federal Emergency Management Agency (FEMA). 2020. FEMA Flood Map Service Center: Search By Address. Website: https://msc.fema.gov/portal/search?AddressQuery#searchresultsanchor (accessed April 2025).

XI. LAND USE AND PLANNING

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

DISCUSSION

a) Would the project physically divide an established community?

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

The Specific Plan Area is an urban built-up area made up of commercial, residential, mixed-use, and a small light industrial area. The proposed project includes updates to the Tower District Specific Plan in order to provide strategic and comprehensive guidance for making decisions regarding the District's built environment and landscape character, land use and activities, public open space, community facilities, transportation and other forms of infrastructure. These improvements would not affect connectivity and would not divide an established community. Because the overall purpose of the Specific Plan Update is to refine the vision established in the 1991 Specific Plan and the City's General Plan, as well as other improvements to accommodate new development, implementation of the Specific Plan Update would not adversely impact community connectivity nor divide the physical arrangement of the community. Therefore, implementation of the Specific Plan Update would have a less than significant impact. This section will not be discussed in the EIR.

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?

The Specific Plan Area contains a mix of land uses including residential uses, commercial uses, public facilities, light industrial, and open spaces as designated in the City's General Plan. The intent of the Specific Plan Update is to provide strategic and comprehensive guidance for future development within the Tower District, and its built environment and landscape character, land use and activities, public open space, community facilities, transportation, and other forms of infrastructure. Future development in accordance with the Specific Plan Update would require consistency with various federal, State, and local plans, policies, and regulations, including the City's General Plan.

The Specific Plan Update aims to retain the character of the District while promoting new investments. The proposed land use patterns and policies are designed to address a wide range of social, economic, and environmental challenges within the District. Further, the proposed changes are designed to help maintain and improve the community's desired character, provide diverse housing types at various affordability levels, promote commercial activity, maintain compatibility with industrial employment, promote recreation and education, and improve overall economic development and plan for future growth opportunities.

- Diverse and Affordable Housing. The Specific Plan aims to create more multi-unit housing that is more affordable for residents and provides more access to the local community.

- Commercial Activity. The District contains merchants, restauranteurs, and cultural venues that are integral to community life and provide a distinct sense of place. The Specific Plan retains the existing Commercial Main Street (CMS) land use and zoning designation that requires ground-floor commercial uses in the heart of the District's commercial areas. However, the Apartment House (AH) Overlay zoning designation would allow multi-unit development without the ground-floor commercial requirements.

- Industrial Employment and Compatibility. Light industrial uses are located along the southwest boundary of the Specific Plan Area. These areas are important historical and economic centers, as they bring employment opportunities. Some of these businesses have been in the neighborhood for many decades and have long-standing relationships with local residents and institutions.

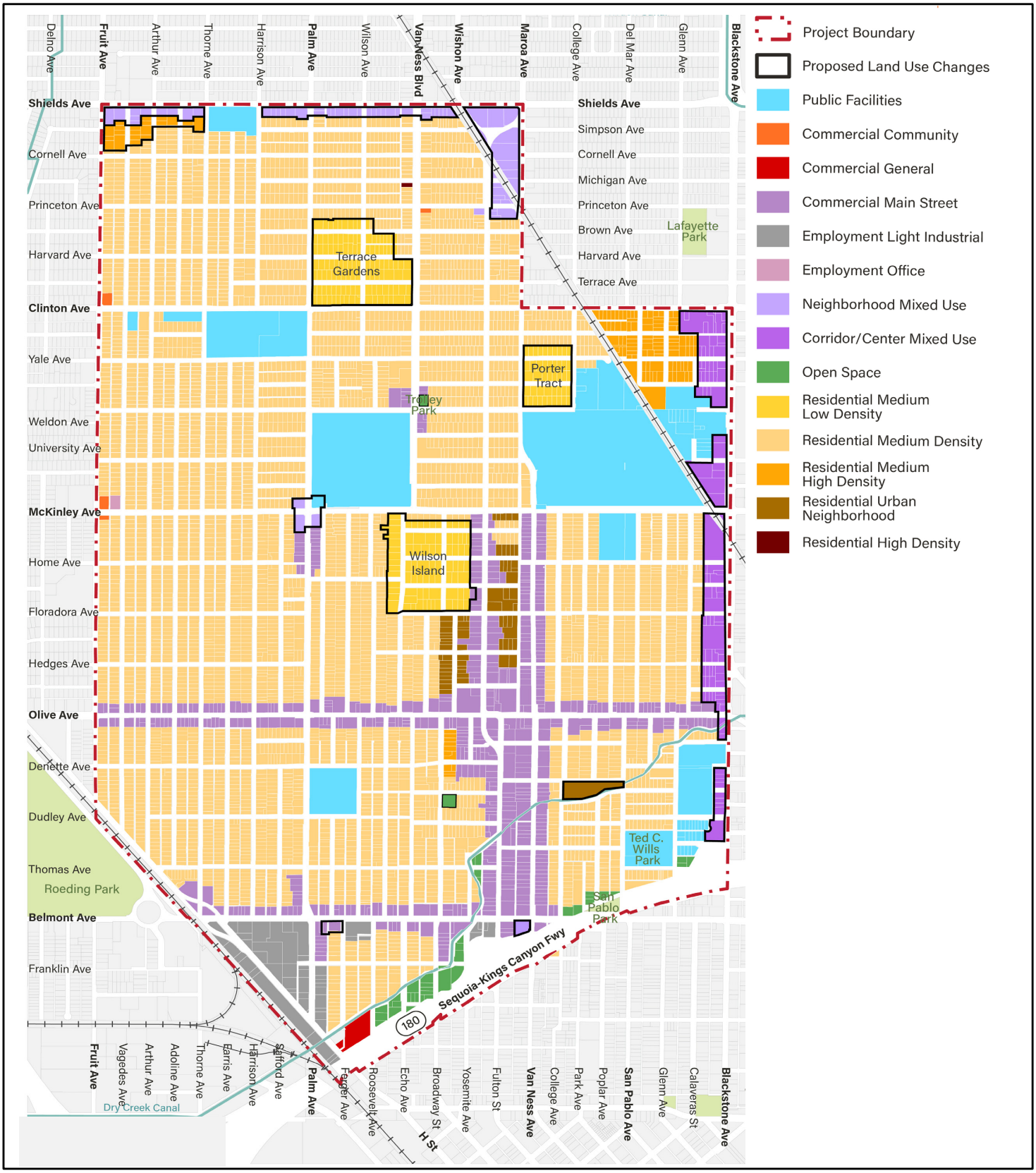
The Specific Plan Update would implement land use changes that would maintain and enhance the character-defining elements associated with the Tower District while allowing for future growth, as shown in **Figure 4, Planned Land Uses**. The Specific Plan Update would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on North Blackstone Avenue and East Shields Avenue. This would allow for ground-level commercial uses fronting public streets and sidewalks, while residential uses would be located above or behind, and would continue to promote the walkability of the District while allowing for greater residential development. Additionally, medium low density residential uses would be allowed at Terrace Gardens, Porter Tract, and Wilson Island, which is currently designated as medium density. The medium low density designation would reduce future residential development from 5 to 12 units per acre to 3.5 to 6 units per acre within those areas.

The Specific Plan Update would also expand the Apartment House (AH) Overlay zoning designation along Olive Avenue, from North Fruit Avenue to North Echo Avenue, as shown in Figure 3.3, Planned Overlay Districts, of the Specific Plan Update. The expansion of this overlay is intended to preserve and enhance the pattern of pedestrian-oriented small-footprint apartment houses, grand homes, and small commercial buildings that exist in some pre-World War II neighborhoods. It would allow for the development of multifamily residential uses without the accompanying ground-floor commercial uses in areas that are proposed to be designated as neighborhood mixed use.

The majority of the area within the Specific Plan Area is already developed and is not expected to change. However, the Specific Plan Update highlights underutilized sites as candidates for investment and restoration. Underutilized sites are generally located along the District's commercial corridors. Enlarging or redeveloping existing buildings would allow for buildings in poor condition or low economic value to be improved. Many factors impact potential for new development, such as location, size, access, density, floor area ratio, building heights, parking, and open space. Redeveloping underutilized sites would allow for decreased development costs while maintaining quality and community character.

Land uses allowing for residential growth within the Specific Plan Area include Residential Medium Low Density (RS-4), Residential Medium Density (RS-5), Residential Medium High Density (RM-1), Residential Urban Neighborhood (RM-2), and Residential High Density (RM-3), as well as Commercial Main Street (CMS), Neighborhood Mixed Use (NMX) and Corridor/Center Mixed Use (CMX).

The Specific Plan Update proposes updated Design Standards and Guidelines that are built upon historic development patterns, the Citywide Development Code, the original Design Guidelines, and the updated Specific Plan, in order to guide development projects to make positive contributions to the District's uniqueness, beauty, and walkability. The updated Design Standards and Guidelines are intended to preserve the essence of the District while facilitating compatible infill development.



LSA

FIGURE 4

Tower District Specific Plan Update

Planned Land Uses

SOURCE: City of Fresno 2025

I:\2024\20241643\G\Proposed_LandUse.ai (7/23/2025)

These Design Standards and Guidelines would be implemented with the Specific Plan Update and are based in large part on the original Tower District Design Guidelines that were adopted in 2011. The purposes of the original Design Guidelines remain relevant and would continue to guide development:

1. To assist property owners and developers by clearly describing what is expected of projects in the Tower District Specific Plan Area, thus minimizing delay and uncertainty.

2. To assist City and community review authorities by guiding development to ensure that new projects enhance the established character of the area and increase their viability.

3. To assist the City and community review authorities by making it clear to developers and property owners what is expected of them from new development and the remodeling of existing buildings.

4. To maintain the integrity and further the implementation of the goals, objectives, and policies of the Tower District Specific Plan.

The updated Design Standards and Guidelines also address needs, considerations, and practices that have emerged since adoption of the original Design Guidelines. These additional purposes include:

1. Incorporate best practices for urban design and architecture that have emerged as practices have been applied and tested, and as innovation has occurred.

2. Account for the State of California legislation that limit local government discretion in the review and approval of housing projects by emphasizing clarity, fairness, and timeliness. Specifically, anticipate applications for qualifying housing projects, for which State law limits review to established “objective standards” that “involve no personal or subjective judgement … and are uniformly verifiable by reference to an external and uniform benchmark …”.

3. Support implementation of the City’s Housing Element and housing production by avoiding development standards that could make the maximum allowable density (as stated in the Development Code) physically or financially infeasible.

4. Emphasize development compatibility with Tower District’s unique sense of place through the use of objective standards for essential design attributes and continued use of design guidelines where flexibility in interpretation is needed.

Future development projects proposed in the zoning designations in the Specific Plan Area would be subject to regulations within the Development Code and the updated Design Guidelines and Standards. Future projects would also conform to the requirements of the underlying zoning district, all applicable overlay districts, and all other Articles within the Development Code.

Implementation of the Specific Plan Update would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Land use changes within the Specific Plan Area that would occur would be consistent with the goals of the City's General Plan to encourage housing opportunities and connectivity within communities. A comparison of the Specific Plan Update with all applicable objectives outlined in the General Plan as they relate to land use issues are presented in Appendix D; as shown, the Specific Plan Update is consistent with these objectives. Therefore, the impact from implementation of the Specific Plan Update would be less than significant. This section will not be discussed in the EIR.

XII. MINERAL RESOURCES

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

DISCUSSION

a) 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?

The principal area for mineral resources in the city of Fresno is located along the San Joaquin River Corridor. The California Department of Mines and Geology classifies lands along the San Joaquin River Corridor as Mineral Resource Zone (MRZ-) 1, MRZ-2, and MRZ-3. The Specific Plan Area is not located in the vicinity of the San Joaquin River, is not an MRZ, and the Specific Plan Area does not contain an MRZ. The City's General Plan includes Objective RC-10 and Policies RC-10-a through RC-10-f to conserve aggregate mineral resources, which would be applied by the proposed project, as applicable.[18] As a result, implementation of the Specific Plan

[18] City of Fresno. 2016. General Plan. Resource Conservation and Resilience. Website: https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/GP7ResourceConservation.pdf (accessed May 29, 2025).

Update would not result in the loss of availability of a known mineral resource of value to the region or residents of the State. Therefore, the impact would be less than significant. This section will not be discussed in the EIR.

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?

Please refer to the discussion for Criterion XII.a). Implementation of the Specific Plan Update would not result in the loss of availability of any known locally important mineral resource recovery sites. Therefore, it would have a less than significant impact. This section will not be discussed in the EIR.

XIII. NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			
b) Generation of excessive groundborne vibration or groundborne noise levels?	X			
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	X			

DISCUSSION

a) 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 in other applicable local, state, or federal standards?

A potentially significant impact may occur if a proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the excess of standards established in the local general plan or noise ordinance, or in other applicable local, State, or federal standards. This topic will be analyzed further in the EIR.

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

A potentially significant impact may occur if a proposed project would generate excessive groundborne vibration or noise levels. This topic will be analyzed further in the EIR.

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

As discussed in Section IX Hazards and Hazardous Materials, the nearest medical center helipads (HPs) to the Specific Plan Area include the Community Regional Medical Center HP, located approximately 0.5 mile south of the Specific Plan Area, the Saint Agnes Medical Center HP, located approximately 4.2 miles northeast of the Specific Plan Area, and the Clovis Community Hospital HP, located approximately 8.5 miles northeast of the Specific Plan Area. Although the Community Regional Medical Center HP is within 2 miles of the area, the proposed project would not construct any oversized elements and would not conflict with the operation of the HP.[19] The nearest airports include the Fresno Yosemite International Airport, located approximately 3 miles east of the Specific Plan Area, the Fresno Chandler Executive Airport, located approximately 1 mile southwest of the Specific Plan Area, and the Sierra Sky Airport, located approximately 5.2 miles northwest of the Specific Plan Area. This topic will be analyzed further in the EIR.

[19] Fresno Council of Governments. 2018. Fresno County Airport Land Use Compatibility Plan. Amended December 2021. Website: https://www.fresnocog.org/project/airport-land-use-commission-fresno-county/ (accessed May 30, 2025).

XIV. POPULATION AND HOUSING

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

DISCUSSION

a) 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)?

The proposed project would implement the Specific Plan Update, which would include updates to land use designations to residential, commercial, light industrial, public facilities, and open spaces, along with revised Design Guidelines and Standards. The intent of the proposed project is to provide strategic and comprehensive guidance for making decisions regarding the Tower District's built environment and landscape character, land use and activities, public open space, community facilities, transportation, and other forms of infrastructure.

Housing

The Specific Plan Update would retain the existing Commercial Main Street (CMS) land use and zoning designation that requires ground-floor commercial uses in the heart of the District's commercial areas. However, the proposed expansion of the AH Overlay zoning designation along Olive Avenue (see Figure 4) would allow multi-unit development without the ground-floor commercial requirements. The Specific Plan Update would also highlight vacant and underutilized sites as candidates for investment and restoration. Underutilized sites are generally located along the District's commercial corridors. The proposed redevelopment of existing buildings would allow for buildings in poor condition or low economic value to be improved.

Many factors impact the potential for new development, such as the location, size, access, density, floor area ratio, building heights, parking, and open space. Redeveloping underutilized sites would allow for decreased development costs while maintaining quality and community character of the District.

According to 2020 U.S. Census Bureau estimates, the Specific Plan Area includes a total population of 20,200, based on the census track block groups whose population is all or mainly in the Tower District.[20] The Tower District is among the more densely populated areas of Fresno, with many blocks exceeding 9,000 people per square mile, which is significantly higher than the City's lower-density suburban areas. As of 2020 US Census data, there are approximately 7,336 residential units within the Tower.[21] Under the existing land use and zoning designations within the Specific Plan Area, residential development is estimated to have additional capacity for 2,271 new housing units. This takes into account the redevelopment of 59 units currently identified as underutilized sites; therefore, the net gain of residential units under the existing zoning and land use capacity is 2,212 new residential units. The proposed Specific Plan Update would update land use and zoning designations to allow an additional capacity of 2,807 residential units, which would total a net increase of 2,748 residential units when taking the existing units on underutilized sites into account. Therefore, the proposed land use designations would increase residential development capacity by an estimated 537 units compared with current land use and zoning designations.

As described in Chapter 3.0, Project Description, of the EIR, the existing land use and zoning designations anticipate that the Specific Plan Area would result in 9,607 total residential units as the current General Plan is implemented through the Horizon Year of 2035. As noted above, the proposed Specific Plan Update could result in 10,143 total housing units due to new land use and zoning designations, which is 537 units greater than the existing estimated buildout. The potential net increase of 537 residential units within the Specific Plan Area is within the growth contemplated by the Fresno General Plan, which anticipates growth of up to 267,000 additional residential units by the Horizon Year of 2035, as shown in Table C.

According to the 2023 Fresno Multi-jurisdictional 2023-2031 Housing Element, countywide average annual growth was 1.2 percent between 2000 and 2022, compared to -0.01 percent statewide. [22] The city of Fresno holds more than half of the county's population and has the same average annual growth percentage. As discussed in the 2023-2031 Housing Element, as of 2020 the city of Fresno's average household size was 3.0 persons per household. Additionally, countywide population is projected to grow to an estimated 1,240,090 persons by the year 2050. This assumes an average annual growth rate of 0.6 percent between 2025 and 2050.

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20 City of Fresno. Date TBD. Draft Tower District Specific Plan Update. Page 15.

21 US Census, source needed from WRT.

22 Fresno Council of Governments. 2023. Fresno Multi-Jurisdictional 2023-2031 Housing Element. https://www.fresno.gov/wp-content/uploads/2025/01/Fresno-Multi-Jurisdictional-2023-2031-Housing-Element.pdf (accessed July 2025).

Table C: Residential Dwelling Units in the Tower District and City of Fresno

Residential Dwelling Units	Tower District	City of Fresno General Plan Under Horizon Year 2035[1]
Existing	7,336[2]	191,000[3]
Future Capacity under the Specific Plan Update	2,807	76,000
Total Units	**10,143**	**267,000**

[1] Data from 2014 City of Fresno General Plan, Table 1-2 "Residential Development Capacity Under Horizon and Buildout".

[2] Existing dwelling unit count is based on the 2020 U.S. Census for dwelling units within the Tower District and General Plan Land Use designations.

[3] Existing dwelling unit count is based on the 2010 U.S. Census for dwelling units within the City limits (approximately 171,000 dwelling units) added to the Fresno Council of Government informal aerial photo and census tract study estimate of 2010 population and dwelling units within the area located outside of the City limits and inside the City's Sphere of Influence boundary (approximately 20,000 dwelling units) for a total of approximately 191,000 dwelling units.

The major goals of the Housing Element are to facilitate and encourage new housing development, provide affordable housing and special needs housing, further fair and equal housing opportunities, and encourage energy efficiency in all new and existing housing. As a region, the total housing needed over the 2023-2031 projection period is 58,298 units, of which 36,866 would be allocated in the city of Fresno.

Accordingly, implementation of the proposed Specific Plan Update would not exceed the City's projection for future growth and would be consistent with the General Plan and Housing Element goals to provide additional residential units to support the growing population within the city and county.

Employment

The majority of commercial development within the District lies within the southern half of the Specific Plan Area with major development corridors along North Van Ness Avenue, North Fulton Street, Olive Avenue, and Belmont Avenue. Additional pockets of commercial development can be found throughout the Specific Plan Area including the Trolley Park area, along Maroa Avenue, the area surrounding the intersection of East McKinley Avenue and North Palm Avenue, as well as on isolated parcels. Mixed Use corridors within the Specific Plan Area are located on the northern boundary along East Shields Avenue as well as on the eastern boundary along North Blackstone Avenue. Under current land use and zoning designations, the Specific Plan Area has an estimated capacity for 1,406,600 square feet of new non-residential floor area, which translates to just under 900,000 square feet of net new non-residential floor area when existing development on underutilized sites is accounted for. The Specific Plan Update would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on North Blackstone Avenue and East Shields Avenue. This would allow for ground-level commercial uses fronting public streets and sidewalks, while residential uses would be located above or behind, and would continue to promote the walkability of the District while allowing for greater residential development. The proposed zoning would result in approximately 1,385,700 square feet of non-residential development, with a net increase of 881,000 square feet after existing development is accounted

for. The land use changes and proposed zoning would decrease non-residential development capacity by an estimated 18,800 square feet compared with current land use designations, as shown in Table D, below.

Table D: Non-Residential Development Capacity-Underutilized Sites

Tower District Specific Plan Area	Existing Non-Residential Floor Area	Projected New Non-Residential Floor Area (gross)	Projected New Non-Residential Floor Area (net)
Existing Land Use Designations	506,732	1,406,600	899,800
Proposed Land Use Designations	506,732	1,385,700	881,000
Change	**-**	**-20,900**	**-18,800**

New jobs in the Specific Plan Area would be created by development of commercial, light industrial, and other employment-generating uses. New industrial jobs could occur in the existing light-industrial areas; however, no new industrial land use areas are proposed under the Specific Plan Update. The Fresno General Plan projected an additional 55,000,000 square feet of non-residential use capacity by the Horizon Year of 2035. The Tower District currently has 506,732 square feet of non-residential uses, with the projected growth under the existing land use designations to allow for 899,800 square feet. The proposed zoning would decrease non-residential development capacity by an estimated 18,800 square feet compared with current land use designations and would increase mixed use capacity within the District. Therefore, employment trends and non-residential development is not anticipated to substantially affect population and housing needs in the Specific Plan Area. Implementation of the Specific Plan Update would not induce substantial unplanned growth in an area by proposing new homes and businesses that are outside of the future projections. Additionally, no new transportation corridors, roads, or other infrastructure improvements are proposed that would induce substantial population growth under the proposed Specific Plan Update.

Although the number of residents generated under the proposed Specific Plan Update could exceed the number projected by the General Plan for the District, growth would occur incrementally over a period of approximately 20 years and would be guided by a policy framework that is generally consistent with many of the goals and objectives established in the Fresno General Plan and 2023–2031 Housing Element. As discussed in Appendix D, Tower District Specific Plan Update Consistency Analysis, the proposed Specific Plan Update is consistent with the goals and visions of the General Plan to create housing opportunities that enhance neighborhoods, facilitate infill growth in magnet corridors and along corridors, and plan for and zone employment areas for “healthy” businesses. Implementation of the Specific Plan Update would support citywide planning efforts. Therefore, the additional growth would be consistent with Citywide planning objectives, and the impact would be less than significant. This section will not be discussed in the EIR.

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

As discussed above under Criterion XIV.a), the Specific Plan Area contains a mix of uses, including a majority of residential land uses. The proposed project is intended to provide strategic and comprehensive guidance for making decisions regarding the Tower District's built environment and landscape character, land use and activities, public open space, community facilities, transportation and other forms of infrastructure. Future residential development would occur as part of the implementation of the Specific Plan Update, but it would not necessitate the displacement or removal of existing people or housing. Therefore, the impact would be less than significant. This section will not be discussed in the EIR.

XV. PUBLIC SERVICES

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

DISCUSSION

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

i. Fire protection?

The City of Fresno Fire Department (FFD) would provide fire protection services to the proposed project. There are 21 FFD fire stations in Fresno; Fire Station 09 located at 2340 North Vagedes Avenue is within the Specific Plan Area for the proposed project. Planned growth under the General Plan would increase calls for fire protection service in the city. Planned uses within the Specific Plan Area would be consistent with designations in both the General Plan and the Tower District Specific Plan and would not represent unplanned growth. Implementation of the proposed project could result in an incremental increase in the demand for fire protection services because of planned residential development within the Specific Plan Area. However, future development implemented by the Specific Plan Update would require the payment of a Fire Facilities Fee and a Development Impact Fee pursuant to Chapter 12, Article 4.9, of the City's Code of Ordinances to account for the potential impacts to fire services.

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

ii. Police protection?

The City of Fresno Police Department (FPD) provides police protection throughout the Specific Plan Area. The Police Department Patrol Division is divided into five policing districts within the Specific Plan Area falling under the jurisdiction of the Central Police District and the Central Police Station located at 3502 North Blackstone Avenue. Planned growth under the General Plan and the proposed project would increase calls for police protection service in the city.

The proposed project could result in an incremental increase in the demand for police protection services. However, future development implemented by the Specific Plan Update would be required to pay a Police Impact Fee and a

Development Impact Fee pursuant to Chapter 12. Article 4.8 of the City's Code of Ordinances to account for the potential impacts to police protection services.

The FPD would continue providing services to the Specific Plan Area and would not require additional personnel to serve the proposed project. The construction of new or expanded police facilities would not be required. Therefore, the proposed project would not result in a substantial adverse impact associated with the provision of additional police facilities or services, and impacts to police protection would be less than significant. This section will not be discussed in the EIR.

iii. Schools?

Any urban residential development occurring as a result of implementation of the proposed project would result in an impact on the Fresno Unified School District (FUSD) student capacity. The Specific Plan Area consists of an urban, built-up area that holds four elementary schools, one middle school, and one high school: Susan B. Anthony Elementary, Heaton Elementary School, Muir Elementary School, Dailey Charter School, Hamilton Middle School, and Fresno High School.

According to information provided by the FUSD, the generation rate for students for grades Kindergarten through 12th is 0.5407.[23] The student generation factor identifies the number of students per housing unit and provides a link between residential construction projects and projections of enrollment. Using the generation rate provided by FUSD, implementation of the Specific Plan Update would result in a total of approximately 290 more students than accounted for in the existing Specific Plan. As identified above, the Specific Plan Update would include an additional 537 residential units than projected in the existing Specific Plan.

The developer of future projects associated with the implementation of the Specific Plan Update would be required to pay appropriate school fees pursuant to Chapter 12, Article 8, of the City's Code of Ordinances at time of building permits to address potential impacts. Therefore, the impact would be less than significant. This section will not be discussed in the EIR.

iv. Parks?

The Parks and Public Facilities Element of the Specific Plan Update provides the framework for making decisions on how parks and other public facilities can better address the communities' needs within the Specific Plan Area. The project could result in an incremental increase in the demand for parks. This topic will be discussed further in the EIR.

[23] Fresno Unified School District (FUSD). 2024. 2024 Developer Fee Justification Study (accessed June 2025).

v. Other public facilities?

Development associated with implementation of the Specific Plan Update could also increase demand for other public services, including libraries, community centers, and public health care facilities. However, the proposed project would not result in significant unplanned population growth, which would increase the demand for these facilities, such that new facilities would be needed to maintain service standards, as these facilities are not currently overused and have the capacity to serve new demand. Additionally, the Specific Plan Update contains objectives and policies specifically aimed at providing for current and future need for public facilities within the Specific Plan Area.[24] Therefore, impacts to other public facilities would be less than significant. This section will not be discussed in the EIR.

XVI. RECREATION

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

DISCUSSION

a) 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?

The proposed project would involve increased residential uses that could result in an increase in the use of existing neighborhood and regional parks or other recreational

[24] City of Fresno. Date TBD. Tower District Specific Plan Update - Park and Public Facilities.

facilities, and may increase the demand of recreational facilities in the vicinity of the Specific Plan Area. This topic will be analyzed further in the EIR.

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

Development associated with the implementation of the Specific Plan Update could include or require the construction or expansion of existing public recreational facilities. This topic will be analyzed further in the EIR.

XVII. TRANSPORTATION

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

DISCUSSION

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

The Tower District Specific Plan was previously developed and adopted by the City in 1991. Most of the area within the Specific Plan Area is already developed and is not expected to change. However, the Specific Plan Update highlights underutilized sites

located along the District's commercial corridors. As such, the Specific Plan Update promotes more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on Blackstone Avenue and Shields Avenue focusing on vacant or underutilized areas/parcels. This would allow for more residential development compared to what has been proposed in the adopted specific plan. Additionally, these changes would affect other non-residential land uses as well, given the promotion of neighborhood mixed use and corridor/center mixed use designations within the Specific Plan Area.

The Specific Plan Area serves a variety of transportation modes, including motor vehicles (including trucks), bus transit, biking, and walking. The District's street pattern offers motorists, bicyclists, and pedestrians a variety of possible routes to get to local destinations. The connective street grid makes walking and bicycling routes more direct and disperses vehicle traffic among multiple routes rather than concentrating traffic on wide arterial roadways.

Bicycle improvement programs have emerged in recent years, and bicycle-related infrastructure improvements have been implemented in the Specific Plan Area. The Fresno Area Express (FAX) provides bus service in Fresno and surrounding communities. As of 2024, the Specific Plan Area is served by eight standard bus routes and one bus rapid transit (BRT) high-frequency route along Blackstone Avenue. FAX also offers a paratransit "Handy Ride" service designed to meet the transportation needs of persons with limited ability, who would find it difficult to use FAX's fixed-route bus system.

Fresno General Plan's Mobility and Transportation Element calls for "Complete Streets," which are designed to serve all users, including pedestrians, bicyclists, motorists, and transit users. The Fresno Active Transportation Plan identifies multiple corridors in the Specific Plan Area as high and medium priority for bicycle improvements, and areas in the southeast of the Specific Plan Area as high priority for sidewalk gaps. The Specific Plan Area features separated bikeways (Class IV facilities) along some collector streets and arterials, such as along Van Ness/Maroa, Futon/ Wishon, Palm, and Belmont. The City's Active Transportation Plan (ATP) prioritizes bike-related investments, such as "priority bikeway" improvements along Fulton/Wishon, and planned improvements along Van Ness Avenue and McKinley.

The Specific Plan Update would implement goals and policies to promote complete streets designs, enhance bicycle and pedestrian infrastructure, and facilitate transit improvements. The objectives and policies proposed by the Specific Plan Update are included in Appendix D. Therefore, the Specific Plan Update would be consistent with the existing programs, plans, ordinances and policies addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

To determine whether the Specific Plan Update would result in a requirement for preparation of a Transportation Impact Study (TIS) or Level of Service (LOS) analysis, a trip generation comparison analysis was conducted. The land use quantities for projected new units (for residential uses) and areas (non-residential uses) under the

existing land use designations and the proposed Specific Plan Update were utilized to determine the future traffic generation potential. The existing conditions reflect those that were originally implemented by the 1991 Specific Plan and approved General Plan and currently remain. Trip generation for the existing land uses and Specific Plan Update was developed using trip rates for appropriate land use codes included in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition), Setting/Location - 'General Urban/Suburban.' The existing land uses are anticipated to generate 36,054 net new daily trips, with 2,581 a.m. peak hour trips and 3,720 p.m. peak hour trips within the Specific Plan Area. The proposed Specific Plan Update is anticipated to generate 39,055 net new daily trips, with 2,752 a.m. peak hour trips and 3,919 p.m. peak hour trips. Therefore, the Specific Plan Update would generate 3,001 additional daily trips, including 171 additional a.m. peak hour trips and 199 additional p.m. peak hour trips compared to the land uses allowed under the existing conditions.

Since the Specific Plan Update is anticipated to generate additional trips as compared to the existing land use designations, further policy-based evaluation was conducted to determine the requirements for a TIS.

The requirement of a TIS, or LOS analysis, is typically derived from the individual jurisdictions' general plan circulation and mobility element, which includes goals and policies related to regional transportation efficiency. Therefore, the City's General Plan Policy document (City of Fresno General Plan, adopted December 2014), was evaluated to determine the goals and policy-based recommendations.

The City's Mobility and Circulation Policy MT-2-i is the principal determinant policy for requirement of a TIS. As recommended in Policy MT-2-i, the requirement of TIS is dependent on the project's location in the types of Traffic Impact Zones (TIZ) and number of peak hour trips. As such, the following are the TIS peak hour trip and LOS standard requirements for all four types of TIZ:

- TIZ I: Downtown Planning Area: Maintain a peak hour LOS standard of F and better for intersections and roadway segments. Projects with 200 or more peak hour trips would require a TIS.

- TIZ II: Currently Developed and Encourage Infill: Maintain a peak hour LOS standard of E and better for intersections and roadway segments. Projects with 200 or more peak hour trips would require a TIS. Per Figure MT-4 of the City's General Plan Mobility and Circulation element, the TDSP is within TIZ II, and the specific plan update would be required to follow these thresholds.

- TIZ III: Areas adjacent to City boundaries but within Sphere of Influence: Maintain a peak hour LOS standard of D and better for intersections and roadway segments. Projects with more than 100 peak hour trips would require a TIS.

- TIZ IV: Southern Employment Areas within and planned by the City: Maintain a peak hour LOS standard of E and better for intersections and roadway segments. Projects with 200 or more peak hour trips would require a TIS.

As previously noted, the Tower District is located within TIZ II. The Specific Plan Update is anticipated to generate a maximum of 199 additional peak hour trips compared to the adopted specific plan, which is less than the 200 peak hour trip threshold requirement for TIS or detailed LOS analysis. As such, given the Specific Plan Update would result in less than 200 additional peak hour trips compared to the adopted specific plan, a TIS is not required for the proposed project per the City's General Plan goals and policies.

However, it should be noted that though the Specific Plan Update may not require any in-depth LOS analysis, individual future projects within the Specific Plan Area that are facilitated by the Specific Plan Update and meet the requirements for a TIS or a detailed LOS analysis Caltrans and safety analysis, would be required to conduct such studies at a project level in order to determine the individual project-related potential operational deficiencies, and recommend/implement operational improvements for eliminating such operational deficiencies.

Therefore, the proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The impact would be less than significant and no mitigation is needed. This section will not be discussed in the EIR.

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

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

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

State CEQA Guidelines Section 15064.3(b)(4) states that "[a] lead agency has discretion to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental

document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section."

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

The City of Fresno VMT Thresholds Section 3.1, regarding Development Projects, states that if a project constitutes a General Plan Amendment or a Rezone, none of the screening criteria may apply, and that the City must evaluate such projects on a case-by-case basis. The proposed project is a specific plan and qualifies as a land use plan. Therefore, the project's VMT analysis needs to be prepared using the criteria set forth in the City's CEQA Guidelines for VMT Thresholds (VMT Guidelines) adopted June 25, 2020, for land use plans. The City's VMT Guidelines require that for land use plans, the project's VMT per capita or/and VMT per employee under forecast/cumulative scenario be compared to the corresponding base year VMT per capita/employee to determine whether the project would have a significant VMT impact.

For projects that are not screened out, a quantitative analysis of VMT impacts must be prepared and compared against the adopted VMT thresholds of significance. The Fresno VMT Thresholds document includes thresholds of significance for development projects, transportation projects, and land use plans. These thresholds of significance were developed using Fresno County as the applicable region, and the required reduction of VMT (as adopted in the Fresno VMT Thresholds) corresponds to Fresno County's contribution to the statewide greenhouse gas (GHG) emissions reduction target. In order to reach the statewide GHG reduction target of 15 percent, Fresno County must reduce its GHG emissions by 13 percent. The method of reducing GHG by 13 percent is to reduce VMT by 13 percent as well.

The City's adopted thresholds for development projects correspond to the regional thresholds set by the Fresno Council of Governments (COG). For residential and non-residential (except retail) development projects, the adopted threshold of significance is a 13 percent reduction, which means that projects that generate VMT in excess of a 13 percent reduction from the existing regional VMT per capita or per employee would have a significant environmental impact. Projects that reduce VMT by more than 13 percent are less than significant. For retail projects, the adopted threshold is any net increase in VMT per employee compared to existing VMT per employee.

Quantitative assessments of the VMT generated by a development project are determined using the COG Activity Based Model (ABM), which is a tour-based model.

For mixed use projects, the City of Fresno VMT Thresholds state that the VMT can be estimated based on each component of the project, independently, after taking credit for internal trip capture. It also confirms that mixed use projects must use the Fresno COG's Activity Based Model. The VMT per capita (for the residential component) and the total VMT (for the retail component) is then compared against the relevant threshold.

The first step in preparation for this analysis was to update the traffic analysis zones (TAZs) in the model that includes the land use changes within the TDSP area. The Tower District is comprised of approximately 22 model TAZs. It is estimated that the adopted specific plan is considered built out in the model future scenario, and the socioeconomic data within the Tower District TAZs reflect the adopted specific plan build-out condition.

As previously mentioned, the majority of the upzoning and the land-use changes are on North Blackstone Avenue and East Shields Avenue focusing on vacant or underutilized areas/parcels. As such, these changes are concentrated on selected TAZs within the TDSP area. As such, the next step of the analysis was to incorporate the proposed changes in the specific plan. The current project proposes changes in vacant and underutilized parcels identified as part of the capacity analysis. These parcels where land use designation change is proposed as part of the project were spatially overlayed with the Fresno COG ABM TAZ boundary to identify the corresponding ABM TAZs in the model. It was determined that these changes are included in 10 TAZs within the TDSP area. Since no roadway network changes are being proposed as part of this project, no roadway network was updated for this analysis.

As previously stated, for land use plans, the City's VMT Guidelines recommend using VMT per capita to evaluate residential land uses and VMT per employee to evaluate non-residential land uses. As previously stated, the proposed project would result in 537 new dwelling units and a reduction in 18,800 sf retail/commercial spaces. Given the nominal reduction in retail/commercial compared to the allowable commercial/retail within the Specific Plan Area, this reduction was estimated to reduce nominal employment and retail opportunities and not estimated to change in VMT per employee metric for the entire specific plan area. Therefore, though the model was updated to reflect the changes in commercial/retail land uses prior to model run, no VMT per employee metric was calculated. The VMT per capita value was calculated for the entire Tower District Specific Plan area. VMT metrics for Fresno COG ABM include two components, internal-internal (II) and internal-external/external-internal (IX/XI) VMT. Both II VMT and IX/XI VMT were included in the estimation of overall project VMT per capita.

Table E shows the regional threshold and project VMT per capita rate for the proposed project. As shown in Table E, the proposed project would not constitute any significant VMT impact. Detailed VMT calculation for the project is included in the Transportation Memorandum, Appendix I.

Table E: Regional Threshold and Project VMT per Capita Comparison

VMT Metric	Tower District Specific Plan (project)	Significant Threshold *	Difference	Significant Impact
VMT per capita	11.4	14.0	-2.6	NO

Source: Fresno COG ABM
**Threshold obtained from City of Fresno CEQA Guidelines for VMT Thresholds, June 25, 2020 (87% of existing County avera*
***VMT per capita estimate includes internal-internal (II) and internal-external (IX) VMT*

As a result, the proposed project would not result in a VMT impact and would not conflict or be inconsistent with *State CEQA Guidelines* Section 15064.3(b). Therefore, the impact would be less than significant and no mitigation is required. This section will not be discussed in the EIR.

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)?

The project would not substantially alter pedestrian or vehicle access through the Specific Plan Area or introduce incompatible design features or equipment that would substantially increase the risk of hazards.

The Specific Plan Update would implement goals and policies to promote complete streets designs, enhance bicycle and pedestrian infrastructure, and facilitate transit improvements. Therefore, the proposed project would not substantially increase hazards due to a design feature, and the impact would be less than significant. This section will not be discussed in the EIR.

d) Would the project result in inadequate emergency access?

The Specific Plan Area is an urban built-up area made up of commercial, residential, mixed-use, and a small light industrial area. The proposed project includes updates to the Specific Plan in order to provide strategic and comprehensive guidance for making decisions regarding the District's built environment and landscape character, land use and activities, public open space, community facilities, transportation and other forms of infrastructure. Emergency vehicles would have continued access to the Specific Plan Area and emergency access would not be modified as a result of the proposed project. Furthermore, roads adjacent to the Specific Plan Area would not require closure during project construction. Therefore, the impact would be less than significant. This section will not be discussed in the EIR.

XVIII. TRIBAL CULTURAL RESOURCES

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

DISCUSSION

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

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

As previously discussed in Section 4.3, Cultural Resources, of the EIR, city of Fresno retains many of its historically significant buildings and structures through listings on various registers; local and national. Within the Specific Plan Area, data from the record search conducted at the Southern San Joaquin Valley Information Center (SSJVIC) indicates that there are 44 recorded resources in the Specific Plan Area. Of these 44 historic resources, 40 records are historic structures. The remaining four historic resources include two railroads, an overcrossing, and a debris and associated trash deposit.

The proposed project would support mixed-use development in targeted areas by developing or redeveloping vacant and underutilized parcels within the Specific Plan Area. Future development under the proposed project would include site preparation, grading, demolition, and other various construction activities which have the potential to result in an adverse change to a historic resource through demolition, destruction, alteration, or relocation.

While implementation of the Historic Preservation Ordinance, along with applicable State policies, General Plan objectives and policies, and the proposed Specific Plan Update objectives and policies would reduce potential impacts to historical resources, demolition of historic resources could still be necessary as part of implementation of the proposed project due to health and safety concerns.

As discussed in Section 4.3 of the EIR, impacts from future development within the Specific Plan Area could impact historic resources, unknown archaeological resources including Native American artifacts, and human remains. Impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures CUL-1a, CUL-1b, CUL-2, and CUL-3.

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

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

Additional information may also be available from the California Native American Heritage Commission's (NAHC) Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Assembly Bill (AB) 52, which became law on January 1, 2015, requires that, as part of the CEQA review process, public agencies provide early notice of a project to California Native American Tribes to allow for consultation between the tribe and the public agency. The purpose of AB 52 is to provide the opportunity for public agencies and tribes to consult and consider potential impacts to Tribal Cultural Resources (TCRs), as defined by PRC Section 2107(a). Under AB 52, public agencies shall reach out to California Native American Tribes that have requested to be notified of projects in areas within or which may have been affiliated with their tribal geographic range. City staff consulted with the Native American Heritage Commission (NAHC) in July 2025. The NAHC provided a list of 10 Native American tribes to consult. The City sent letters to each of the tribes in July 2025. Appendix J of the EIR includes the Native American consultation information. No consultation requests have been received at the time of publication of the Draft EIR.

If any artifacts are inadvertently discovered during ground-disturbing activities, existing federal, State, and local laws and regulations would require construction activities to cease until such artifacts are properly examined and determined not to be of significance by a qualified cultural resource professional. In addition, Mitigation Measures CUL-1a, CUL-1b, CUL-2, and CUL-3, described in Section 4.3 of the EIR, would apply to the project and would reduce potential impacts to unknown archaeological historical resources to less than significant.

XIX. UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effect?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

DISCUSSION

a) 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?

The Tower District is supported by an established infrastructure network that serves the existing land uses. Implementation of the Specific Plan Update could result in an increase of 537 projected residential units and a decrease in 18,800 square feet of non-residential uses, as compared to the existing plan and General Plan land use designations. This would not result in a significant increase in wastewater annually as compared with the baseline General Plan. The Department of Public Utilities has determined that adequate sanitary sewer and water services would be available to serve the proposed project subject to the payment of any applicable connection charges and/or fees and extension of services in a manner that is compliant with the

Department of Public Utilities standards, specifications, and policies.

Impacts to storm drainage facilities have been previously discussed in Section X, Hydrology and Water Quality. The Specific Plan Area is an urban built-up area with existing stormwater management infrastructure. Any new construction of or modifications to the existing stormwater management infrastructure as a result of implementation of the proposed project would be required to comply with the City's grading plan check process, the Fresno Metropolitan Flood Control District (FMFCD) Storm Drainage and Flood Control Master Plan (SDFCMP), and requirements of the NPDES General Construction Permit. As such, future construction of storm drainage facilities would be consistent with construction and design standards for the City, and the impact would be less than significant.

Electric power, natural gas, and telecommunication facilities would require connections to the Specific Plan Area. However, because the Specific Plan Area is located within an urbanized area with existing facilities in close proximity, connection to these facilities would not cause significant environmental effects. As a result, implementation of the Specific Plan Update would not result in the relocation or construction or new or expanded utilities, which could cause significant environmental effects, and the impact would be less than significant. This section will not be discussed in the EIR.

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?

As discussed above, the Department of Public Utilities would supply water throughout the Specific Plan Area. Based on the 2020 Urban Water Management Plan, , the water supplies for the City by horizon year 2045 are at 357,300 acre-feet per year (afy) and adequate to meet the projected demands of 241,447 afy. The Specific Plan Update proposed land uses will result in an additional water demand of approximately 80 acfy, and can easily be covered with the projected surplus. Additionally, during a single dry year drought and a multiple dry year drought, the 2020 UWMP projects a varying surplus, at a minimum of 11,000 afy, which is enough to cover the proposed project's impact on water demands. The City's projected water supply surpluses through the build out year of 2046 have the capacity to meet the projected increased demand of 80 afy during normal years, during single dry years, and during multiple dry years. As a result, there would be sufficient water supply for the proposed project, and any impacts would be less than significant. This section will not be discussed in the EIR.

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

The proposed project is not expected to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB). The City of Fresno

owns and operates two wastewater treatment facilities; the Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF), and the North Fresno Wastewater Reclamation Facility (North Facility). The RWRF currently has a capacity of 91.5 million gallons per day (mgd). The North Facility has a capacity of 0.71 mgd. The proposed project is not expected to exceed the capacity of existing wastewater-related services and facilities. Therefore, the impact would be less than significant. This section will not be discussed in the EIR.

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?

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

The American Avenue Landfill (i.e., American Avenue Disposal Site 10-AA-0009) has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day.[25]

Other landfills within the County of Fresno include the Clovis Landfill (City of Clovis Landfill 10-AA-0004) with a maximum remaining permitted capacity of 7,740,000 cubic yards, a maximum permitted throughput of 2,000 tons per day, and an estimated closure date of 2047.[26]

Given the available capacity at the landfills, the additional solid waste generated by the proposed project is not anticipated to cause the facility to exceed its daily permitted capacity. As such, the proposed project would be served by a landfill with sufficient capacity to accommodate the project's waste disposal needs, and impacts associated with the disposition of solid waste would be less than significant. This section will not be discussed in the EIR.

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

Future development associated with implementation of the Specific Plan Update would comply with the California Green Building Standards Code (CALGreen), the City's Construction and Demolition (C&D) Waste Management Guide, and with waste management policies and recommendations from the City's General Plan The proposed project would dispose of waste in accordance with applicable federal, State, and local recycling, reduction, and waste requirements and policies. Therefore, the proposed project would not conflict with federal, State, and local management and

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25 California Department of Resources Recycling and Recovery (CalRecycle). Website: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/352 (accessed May 30, 2025).

26 Ibid.

reduction statutes and regulations related to solid waste, and the impact would be less than significant. This section will not be discussed in the EIR.

XX. WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

DISCUSSION

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

The proposed project would not interfere with any emergency evacuation routes within the City of Fresno or an adopted emergency response plan. Implementation of the Specific Plan Update would be required to maintain roadways with adequate emergency access and meet all City standards established in the General Plan. Therefore, the impact would be less than significant. This section will not be discussed in the EIR.

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

The Specific Plan Area is in an urban area and is not located within a Very High Fire Hazard Severity Zone (VHFHSZ).[27] The Specific Plan Area does not possess physical characteristics that would exacerbate wildfire risks. Therefore, the implementation of the Specific Plan Update would not exacerbate wildfire risks and potentially expose project occupants to pollutants from a wildfire. The impact would be less than significant. This section will not be discussed in the EIR.

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?

The Specific Plan Area is located in a developed area of the City of Fresno, and it would not require the installation or maintenance of infrastructure that would increase the risk of fire or result in temporary or ongoing environmental impacts, outside of what is already implemented according to City plans. As a result, a less than significant impact would occur. This section will not be discussed in the EIR.

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?

The Specific Plan Area is located centrally in the city of Fresno, and is relatively flat area and is not located adjacent to any hills. In general, the potential for land sliding or slope failure in Fresno is very low and the Specific Plan Area would not be susceptible to landslides. The Specific Plan Area is also not located on a flood hazard zone and would not be susceptible to flooding because of post-fire drainage changes.

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[27] California Department of Forestry and Fire Protection (CAL FIRE). 2008. Fresno County Very High Fire Hazard Severity Zones in LRA. Website: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/ (accessed March 14, 2025)

As discussed above, the project is not located within a VHFHSZ. Therefore, implementation of the Specific Plan Update would not expose people or structures to significant risks, and a less than significant impact would occur. This section will not be discussed in the EIR.

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APPENDIX D

SPECIFIC PLAN UPDATE OBJECTIVES AND POLICIES AND CONSISTENCY ANALYSIS

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TABLE 1: DRAFT TOWER DISTRICT SPECIFIC PLAN UPDATE - OBJECTIVES AND POLICIES

Conservation and Historic Preservation	
Objective CHP 1: Recognize and Protect the Tower District's Historic and Cultural Identity	
Policy CHP 1.1: Develop a historic context statement for the Tower District.	A comprehensive historic context statement should be developed by a qualified cultural resource professional, which describes: the district's physical, social, and cultural development; identifies physical patterns associated with those developments; and recommends eligibility criteria and integrity thresholds for the designation of historic resources. The context statement should provide a consistent foundation for decisions about the identification, evaluation, and designation of historic properties in the community. The historic context statement should be developed in accordance with the standards and guidance provided by the National Park Service and the California Office of Historic Preservation. The historic context statement should be developed with the input of community members, local historic and cultural organizations, local social and educational institutions, and should consider the large body of previous historic resources studies developed for the City of Fresno, including studies within the Tower District. Recognize that the historic context statement will be used to evaluate whether a potential historic resource should be designated, and that, by identifying character defining features within subdistricts, the statements can guide the development of context-appropriate development standards and guidelines. Also note that the historic context statement should address contributions by persons and populations that have previously been overlooked or marginalized, such as women, communities of color, and the LGBTQ+ community.
Policy CHP 1.2: Protect the Tower District's cultural history and resources.	Using historic context statements as a guide, continue to apply standards and procedures that regulate the alteration of designated historic resources, whether buildings and/or site features, and seek to prevent their loss. Require the character of infill development to comply with the Tower District Standards & Guidelines, to ensure compatibility within its historic context. In accordance with State Law, adopt context-appropriate design standards and guidelines, in recognition that some new housing projects may not be exempt from discretionary review. Note that incompatible new construction could distract from historic buildings, especially when adjacent to historic buildings, and could alter the character within historic districts. Also reinforce the historic character of the Tower District public streets and open spaces, by establishing design standards and guidelines for features like lighting, furnishings, trees, and landscape.
Policy CHP 1.3: Conduct new historic resources survey(s) of the Tower District.	Update historic resource surveys for the area. An updated historic resource survey should be used to establish a new baseline for historic preservation within the Tower District.
Policy CHP 1.4: Revive designation efforts for previously proposed historic districts.	The 1991 Tower District Specific Plan proposed several areas as potential historic districts that have not been formally listed or designated in the intervening years. The identified potential historic districts include: • Adoline-Palm District (proposed) • Terrace Gardens District (proposed) • Wilson's North Fresno Tract District (proposed) • Lower Fulton-Van Ness (proposed) • Bungalow Court District (proposed) • Area bounded by Olive and Van Ness, down to Elizabeth and San Pablo – east of Van Ness • South of Belmont, West of Broadway. Prioritize these areas for historic resource surveys and the evaluation of designated and potential resources, to provide for their potential designation as historic districts.

TABLE 1: DRAFT TOWER DISTRICT SPECIFIC PLAN UPDATE - OBJECTIVES AND POLICIES

Policy CHP 1.5: Initiate a study for the historic designation of the follow areas: • Area bounded by Olive and Van Ness, down to Elizabeth and San Pablo – east of Van Ness • South of Belmont, West of Broadway	Prioritize these areas for historic resource surveys and the evaluation of designated and potential resources, to provide for their potential designation as historic districts.
Policy CHP 1.6: In keeping with the historic designation status, protect the Tower Theater as a community asset in alignment with the historic preservation ordinance.	
Policy CHP 1.7: Evaluate designation of potential resources in the public right-of-way.	Using historic resource survey(s) and community engagement for guidance, identify and evaluate public realm design elements that may be eligible for historic designation. These elements should be researched for their historic significance and, if eligible, nominated for designation accordingly. Elements located in the Tower District that have been discussed as [potential resources include but are not limited to the following: • Historic hitching posts • Van Ness Avenue “pineapple” streetlights • Historic signage • Sidewalk WPA stamps • Stone gateway features on palm and Van Ness
Policy CHP 1.8: Highlight assets important to community identity.	Buildings, structures, objects and sites that are not eligible for listing or designation as historic resources may still contribute to the character and identity of the community. These can include: • Buildings that house or once housed long-term local businesses or institutions. • Neighborhood-serving commercial nodes such as Weldon and Echo avenues near Fresno High School, the intersection of Van Ness and Floradora (Van Ness Village), and Fulton Stret (south of Olive). • Street features such as streetlights, street signs, street trees, sidewalk parkways, and street medians not distinguished as historically significant, • Recognize historic businesses and institutions which continue to operate in the district. These and other features may be highlighted using signage, maps, online resources, walking tours or other means.
Policy CHP 1.9: Elevate the visibility of historic elements in the Tower District.	Actively promote historic resources in the Tower District through walking tours, brochures, online resources, interpretive signage, plaques and displays. Use the District’s rich history as a draw for economic activity, including historic tourism, and community enjoyment.
Policy CHP 1.10: Heritage Trust and Historic Preservation Fund.	Study the creation of a City of Fresno Heritage Trust and Historic Preservation Fund to support acquisition, rehabilitation, and maintenance of historic resources. Evaluate the feasibility of a right-of first refusal program for the trust to acquire historic properties.
Policy CHP 1.11: Historic museum	Support the establishment of a museum in the Tower District, representing the Tower District, using a historic building or other building as an interactive place of learning.

TABLE 1: DRAFT TOWER DISTRICT SPECIFIC PLAN UPDATE - OBJECTIVES AND POLICIES

Objective CHP 2: Maintain and Enhance Neighborhood Character-Defining Elements	
Policy CHP 2.1: Provide historic preservation information, training and accountability.	Provide information and training to help community members, new buyers, real estate professionals, government officials, staff, and other stakeholders to better understand the benefits, responsibilities, and potential difficulties of owning and managing historic properties. Work to preserve historic properties that have fallen into disrepair due to the neglect of their owners. Information readily available and helpful to community members should include the following: • Basics regarding historic context, significance, integrity, and eligibility for historic listing on both local and national registers. • Processes and requirements for nomination and designation of historic resources. • Conformance with existing preservation standards and guidelines. • Available preservation incentives including Mills Act contracts, use of the California Historic Building Code, and technical assistance. • Environmental benefits of reusing existing materials and infrastructure. • Potential economic benefits of preservation, by creating new opportunities for education, cultural activities, and a recognizable destination. • Education to City leaders, community members, real estate professionals and other stakeholders on the value of historic preservation.
Policy CHP 2.2: Protect and maintain existing character-defining streetscape elements.	Provide protection and maintenance, including replacement when necessary, of existing character-defining streetscape elements such as streetlights, tree lawns, and street trees in addition to elements as referenced in CHP 1.5. Consider reinstallation of elements that have been removed such as granite curbs, “pineapple” streetlights and other features.
Policy CHP 2.3: Accessory Dwelling Units (ADUs) in historic properties	Work with the Historic Preservation Commission and the Tower Design Review Committee to create ADU design standards to maintain ADU compatibility within historic districts.
Policy CHP 2.4: Affordable housing	Work with affordable housing developers to consider acquiring historic and/or vacant buildings for the creation of affordable, multifamily housing through appropriate modernization and adaptive reuse.
Objective CHP 3: Use Zoning and Design Standards and Guidelines to Support Conservation of Historic Neighborhood Character	
Policy CHP 3.1: Refine design standards and guidelines.	Work with the Historic Preservation Commission and the Tower Design Review Committee to craft design standards and guidelines as may be used for historic properties, districts, and centers. Recognize that California law has eliminated discretionary authority over the review of qualifying multifamily housing and residential solar projects and that, in such instances, objective standards are needed to maintain compatibility.
Policy CHP 3.2: Pedestrian-oriented commercial development.	Prohibit development of suburban-style, strip commercial uses. Establish development standards and guidelines that support the creation of new and maintenance of existing pedestrian-oriented storefronts, by regulating ground-level use, entry, and window patterns.
Policy CHP 3.3: Encourage the rehabilitation and adaptive reuse of historic buildings.	Continue to establish streamlined approval processes, clear standards, guidance, and example plans for the reuse of historic buildings to allow alterations that maintain the building’s historic significance and integrity. Standards should address typical reuse strategies such as additions to historic buildings, adaptive reuse of historic buildings for new uses, conversion of historic single-family properties for multi-family use, and the construction of ADUs. These standards can be tailored to specific property types within the Tower District.
Policy CHP 3.4: Continue to pursue Code Enforcement to ensure historic resources are adequately maintained.	
Objective CHP 4: Coordinate Plans and Programs of the Tower District and Downtown Fresno to Emphasize the Historic Connection	
Policy CHP 4.1: Connection to Downtown.	In all facets of development including streetscape, land-use and urban form, reinforce the historic relationship between Fulton and Van Ness Corridor and Downtown, through building form, street design, and signage.

TABLE 1: DRAFT TOWER DISTRICT SPECIFIC PLAN UPDATE - OBJECTIVES AND POLICIES

Land Use	
Objective LU 1: Maintain and Enhance Character-Defining Elements Associated with the Tower District and Its Various Subdistricts and Corridors	
Policy LU 1.1: Require that new housing respects the character of existing housing stock.	Incorporate character-defining elements in development standards and guidelines such as using similar materials, cadence/modulation, fenestration and entry patterns, cornice lines, massing, roof form, building "build-to lines," or architectural features and motifs.
Policy LU 1.2: Implement proactive code enforcement as violations occur, particularly as they relate to public safety and the condition of buildings and landscaping.	
Objective LU 2: Retain and Expand the Existing Inventory of Affordable Housing in the Tower District to Address Displacement of its Residents.	
Policy LU 2.1: Promote mixed-use development along commercial corridors.	Along the Tower District's corridors, promote mixed-use development such that ground level commercial uses front onto public streets and sidewalks, while residential uses are located above commercial uses ("vertical mixed use") and/or are located behind commercial uses ("horizontal mixed use"). Specifically, enable high-intensity development along Blackstone Avenue between Clinton and Bremer (except along Susan B. Anthony frontage). Emphasize commercial frontage where commercial frontage now exists and at intersections, such as to create a major mixed-use node at Shields and Maroa. Allow ground-floor residential in locations that are not adjacent or nearly adjacent to existing commercial frontage.
Policy LU 2.2: Enable development of well-designed "Missing Middle" Housing within single-family neighborhoods and other areas.	Allow and encourage small multiplex buildings with six or less units on infill sites where their massing can have a positive effect on "density tolerant" sites that include street corners, along collector and arterial streets, adjacent to open space, and on larger properties where building mass can transition in scale to adjacent single-family homes.
Policy LU 2.3: Discourage the redevelopment of existing residential uses for commercial-only development.	Do not allow auto-oriented uses, such as drive-through restaurants, and develop standards to minimize their disruption to walkability if they are conditionally allowed. Where residential units are lost to commercial development, require that new units replace not less than the number of units lost, as referenced in the Housing Crisis Act of 2019.
Policy LU 2.4: Support reinvestment in older building stock to support affordability and maintain neighborhood character.	Provide building rehabilitation programs and encourage community land trusts (CLTs) and/or forms of collective ownership.
Policy LU 2.5: Encourage the application of citywide anti-displacement policies within the Tower District.	Continue to work with residents to understand displacement as it occurs and how it can be better addressed. Develop strategies to strengthen neighborhood stabilization policies, such as establishing a local resource center to facilitate access to tenant protection and buying assistance programs.
Policy LU 2.6: To be consistent with existing use, rezone existing legal non-conforming multi-family residential uses with property owner support to the density-appropriate zoning district.	Rezone property with legally non-conforming multifamily residential uses to zoning consistent with the existing use. Require prior review and comment by the Tower District Specific Plan Implementation Committee and the Tower District Design Committee.
Policy LU 2.7: Provide resources and education to Tower District residents of programs available such as eviction protection and buyer assistance programs, as well as other resources the City may have available.	
Objective LU 3: Encourage Appropriate Mixed-Use and Multifamily Development by Reducing Obstacles to Feasibility of Potential Development Projects	
Policy LU 3.1: Streamline residential project review through the adoption of objective development standards and environmental clearance as required by California law.	

TABLE 1: DRAFT TOWER DISTRICT SPECIFIC PLAN UPDATE - OBJECTIVES AND POLICIES

Policy LU 3.2: To align with State Law, enact regulatory changes to reduce costs and risks associated with mixed-use and multifamily development, such as to reduce parking requirements where justified by TDM measures (see Chapter 6 of the Specific Plan Update) and anticipated parking demand, and provide greater flexibility in addressing private open space requirements.	New developments will be required to comply with Fresno Municipal Code parking standards and applicable State law.
Policy LU 3.3: Consider ways to increase potential residential yields, such as by increasing allowable densities and building heights as appropriate.	Pursue increasing the allowable building height limits in the Commercial Main Street (CMS) and Neighborhood Mixed-Use (NMX) Zone to 45 feet to allow three-story mixed-use buildings with sufficient ceiling height for ground-floor retail feasibility. Consider the height of landmark structures (i.e. Tower Theatre) and incorporate transitional height requirements adjacent to those structures.
Policy LU 3.4: Emphasize placemaking in Tower District.	Emphasize placemaking through development to make the Tower District a desirable place to live and invest in, such as to provide a mix of local commercial and cultural destinations, street-facing architecture, and character-defining elements that emulate the District's historic character. Also encourage public interventions that result in more pedestrian-friendly streets and easy access to parks.
Policy LU 3.5: Actively increase the affordable housing inventory in Tower District.	Continue to pursue potential funding sources for constructing affordable housing, such as government and philanthropic grants. As Citywide resources become available, create new programs to assist with development project financing, such as a revolving loan fund.
Policy LU 3.6: Proactively identify underutilized parcels for affordable housing and mixed-use development where appropriate.	Evaluate underutilized parcels for the development of workforce and affordable housing, such as to encourage the creation of mixed-use nodes at the Shields/Maroa and Palm/McKinley intersections and replace low-intensity uses along Shields (between Fruit and Del Mar) with mixed use and multifamily development.
Objective LU 4: Maintain and Enhance Existing and Promote new Neighborhood-serving Pedestrian-oriented Retail Service Businesses Within the Tower District, which is Consistent with Historic Patterns of Development. Make Commercial Areas Safe, Convenient and Welcoming Focal Points for Neighborhood Activities and Public Life.	
Policy LU 4.1: Support small commercial businesses.	To support neighborhood promotion, remove barriers for neighborhood festivals and events, and encourage heritage tourism.
Policy LU 4.2: Require commercial projects to place pedestrian oriented storefronts along public sidewalks and restrict parking along public sidewalks.	Generally, locate surface parking behind street-facing buildings and allow larger stores midblock where they can face off-street parking.
Policy LU 4.3: Do not allow auto-oriented uses, such as drive-through restaurants, in the Commercial Main Street zone district.	Develop standards to minimize the disruption to walkability in other zone districts, where they are conditionally allowed.
Policy LU 4.4: Emphasize the creation of active frontage on Palm Avenue between McKinley Avenue and Olive Avenue.	Consider the addition of Accessory Dwelling Units (ADUs) frontage requirements along Palm Avenue to create an engaging street frontage through beautification efforts with property owner support.
Policy LU 4.5: Use design standards and guidelines to promote safety for both daytime and nighttime (after dark) activities.	Use design standards and guidelines to require street-facing windows/entrances, wall-mounted lighting, and to avoid obstructions to provide greater visibility between activities for "natural surveillance."
Policy LU 4.5: Encourage grocery stores that offer fresh produce and other healthy foods. Consider incentives such as streamlined permitting for Healthy Food Grocers.	

TABLE 1: DRAFT TOWER DISTRICT SPECIFIC PLAN UPDATE - OBJECTIVES AND POLICIES

Objective LU 5: Balance Neighborhood Serving Commercial Needs and Quality of Life with the Cultivation of a Successful Cultural and Entertainment District.	
Policy LU 5.1: Encourage restrooms that are available to the public, such as in public buildings and parking garages.	Require portable toilets at significant events.
Policy LU 5.2: Utilize zoning standards to mitigate conflicts and potential noise impacts, and support business owners by providing clear sound mitigation guidelines and strategies to ensure code compliance.	Appropriate noise mitigation approaches will be proposed.
Policy LU 5.3: Encourage increased police presence at night and during major events.	
Policy 5.4: Support future street vending programs that establish consistent procedures and appropriately incorporate street vendors into the Tower District neighborhood.	
Policy LU 5.5: Support the Tower Marketing Committee or other Business Improvement District (BID) or Public Business Improvement District (PBID) to support on-going commercial area marketing, organization of festivals and other events, enhanced landscape maintenance and sidewalk cleaning, graffiti abatement, and other beneficial programs.	
Objective LU 6: Ensure compatibility among light industrial and residential uses in the Tower District.	
Policy LU 6.1: Maintain industrial zoning for existing industrial uses, while striving to mitigate their negative effects on residential areas.	Mitigation strategies may include the following: • Engage industrial business owners and nearby residents in dialogue regarding needs and impacts. • Consider expanding the City's noticing system to increase transparency and civic participation. • Consider ways to reduce and mitigate truck traffic on surrounding residential streets, as described in Chapter 4: Circulation. • Explore regulatory strategies that would encourage light industrial uses to adopt improved technology to reduce neighborhood nuisances. • Encourage light industrial uses to adopt improved technology. • Provide compatible transitions between light industrial and surrounding uses and consider limiting further expansion of light industrial zoning.
Policy LU 6.2: Allow light industrial uses to have neighborhood-serving retail.	
Policy LU 6.3: Support the San Joaquin Valley Air Pollution Control District in monitoring emissions.	Regularly monitor the data collected by the California Air Resources Board (CARB) under the Community Air Monitoring Plan and Community Emissions Reduction Program for South Central Fresno which includes the South Tower neighborhood.
Policy LU 6.4: Where applicable, require improvements to properties to be accompanied by streetscape improvements and neighborhood landscape buffering, in accordance with existing streetscape standards per the Department of Public Works. Also see Chapter 4, Circulation.	

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Objective LU 7: Recognize the Unique Strengths and Address The Needs of Tower District's Subdistricts and Corridors.	
Policy LU 7.1: Reinforce Fulton Street, Olive Avenue, and Van Ness Avenue as major corridors with commercial destinations that serve Tower District's Central Area and adjacent neighborhoods.	
Policy LU 7.2: Encourage land use intensification that takes advantage of Tower District's unique position within Central Fresno and convenient transit connections to Downtown along Fulton Street and Van Ness Avenue.	
Parks and Open Spaces	
Objective POS 1: Increase and Enhance Public Open Space Areas and Amenities in the Tower District.	
Policy POS 1.1: Provide parks in accordance with the Parks Master Plan.	Pursue opportunities for new parks and public spaces in the Tower District according to the policies and the standards adopted in the Parks Master Plan. Give priority to improvements in park-deficient areas, consistent with the Measure P implementation process.
Policy POS 1.2: New park acquisition.	Strategically pursue land for the acquisition and establishment of new parks in alignment with the Parks Master Plan. Two new parks have been developed or are near completion: Broadway Parque and Trolley Park. These projects will be valuable additions for Tower District residents. Future opportunities that should be explored include: • A public plaza in the central core near the Tower Theatre. • Mini parks and community gardens on vacant land, City-owned land, and unneeded portions of school properties. Explore opportunities in Van Ness Village, adjacent to the Fire Station at Clinton and Arthur and at the corner of Clinton and Palm, at the northeast corner of the Hamilton School site. • Privately-owned public spaces created as part of new development on large sites, which might be required of larger development projects like Blackstone Avenue corridor.
Policy POS 1.3: Work in partnership with public agencies and the community to enhance existing parks, and other types of open space, for greater recreational value.	• Ted C. Wills. Advocate for a park master planning process and redesign that could make better use of the space and provide more amenities. Reuse of the parking lot and the school campus should be considered. • Roeding Park. Roeding Park lies directly west of the Tower District and has been identified in the Measure P implementation process as a top priority for park improvements. Advocate for a park master planning process and redesign that could make this park a more valuable asset for the City as a whole.
Policy POS 1.4: Measure P funding.	Leverage Measure P funding for acquisition and development of new parks and improvements to existing parks. Measure P generates sales tax revenue to fund improvements and maintenance of existing public parks, build and maintain new parks and trails, and support local arts and cultural amenities.
Policy POS 1.5: Pursue joint-use partnerships with schools and basin sites in the Tower District.	The City has a joint-use partnership for community use of athletic fields and aquatic facilities at Fresno High School, which should be expanded to include other sites in the District, thereby helping to implement the "closing the gaps" strategy defined in the Fresno Parks Master Plan. New joint-use partnerships should be designed to improve the capability of utilizing the District's open space for passive and active recreational and leisure opportunities by adding landscaping, lighting, picnic facilities, and other appropriate amenities, and by extending hours of use. Consider parking needs of the community when entering into joint-use agreements. Joint-use agreements should not diminish the need to create new parks in the Tower District.
Policy POS 1.6: Clean up Dry Creek.	Develop and implement a clean-up action program for Dry Creek that engages neighboring residents and businesses.

TABLE 1: DRAFT TOWER DISTRICT SPECIFIC PLAN UPDATE - OBJECTIVES AND POLICIES

Policy POS 1.7: Greenway and parks along Dry Creek.	Initiate a dialogue between the City of Fresno, the Fresno Irrigation District, and residents to reach agreements around opportunities for access and visibility along Dry Creek. Study the feasibility of increasing public access to Dry Creek. Seek to acquire vacant or key parcels along Dry Creek to act as greenway nodes, enhancing the corridor and providing more access. Include further planting of trees and vegetation along the Dry Creek Canal in addition to trash cans, pet pick up stations, and public benches to ensure ADA compliance is met.
Policy POS 1.8: Transportation impact mitigation and funding.	Work with Caltrans, UP, and BNSF to ensure that rights-of-way adjacent to major transportation facilities are landscaped to help protect the neighborhood from visual, air quality, and noise impacts from freeways and rail corridor. Seek Federal and State funding to provide transportation mitigation and environmental enhancement along major transportation facilities (i.e., Highway 180, High Speed Rail).
Objective POS 2: Improve Access to parks for Tower District Residents	
Policy POS 2.1: Remove barriers to access parks.	Ensure that parks in the Tower District are designed and managed in a way that maintains access and a sense of welcome from the street. Specifically, minimize the use of fences and gates along the street edges of parks, and address safety by improving lighting and visual sight lines.
Policy POS 2.2: Pedestrian and bike overcrossings.	Advocate for high-quality pedestrian and bike access to Roeding Park at Olive Avenue rail corridor at the District's western edge.
Objective POS 3: Recognize that Streets Serve as Public Open Space and provide for Their Improvement in Tower District.	
Policy POS 3.1: Sidewalks as public space.	Plant trees and make other streetscape improvements to enhance pedestrian environments, particularly along the Tower District's commercial corridors. See also Circulation policies. Refer to the City's Urban Forestry Management Plan for a list of approved street trees.
Objective POS 4: Align Public Facilities and Services with Community Needs to Support Quality of Life in the Tower District	
Policy POS 4.1: Tower Public Library.	Work with Fresno County to bring a library back to the Tower District, by relocating an existing branch or creating a new branch. Support this effort through actions that may include, but are not limited to, zoning to allow for a library and allowing for the joint use of City-owned facilities. Enhance the quality of Gillis Library Branch, which currently serves the District.
Policy POS 4.2: Public safety patrols.	Recommend maintaining consistent police presence through a combination of Patrol Officers, Bicycle Patrol Officers, Traffic Officers, and Contract Law Enforcement Services as community based safety options. Explore a stand-alone budget to additionally support entertainment district peak hours and special events. Community based options could include potential partnerships with neighborhood watch and ambassador programs.
Policy POS 4.3: Safe and welcoming public open space.	Design and program parks, plazas, and other public open space to be welcoming to all users. Strategies to employ include: space activation using design features and programmed activities, adequate lighting, uninterrupted lines of sight from streets into the space, absence of subareas that can be readily appropriated for unwanted activities, and on-going high-quality repair and maintenance.
Circulation	
Objective C 1: Improve Tower District Streets to Enhance Access Using All Modes of Transportation and Create a Better Environment	
Policy C 1.1: Improve the multi-modal functions of key corridors.	Using Fresno's Active Transportation Plan as a starting point, evaluate road diet and bicycle facility designs with residents and business owners who live along key corridors to improve safety and reduce collisions while supporting adjacent land uses. The co-created designs should elevate pedestrian safety as the highest priority, while also establishing a unique, visual identity for each corridor. The following corridors should be prioritized for study: • **Olive Avenue, Fulton Street, and Wishon Avenue south of McKinley.** Create a strong pedestrian-oriented environment along these important "main streets." Adjacent to properties zoned Commercial Main Street (CMS), consider relative merits of Class II bike lanes versus Class IV bike lanes, if curb-to-curb widths would allow on-street parking to be retained. If Class II and Class IV bike lanes would result in the loss of on-street parking, consider Class III bike routes to retain on-street parking. • **Clinton Avenue.** Implement traffic calming measures to slow traffic to address safety issues. • **McKinley Avenue.** Implement traffic calming measures and Class IV bike lanes. • **Belmont Avenue.** Consider traffic calming for a safe and comfortable pedestrian environment. See POS 4.2 Public safety.

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Policy C 1.2: Enhance Main Streets.	Enhance streets serving Commercial Main Street (CMS) zoned properties. Along Olive Avenue, establish a traditional commercial "main street" environment that creates a sense of place and prioritizes pedestrian activity. Strengthen Olive Avenue by making the following improvements: • Limit the number of travel lanes to no more than three, with one lane in each direction. While shared center left-turn lanes may be needed, the preferred arrangement of lanes is to have two travel lanes with one lane in each direction and on-street parking lanes to support street-facing retail land use. • Limit travel lane widths to no more than 11 feet, except when implementing Class III bike routes on Commercial Main Street zoned properties, travel lanes should be no more than 12 feet wide to accommodate vehicle maneuvers around bicyclists where no protected bike lane is provided. • Provide bicycle facilities, subject to study as described above.
Policy C 1.3: Encourage active transportation modes by improving bicycle access, safety, and comfort for users of all ages and abilities.	Establish a well-connected bicycle network that provides safe, convenient, and comfortable bike routes through and to the Tower District. Expand and enhance Tower District's Bicycle Network. Establish Primary Bikeways that provide through routes for bicycles and connect to the larger bicycle network. • Design bicycle facility type dependent on primary roadway designations to address roadway design speed, while not oversizing facilities which would diminish the quality of abutting pedestrian routes. • Discourage excessive vehicle speeds and volumes by implementing complete street designs that reduce adjacent vehicle travel lane widths to no more than 11 feet with a 7-foot-wide parking lane. • Widen sidewalks to at least 10 feet with a minimum 6-foot clear walking zone and buffer zone of at least 4 feet, where street trees can be planted between the sidewalk and parking lanes, travel lanes, or bike lanes. • Where observed travel speeds exceed the posted speed limit, apply appropriate traffic calming measures to reduce vehicle speeding and increase safety and access for active modes.
Policy C 1.4: Provide universal accessibility.	Provide access in the Tower District in accordance with the Americans with Disabilities Act and the Public Right-of-Way Accessibility Guidelines (PROWAG). Continue to enforce the California Vehicle Code related to parking with persons with disabilities. Prioritize in areas which are centers of public and community life.
Policy C 1.5: Increase transit frequency.	Work with FAX to evaluate potential increase transit access and frequency enhancements in the Tower District.
Policy C 1.6: Increase late night transportation options.	Work with FAX, other providers, and stakeholders to increase late night transportation options after midnight to serve residents who work late and don't drive a car, and to provide a safe ride home rather than driving while intoxicated. The service should have a user-friendly online interface with real-time location and estimated arrival time information.
Policy C 1.7: Establish mobility hubs.	Work with the community to determine locations for a network of community mobility hubs in the plan area. Potential locations include the core of Tower or Fresno City College. Mobility hubs are places to move from one transportation mode to another, and where the user experience is welcoming.
Policy C 1.8: Improve transit amenities.	Improve transit waiting areas with shade shelters, seating, and real-time arrival information, in accordance with FAX transit amenity requirements.
Policy C 1.9: Coordinate curbside activities.	Conduct a curbside management study of the commercial core and define locations for where commercial loading needs to occur and pickup/drop-off such as for ride-sharing vehicles. Consider time-of-day restrictions to make best use of curbside zones.
Policy C 1.10: Encourage "Green Alleys."	To encourage walking and biking and activate underused alley infrastructure, establish a new green alleys program. Encourage community engagement by creating safe corridors for slower modes of travel that allow residents to interact.

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Objective C 2: Focus Circulation Improvements on Pedestrian Safety	
Policy C 2.1: Add pedestrian safety elements.	Work with Public Works to install street lighting, crosswalk striping and installation of pedestrian safety measures, particularly at frequently used but unmarked pedestrian crossings.
Policy C 2.2: Conduct a Sidewalk Gap Study.	Undertake a detailed sidewalk gap study focused around schools, and seek funding to address gaps. Recommendations should locate and describe needed features, including high-visibility crosswalks at intersections, ADA-accessible curb ramps, pedestrian-scale lighting, street trees, and raised speed tables at crosswalks.
Objective C 3: Enhance Safety on Local Interior Neighborhood Streets	
Policy C 3.1: Calm vehicular traffic	Install traffic calming measures within the residential neighborhoods to improve their safety and enjoyment. Such measures may include, but are not limited to, speed humps, traffic circles, bulb-outs, neck-downs, stop signs, and other effective methods. Methods should be carefully considered for both their potential effectiveness as well as visual aesthetic consistent with the visual character of each neighborhood.
Policy C 3.2: Provide mid-block crossings in critical locations in accordance with requirements established by the Department of Public Works.	Provide safe mid-block pedestrian crossings where pedestrian safety would be significantly improved, such as near schools and in the middle of particularly long blocks in main street areas, if consistent with the City's uncontrolled crosswalk standards. Accompany mid-block crossings with high-visibility crosswalks and Rectangular Rapid Flashing Beacons (RRFBs).
Objective C 4: Initiate Projects that Help Mitigate Adverse Impacts Resulting From Regional Circulation Improvements	
Policy C 4.1: Coordinate with the Department of Public Works to complete the planned vehicular improvements at McKinley and Blackstone Avenues and support the installation of enhanced bicycle and pedestrian facilities.	Evaluate the number and width of vehicle travel lanes to reduce vehicle speeds through areas with significant pedestrian and bicycle traffic. Ensure that planned improvements feature comprehensive pedestrian and bike infrastructure. Implement traffic calming measures in neighborhoods surrounding adjacent development projects.
Policy C 4.2: Initiate pedestrian improvements at the SR 180 Access Ramps.	Implement complete street improvements on Fulton Street, Van Ness Avenue, and Belmont Avenue near the SR 180 access ramps. Sidewalks should be provided on both sides of the street, at least 8 feet with a minimum 6-feet of clear walk area, with broader cross-sections preferred, and including street trees, places to sit, pedestrian-scaled street lighting in keeping with the character of historic streetlamps in the District, and gateway elements. Work with Caltrans to redesign the off-ramps of Fulton Street and Blackstone Avenue, to remove right-turn slip-lanes that allow high-speed vehicular traffic to continue at high speeds onto city streets.
Policy C 4.3: Address change to local traffic from High-Speed Rail improvements and State Route 99 ramp closures.	Evaluate the effects on the local transportation system after infrastructure improvements have been completed. Any future streetscape changes should be planned with the primary intention of preserving neighborhood quality and with an integral role for the neighborhood.
Policy C 4.4: Address motorist needs and potential impacts from vehicles during special events.	Designate detour routes and provide consistent wayfinding signage to help visitors navigate the Tower District during special events. Protect neighborhoods from cut-through traffic.
Policy C 4.5: Enhance and maintain landscape buffering.	Develop landscape improvement programs for streets to beautify Tower District, encourage walking, and address potential adverse impacts on adjacent residential properties and neighborhoods.
Objective C 5: Minimize the Impact of Truck Traffic on the Residential Neighborhoods of the Tower District	
Policy C 5.1: Rerouting of truck traffic.	Evaluate potential impacts from rerouting truck traffic due to HighSpeed Rail and closure of SR99 interchanges, particularly health and equity-related concerns. Study potential effects of truck traffic at the local level and mitigate potential negative impacts, such as to make multimodal street improvements and designate truck routes away from residential neighborhoods. Specifically, study the potential effects of truck use of Weber Avenue following the closure of Golden State Boulevard, particularly its potential effects on residential areas, notably South Tower.

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Objective C 6: Develop and Adopt a Parking and Transportation Demand Management (TDM) Strategy for the Tower District that Supports Commercial Activity and Enhances the Pedestrian-Oriented Character of the District.	
Policy C 6.1: On-street parking	Maximize on-street parking while providing adequate sidewalk widths and continuous street trees. Preserve existing on-street parking wherever possible. Consider ways to increase on-street parking, such as by introducing diagonal parking along streets that do not include bicycle lanes with curb-to-curb dimensions, in excess of what is functionally required.
Policy C 6.2: Evaluate demand and location for bicycle parking.	To build on the multi-modal nature of the Tower District, encourage non-motorized modes of transportation. Require off-street bicycle parking with new development.
Policy C 6.3: Surface parking fronting major streets.	Where applicable, establish development standards that prohibit on-site surface parking where it fronts major streets, as reference in FMC Section 15-2414. In addition, require that at least three-quarters of a parcel's street frontage be lined by building or community open space.
Policy C 6.4: Residential parking permit district.	Explore the creation of Residential Parking Permit Districts to manage spill over parking from commercial and institutional uses.
Policy C 6.5: Shared parking for the Entertainment District.	Consider establishing shared off-street parking to support the commercial core area and reduce demand for on-street parking.
Policy C 6.6: New development.	Require that new development incorporate TDM measures to reduce parking demand and allow parking configurations that reduce site area dedicated to parking, such as tandem parking and use of mechanical lifts. All new development will also be required to comply with the Fresno Municipal Code parking standards.
Objective C 7: Enhance the Unique Identity of the Tower District with Placemaking	
Policy C 7.1: Create unique gateways to signal entry into the Tower District	The Tower District has many distinct entryways. Enhancing the sense of place at gateways can create pride among residents and highlight the district as a cultural hub of Fresno. Gateway locations may include: • Van Ness, Wishon/Maroa, and Palm Avenues on the north • Van Ness, Fulton, and Broadway on the south • McKinley, Olive, Belmont (at San Pablo), and Maroa on the east • McKinley, Olive, Belmont (at HSR crossing), and Shields on the west
Policy C 7.2: Wayfinding and signage.	Develop wayfinding and signage branding for the Tower District to allow residents and visitors to explore the neighborhood. Help people navigate the district with its historic and cultural sites, public parking, retail areas and Fresno City College. Develop street signs in line with historic Tower elements in coordination with Public Works.
Policy C 7.3: Support public art in the Tower District.	Include public art in the Tower District along sidewalks and in plazas and parks to tell the story of the neighborhood and reflect its culture. Public art should include installations and integrated elements like paving, lighting, and seating. Require that new development along key corridors integrate public art elements or contribute to a public art fund. Public art will be administered through the Parks, Recreation and Arts Commission.
Policy C 7.4: Consider a demonstration program from alley enhancements.	Consider a demonstration program for alley enhancements to support alley paving and enhancement for walking, biking, and access for garages and to potential accessory dwelling units (ADUs). Enhance the spaces with landscaping and public art where possible.
Policy C 7.5: Enable temporary street traffic closures and slow streets.	Continue temporary street traffic closures on Olive Avenue to enable the Pride and Mardi Gras festivals that bring life to the community. Consider additional temporary traffic closures (i.e. Sunday Streets) and/or traffic slowing programs (i.e. Slow Streets) that can support neighborhood walking, biking, and quality of life. Note that such closures are subject to the City's special events approval process.
Policy C 7.6: Public events.	Develop a program of public events to take place in Tower District neighborhood shopping areas.

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Objective C 8: Create Public Realm Improvements in the Tower District.	
Policy C 8.1: Provide streetscape elements, public plazas, and open space to engender public activities and functions.	Design and program streetscape elements, plazas, and other public open space to be welcoming to all users. Strategies to employ include: space activation using design features and programmed activities, adequate lighting, uninterrupted lines of sight from streets into the space, absence of subareas that can be readily appropriated for unwanted activities, and on-going high-quality repair and maintenance.
Policy C 8.2: Add features that bring comfort, safety and attractiveness to the public realm.	Develop a palette of high-quality public space furniture like trash cans, benches, bicycle stands, light fixtures, tree grates, planters, etc. to develop a cohesive public realm for the Tower District, as might be implemented by a Business Improvement District (BID) or other similar mechanism. Borrow from historic elements where possible to maintain the character of the neighborhood.
Policy C 8.3: Adequate Seating.	Through a Business Improvement District (BID) or other similar mechanism, provide adequate public seating along major corridors. Specifically, add seating in the core commercial area of the Tower District along Olive Avenue.
Policy C 8.4: Trash Cans.	Through a Business Improvement District (BID) or other similar mechanism, add adequate trash cans along commercial streets including Olive, Van Ness, Belmont and Blackstone Avenues. Extend the addition of trash cans to one block into the neighborhood around the core of the entertainment area.
Policy C 8.5: Plant street trees to enhance tree canopy and maintain uniformity within the Plan Area.	Require all new and replaced trees to conform with standards established in the Urban Forest Management Plan and Section 13-306 of the Fresno Municipal Code. Trees are essential in providing respite from urban heat, and infusing nature into the urban environment. Specific actions include: • Examine the tree trimming policies and tree replacement policies to maintain tree health and shade in the Tower District. Add the tree data to the public data portal to allow residents to help report on tree health or surrounding issues. • Explore a public training program on tree preservation, proper removal, and pruning of trees in accordance with standards established by the Department of Public Works. • Plant street trees along sidewalks where missing, especially along Olive and Belmont Avenues and in the South Tower neighborhood, to mitigate the urban heat island effect in these areas. • Through property owner support, a Business Improvement District (BID) or other similar mechanism, require the planting of trees in plazas and parking lots. • Choose street trees with large canopies to provide adequate shade where planted. Use drought-tolerant, native species as much as possible to reduce maintenance needs.
Utilities	
Objective UT 1: Provide for the Orderly Provision of Utility Services in the Tower District.	
Policy UT 1.1: Support regulations that require developers to make fair-share contributions toward infrastructure, through developer fees and in-kind improvements.	
Policy UT 1.2: Consider reducing developer fees when they could make development infeasible, if the proposed development advances Tower District goals and is consistent with its policies, standards, and guidelines.	
Policy UT 1.3: Encourage coordination among stakeholders interested in utility systems and programs.	Exchange information regarding infrastructure plans that could affect the Tower District, by engaging government agencies responsible for utilities, the Tower District Implementation Committee, businesses, and developers with specific utility-related needs.
Objective UT 2: Address Utility Infrastructure Needs in Ways that are Compatible with the Tower District.	
Policy UT 2.1: Design utilities to be aesthetically pleasing and compatible with adjacent uses.	New development should generally locate new utility lines underground. Work with utility providers to underground existing above-grade utilities as opportunities arise. Encourage the placement of utilities in locations that do not interfere with street trees, such as in alleys or midblock easements.

TABLE 1: DRAFT TOWER DISTRICT SPECIFIC PLAN UPDATE - OBJECTIVES AND POLICIES

Objective UT 3: Encourage Resiliency and Sustainable Forms of Development.	
Policy UT 3.1: Encourage reduction in the use of potable water.	Promote water-conserving appliances, water reuse as part of industrial activities, and drought-tolerant planting, and other ways to use less potable water.
Policy UT 3.2: Encourage retention of stormwater.	Minimize impervious surfaces. Encourage green infrastructure, such as rain gardens and bio-retention swales, as part of streets, parks, parking lots, and other improvements.
Policy UT 3.3: Reduce risk to property from flooding.	Share information regarding flood risks in the planning area. Consider raising the ground floor of new buildings in locations of significant flood risk, while meeting building accessibility standards.
Policy UT 3.4: Encourage energy conservation and generation.	Encourage development to go beyond established energy code requirements, such as by incorporating passive solar architecture and installing photovoltaic panels.

TABLE 2: GENERAL PLAN CONSISTENCY ANALYSIS

General Plan Element	General Plan Objective	Consistency Summary
Urban Form, Land Use, and Design	**D-1.** Provide and maintain an urban image that creates a "sense of place" throughout Fresno.	**Consistent.** The Specific Plan Update contains policies that support maintaining the uniqueness and identity of the District. Supporting Policies: CHP 1.1, CHP 1.2, CHP 1.3, CHP 1.4, CHP 1.5, CHP 1.6, CHP 1.8, LU 1.1, C7.1, C7.3. C 7.6
	D-3. Create unified plans for Green Streets, using distinctive features reflecting Fresno's landscape heritage.	**Consistent.** The Specific Plan Update includes development and design standards, including those for the creation of green streets. Supporting Policies: CHP 1.5, CHP 2.2
	D-4. Preserve and strengthen Fresno's overall image through design review and create a safe, walkable and attractive urban environment for the current and future generations of residents.	**Consistent.** The Specific Plan Update sets clear development standards and guidelines, including height limits, in order to support conservation and historic preservation of Fresno's overall image and the character of the District's neighborhoods. The Plan includes policies to encourage the development of complete neighborhoods that are safe and healthy. walkable, and interconnected, and all future development under the proposed project would be required to comply with these development standards. Supporting Policies: LU 1.1, LU 4.2, POS 3.1, C 1.1. C 1.2, C 1.3. C 2.1, C2.2, C 3.2, C 4.1, C 4.2, C 8.2.
	D-5. Maintain and improve community appearance through programs that prevent and abate blighting influences.	**Consistent.** The Specific Plan Update contains policies to protect the aesthetic of the District. Supporting Policies: POS1.6, Pos 1.7, C 8.2, C 8.4, LU 1.2
	D-6. Encourage design that celebrates and supports the cultural and ethnic diversity of Fresno.	**Consistent.** The Specific Plan Update contains policies to support and encourage design that celebrates the uniqueness of the District. Supporting Policies: CHP 1.1, CHP 1.2, C 7.1, 7.2, C 7.3
	D-7. Continue applying local urban form, land use, and design policies to specific neighborhoods and locations.	**Consistent.** The Specific Plan Update contains policies which support enhancing and maintaining the unique design of the District and its diverse neighborhoods. Supporting Policies: CHP 2.1, CHP 2.2, CHP 3.1, CHP 3.4, LU 1.2, LU 2.1, LU 2.2, LU 3.2, LU 3.3, LU 3.6.
	LU 2. Plan for infill development that includes a range of housing types, building forms, and land uses to meet the needs of both current and future residents.	**Consistent.** The Specific Plan Update encourages a range of infill development to better meet the needs of current and future District residents. Supporting Policies: LU 2.1, LU 2.2, LU 3.2, LU 3.3, LU 3.6.
	LU-4. Enhance existing residential neighborhoods through regulations, code enforcement, and compatible infill development.	**Consistent.** The Specific Plan Update encourages the preservation and enhancement of existing neighborhoods by encouraging code enforcement and compatible infill development. Supporting Policies: CHP 2.1, CHP 3.4, LU 1.2, LU 2.1, LU 2.2, LU 3.2, LU 3.3, LU 3.6.
	LU-5. Plan for a diverse housing stock that will support balanced urban growth, and make efficient use of resources and public facilities.	**Consistent.** The Specific Plan Update encourages the development of a mix of new residential units as well as the preservation of existing diverse residential uses within the District's built out neighborhoods. Supporting Policies: CHP 2.4, CHP 3.3, LU 2.1, LU 2.2, LU 3.1, LU 3.3, LU 3.5, LU 3.6
	LU-6. Retain and enhance existing commercial areas to strengthen Fresno's economic base and site new office, retail, and lodging use districts to serve neighborhoods and regional visitors.	**Consistent.** The Specific Plan Update by encouraging ground-floor retail with residential or office uses above supports the strengthening of existing commercial corridors within the District. It supports economic-revitalization of existing commercial areas by increasing foot traffic, supporting local businesses, and creating diverse housing options. Supporting Policies: LU 2.1, LU 3.2, LU 3.3, LU 3.6.
	LU-7. Plan and support industrial development to promote job growth.	**Consistent.** The Specific Plan Update encourages the continued use of light industrial uses in the existing industrial corridors. Supporting Policies: LU 6.1, LU 6.2
	LU-9. Plan land uses, design, and development intensities to supplement and support, and not compete with, the Downtown.	**Consistent.** The Specific Plan Update encourages reinforcing the historic relationship between the District and Downtown Fresno. Supporting Policies: CHP 4.1, LU 7.2.
	UF-1. Emphasize the opportunity for a diversity of districts, neighborhoods, and housing types.	**Consistent.** The Specific Plan Update encourages the buildout of complete neighborhoods with streets encouraging multi-modal transportation and a diversity of housing types. Supporting Policies: C 1.3, C 4.2, LU 2.1, LU 2.2, LU 3.2, LU 3.6.

TABLE 2: GENERAL PLAN CONSISTENCY ANALYSIS

General Plan Element	General Plan Objective	Consistency Summary
	UF-14. Create an urban form that facilitates multi-modal connectivity.	**Consistent.** The Specific Plan Update encourages multi-modal transportation and connectivity between the District and the rest of the city; including by utilizing adjacent transportation hubs. Supporting Policies: C 1.1, C 1.3, C 1.4, C 1.5, C 1.6, C 1.7. C 1.8, C 1.9, C 1.10, C 2.1, C 2.2, C 3.1, C 3.2, C 4.1, C 4.2, C 4.3, C 5.1, C 6.1, C 6.2.
Economic Development & Fiscal Sustainability Element	**ED-1.** Support economic development by maintaining a strong working relationship with the business community and improving the business climate for current and future businesses.	**Consistent.** The Specific Plan Update includes a guiding principle that supports economic development and improves the business climate in the District by supporting adaptive re-use and expansion, particularly on underutilized sites. The Plan supports the continued operation of major commercial corridors which provide opportunities for small businesses to thrive. Supporting Policies LU 4.1, LU4.6, LU 5.4, LU 5.5, LU 6.1, LU 6.2, LU 7.1.
	ED-2. Support local business start-ups and encourage innovation by improving access to resources and capital and help overcome obstacles hampering economic development.	**Consistent.** The Specific Plan Update includes a guiding principle that supports economic development and improves the business climate in the District by supporting the viability of small businesses, particularly within the existing commercial corridors. Supporting Policies: LU 4.2, LU 5.4, LU 2.2, LU 7.1.
	ED-3. Attract and recruit businesses and offer incentives for economic development.	**Consistent.** The Specific Plan Update encourages the expansion of business within the existing commercial corridors and encourages additional business development that meets the District's needs. Supporting Policies: LU 2.1, LU 3.2, LU 3.6, LU 4.1, LU 4.5, LU 4.6, LU 5.2, LU 5.4, LU 5.5, LU 6.2.
Healthy Communities	**HC-2.** Create complete, well-structured, and healthy neighborhoods and transportation systems.	**Consistent.** The Specific Plan Update includes policies to encourage the development of complete neighborhoods that are safe and healthy. walkable, and interconnected, and all future development under the proposed project would be required to comply with these development standards. Supporting Policies: LU 1.1, LU 4.2, POS3.1, C 1.1. C 1.2, C 1.3. C 2.1, C2.2, C 3.2, C 4.1, C 4.2.
	HC-3. Create healthy, safe, and affordable housing.	**Consistent.** The Specific Plan Update encourages a range of housing and infill development to better meet the needs of current and future District residents. Supporting Policies: CHP 2.4, LU 2.1, LU 2.2, LU 3.2, LU 3.3, LU 3.5 LU 3.6.
	HC-5. Promote access to healthy and affordable food.	**Consistent.** The Specific Plan Update calls for the consideration of streamlining permitting for healthy food options within the District. LU 4.6.
	HC-6. Improve access to schools and their facilities for the community.	**Consistent.** The Specific Plan supports collaboration with public agencies to provide campus access for use as open space by District residents. Supporting Policies: POS 1.2, POS 1.3.
	HC-7. Establish priorities and mechanisms for park facilities improvements linked to effectiveness and improving health.	**Consistent.** The Specific Plan recognizes that parks and public facilities support community life and contribute to the physical and psychological well-being of residents, workers, and visitors. The Specific Plan Update seeks to increase the availability of parks within the District and establish potential funding sources for future park construction. The Plan also encourages the use of joint-agreements with jurisdictions managing existing open space within the District to provide additional access for residents. POS 1.1, POS 1.2, POS 1.3, POS 1.4, POS 1.5, POS 1.6, POS 1.7, POS 2.1, POS 4.3.
Historic & Cultural Resources Element	**HCR-2**. Identify and preserve Fresno's historic and cultural resources that reflect important cultural, social, economic, and architectural features so that residents will have a foundation upon which to measure and direct physical change.	**Consistent.** The Specific Plan Update established a guide for future development within the Specific Plan Update Area while balancing the needs of preservation efforts to maintain the historic and cultural identity of the District. By documenting historic themes, property types, and periods of significance, it ensures that rehabilitation, adaptive reuse, and infill projects are undertaken with the necessary preservation efforts included. The Specific Plan Update codifies protection measures—such as design review thresholds and demolition controls—to prevent loss of significant buildings and streetscapes. Supporting Policies: CHP 1.1, CHP 1.2, CHP 1.3, CHP 1.4, CHP 1.5, CHP 1.6, CHP 1.7, CHP 1.8, CHP 1.9, CHP 1., CHP 1.11, CHP 2.1, CHP 3.3, CHP 3.4.

TABLE 2: GENERAL PLAN CONSISTENCY ANALYSIS

General Plan Element	General Plan Objective	Consistency Summary
Mobility and Transportation Element	**MT-1.** Create and maintain a transportation system that is safe, efficient, provides access in an equitable manner, and optimizes travel by all modes.	**Consistent.** The Specific Plan Update seeks to improve pedestrian and bicycle safety while balancing the use of automobiles throughout the district by recognizing the need for complete streets throughout the District. The Plan includes goals to increase the connectivity of alternative modes of transportation within the District and to increase and maintain connections to nearby transportation hubs which provide connections to other areas of the city. Supporting Policies C 1.1, C 1.3, C 1.4, C 1.5, C 1.6, C 1.7. C 1.8, C 1.9, C 1.10, C 2.1, C 2.2, C 3.1, C 3.2, C 4.1, C 4.2, C 4.3, C 5.1, C 6.1, C 6.2.
	MT-2. Make efficient use of the City's existing and proposed transportation system and strive to ensure the planning and provision of adequate resources to operate and maintain it.	**Consistent.** The Specific Plan Update contains numerous policies which support efficient use of the City's existing multi-modal transportation infrastructure and incorporates policies to protect and enhance these systems alongside future development within the District. Supporting Policies: C 1.1, C 1.2, C 1.3, C 1.4 C 1.5, C 1.6, C 1.7, C 1.8, C 1.10, C 2.1, C 2.2, C 3.1, C 3.2, C 4.1, C 4.2, C 4.3, C 4.4, C 6.1, C 6.2, C 6.3, C 6.5.
	MT-4. Establish and maintain a continuous, safe, and easily accessible bikeways system throughout the metropolitan area to reduce vehicle use, improve air quality and the quality of life, and provide public health benefits	**Consistent.** The Specific Plan Update seeks to utilize the City's Active Transportation Plan to reclaim excess pavement for protected bicycle lanes and widened sidewalks. The Plan seeks to improve safety along key corridors and reduce collisions while supporting adjacent land uses. Supporting Policies: C1.1, C 1.3, C 1.10, C 4.1, C 6.2.
	MT-5. Establish a well-integrated network of pedestrian facilities to accommodate safe, convenient, practical, and inviting travel by walking, including for those with physical mobility and vision impairments.	**Consistent.** The Specific Plan Update supports the preservation and improvement of pedestrian facilities within the District, including for those with mobility and vision impairments. Supporting Policies. CHP 3.2, LU 3.4, LU 4.2, POS 2.2, POS 3.1, C 1.1, C 1.2, C 1.3, C 2.1, C 2.2, C 3.1, C 3.2, C 4.1, C 4.2, POS 1.7
	MT-6. Establish a network of multi-purpose pedestrian and bicycle paths, as well as limited access trails, to link residential areas to local and regional open spaces and recreation areas and urban Activity Centers in order to enhance Fresno's recreational amenities and alternative transportation options.	**Consistent.** The Specific Plan Update contains policies that support maintaining and enhancing the pedestrian and bicycle network within the District and supports enhancing multi-modal transportation. Supporting Policies: CHP 3.2, LU 3.4, LU 4.2, POS 2.2, POS 3.1, C 1.1, C 1.2, C 1.3, C 2.1, C 2.2, C 3.1, C 3.2, C 4.1, C 4.2, C 6.2, C 8.2, POS 1.7
	MT-10. Establish parking standards that are strategically tuned to support neighborhoods, shopping districts and employment centers that have a complete range of transportation choices.	**Consistent.** The Specific Plan Update established standards for maintaining and enhancing compatible parking that fits the needs of the District's residents and visitors. Supporting Policies C 1.1, C 1.2, C 6.1, C 6.4, C 6.5, C 7.2, C 8.5
Noise and Safety	**NS-1.** Protect the citizens of the City from the harmful and annoying effects of exposure to excessive noise.	**Consistent.** The Specific Plan Update supports the utilization of zoning standards to reduce the potential impacts of noise on District residents and supports collaboration with the appropriate agencies to reduce the effects of noise from major transportation facilities. Supporting Policies: LU 5.2, POS 1.8.
	NS-3. Minimize the risks to property, life, and the environment due to flooding and stormwater runoff hazards.	**Consistent.** The Specific Plan Update contains policies to reduce the risks of flooding within the district including reducing impervious surfaces and raising the ground floor of new building where appropriate. Supporting Policies: UT 3.2, UT 3.3.
Parks, Open Space, and Schools	**POSS-1.** Provide an expanded, high quality and diversified park system, allowing for varied recreational opportunities for the entire Fresno community.	**Consistent.** The Specific Plan Update recognizes that parks and public facilities support community life and contribute to the physical and psychological well-being of residents, workers, and visitors. The Specific Plan Update seeks to increase the availability of parks within the District and establishes potential funding sources for future park construction. The Plan also encourages the use of joint-agreements with jurisdictions managing existing open space within the District to provide additional access for residents. Supporting Policies: POS 1.1, POS 1.2, POS 1.3, POS 1.4, POS 1.5, POS 1.6, POS 1.7, POS 2.1, POS 4.3.

TABLE 2: GENERAL PLAN CONSISTENCY ANALYSIS

General Plan Element	General Plan Objective	Consistency Summary
	POSS-2. Ensure that adequate land, in appropriate locations, is designated and acquired for park and recreation uses in infill and growth areas.	**Consistent.** The Specific Plan Update seeks to increase the availability of parks within the District and establishes potential funding sources for future park construction. The Specific Plan Update includes objectives and policies to pursue opportunities for new parks and public spaces in the Tower District according to the policies and the standards adopted in the Parks Master Plan, and give priority to improvements in park-deficient areas. The Plan also encourages the use of joint-agreements with jurisdictions managing existing open space within the District to provide additional access for residents. Supporting Policies: POS 1.1, POS 1.2, POS 1.3, POS 1.4, POS 1.5, POS 1.6, POS 1.7, POS 2.1, POS 4.3.
Public Utilities and Services	**PU-1**. Provide the level of law enforcement and crime prevention services necessary to maintain a safe, secure, and stable urban living environment through a Police Department that is dedicated to providing professional, ethical, efficient and innovative service with integrity, consistency and pride.	**Consistent.** The Specific Plan Update encourages maintaining a police presence through a combination of Patrol and Bicycle Officers, Traffic Officers, and Contracted Law Enforcement and encourages the exploration of additional budgets to support areas with increased demand and during major events. Supporting Policies: POS 4.2.
	PU-2. Ensure that the Fire Department's staffing and equipment resources are sufficient to meet all fire and emergency service level objectives and are provided in an efficient and cost effective manner.	**Consistent.** While the District is a largely built out environment with existing Fire Protection Services, the Specific Plan Update supports requiring future development to make fair-share contributions when applicable. Supporting Policies: UT 1.1.
	PU-4. Ensure provision of adequate trunk sewer and collector main capacities to serve existing and planned urban development, consistent with the Wastewater Master Plan.	**Consistent.** While the District is a largely built out environment with existing utility infrastructure, the Specific Plan Update supports requiring future development to make fair-share contributions towards public utilities when applicable. Supporting Policies: UT 1.1, UT 1.3.
	PU-6. Ensure the provision of adequate sewage treatment and disposal by utilizing the Fresno-Clovis Regional Wastewater Reclamation Facility as the primary facility, when economically feasible, for all existing and new development within the Metropolitan Area.	**Consistent.** While the District is a largely built out environment with existing utility infrastructure, the Specific Plan Update supports requiring future development to make fair-share contributions towards public utilities when applicable. Supporting Policies: UT 1.1, UT 1.3.
	PU-8. Manage and develop the City's water facilities on a strategic timeline basis that recognizes the long life cycle of the assets and the duration of the resources, to ensure a safe, economical, and reliable water supply for existing customers and planned urban development and economic diversification.	**Consistent.** The Specific Plan Update encourages reduction in the use of potable water by promoting water-conserving and reuse activities, stormwater retention, and encouraging energy conservation. Supporting policies: UT 3.1, UT 3.3.
Resource Conservation and Resilience	**RC-1.** Make efficient use of existing and future public infrastructure.	**Consistent.** Supporting Policies: UT 1.1, UT 1.3, UT 2.1, UT 3.1, UT 3.2, UT 3.4.

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APPENDIX E

AIR QUALITY/GREENHOUSE GAS EMISSIONS/ ENERGY IMPACT ANALYSIS

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AIR QUALITY, ENERGY, AND GREENHOUSE GAS IMPACT ANALYSIS

TOWER DISTRICT SPECIFIC PLAN UPDATE

FRESNO, CALIFORNIA

LSA

July 2025

AIR QUALITY, ENERGY, AND GREENHOUSE GAS IMPACT ANALYSIS

TOWER DISTRICT SPECIFIC PLAN UPDATE

FRESNO, CALIFORNIA

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LIST OF ABBREVIATIONS AND ACRONYMS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m3	micrograms per cubic meter
AAQS	ambient air quality standards
AB	Assembly Bill
ADT	average daily traffic
APN	Assessor's Parcel Number
APS	Alternative Planning Strategy
AQMP	Air Quality Management Plan
Bay Area Air District	Bay Area Air Quality Management District
BTU	British thermal units
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CALGreen Code	California Green Building Standards Code
CalMAX	California Materials Exchange
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CARB Handbook	California Air Resources Board's Air Quality and Land Use Handbook
CBC	California Building Code

CCAA	California Clean Air Act
CCAP	Climate Change Action Plan
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Fresno
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalents
CPUC	California Public Utilities Commission
District	Tower District
DOE	United States Department of Energy
DPM	diesel particulate matter
EIA	United States Energy Information Administration
EO	Executive Order
EV	electric vehicle
FCOG	Fresno Council of Governments
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
GWh	gigawatt-hours
GWP	Global Warming Potential
HFC	hydrofluorocarbon
HI	Hazard Index
HRA	Health Risk Assessment

ICLEI	International Council for Local Environmental Initiatives
Justification Report	*Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*
MEI	maximally exposed individual
MICR	maximum individual cancer risk
MMT	million metric tons
mpg	miles per gallon
MT	metric tons
MW	megawatts
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone
OEHHA	California Office of Environmental Health Hazard Assessment
Pb	lead
PFC	perfluorocarbon
PM	particulate matter
PM_{10}	particulate matter that is 10 microns or less in diameter
$PM_{2.5}$	particulate matter that is 2.5 microns or less in diameter
ppb	parts per billion
ppm	parts per million
project	Tower District Specific Plan Update Project

ROG	reactive organic gas
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SAFE	Safer Affordable Fuel Efficient
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	sulfur dioxide
Specific Plan Area	Tower District Specific Plan Area
SR-	State Route
T-BACTs	Best Available Control Technologies for Toxics
TAC	toxic air contaminant
UNFCCC	United Nations Framework Convention on Climate Change
UPRR	Union Pacific Railroad
URF	diesel exhaust unit risk factor
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
VMT	vehicle miles traveled
VOC	volatile organic compound
ZEVs	zero emission vehicles

INTRODUCTION

This Air Quality, Energy, and Greenhouse Gas (GHG) Impact Analysis has been prepared to evaluate the potential air quality and GHG emissions impacts associated with the Tower District Specific Plan Update (proposed project) in Fresno, California. This analysis was prepared for the City of Fresno (City) 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] In keeping with these guidelines, this analysis describes existing air quality, including air quality and GHG emissions generated from project-related sources, regional air pollution, and global climate change. In addition, this analysis discusses energy use resulting from implementation of the proposed project and evaluates whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency.

PROJECT LOCATION AND DESCRIPTION

The Tower District (District) is located in Fresno, California, which is in the central San Joaquin Valley of Fresno County, approximately 200 miles north of Los Angeles and 170 miles south of Sacramento. The District is approximately 1,869-acre area located immediately north of Downtown Fresno and State Route (SR) 180 and 1 mile east of the SR-99 corridor. The District is generally bound by Shields Avenue to the north, Blackstone Avenue to the east, SR-180 to the south, and Fruit Avenue and the Union Pacific Railroad (UPRR) tracks to the west. To the north of Fresno is Madera County, to the northeast and adjacent to Fresno is Clovis, and unincorporated land is located to the east, south, and west of Fresno. Figure 1 shows the regional location and local vicinity map. Figure 2 shows the project location.

The proposed project would update the existing Specific Plan, adopted in 1991, to respond to issues in the District that have remained, changed, and emerged, as well as to provide strategic and comprehensive guidance for making decisions regarding the District's built environment and landscape character, land use and activities, public open space, community facilities, transportation, and other forms of infrastructure within the Tower District Specific Plan Area (Specific Plan Area). The Specific Plan establishes a shared set of goals, objectives, policies, and implementing actions for the future growth and change of the Specific Plan Area. The Specific Plan also aids in implementing the broader goals and policies for the City, as outlined in the General Plan, in a manner that can better meet the needs of the District. This update is intended to streamline development within the Specific Plan Area by updating the Specific Plan's environmental analysis pursuant to CEQA requirements, and by providing a current regulatory framework and applicable mitigation measures.

In addition, the proposed project would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on Blackstone Avenue and Shields Avenue. This would allow for ground level commercial uses fronting public streets and sidewalks, while residential uses would be located above or behind. This would

[1] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015a. *Guidance for Assessing and Mitigating Air Quality Impacts*. March 19. Website: www.valleyair.org/transportation/ceqa_idx.htm (accessed June 2025).

continue to promote the walkability of the District while allowing for greater residential development. Additionally, medium low density residential uses would be allowed at Terrace Gardens, Porter Tract, and Wilson Island to allow for the development of slightly denser housing where building mass can transition in scale to the adjacent single-family homes.

Based on the trip generation and vehicle miles traveled (VMT) analysis prepared for the proposed project[2], the proposed project would increase daily trips by 3,001 compared to the Approved Specific Plan. As such, the proposed project is estimated to generate approximately 39,055 daily trips, and the Approved Specific Plan would generate approximately 36,054 daily trips.

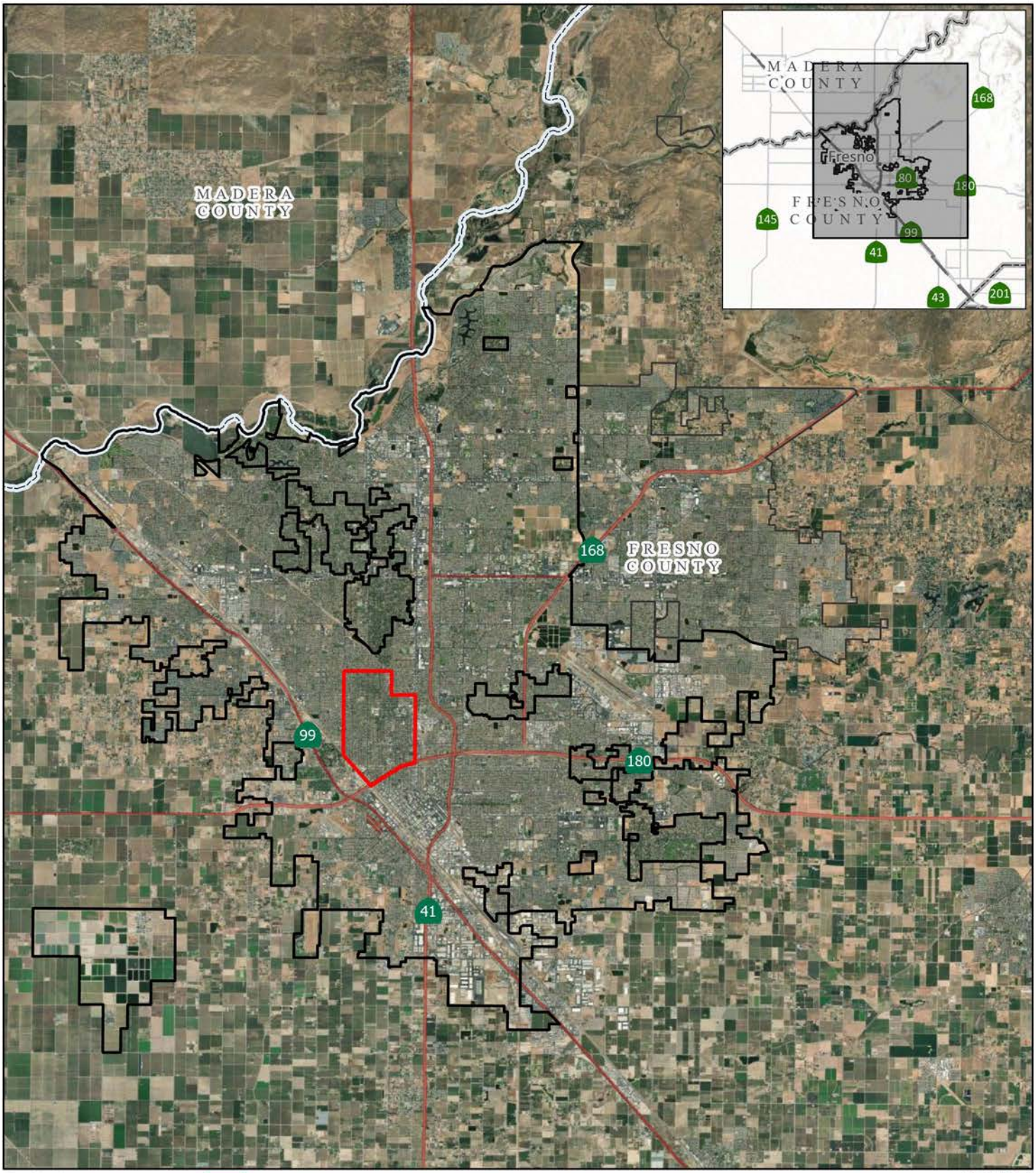
Construction activities for the project would include site preparation, grading, building construction, paving, and architectural coating. The detailed project schedule is not yet known. Therefore, this analysis assumes that construction of the proposed project would begin in early 2026 and that the proposed project would be operational in 2046. This analysis also assumes that grading associated with the proposed project would be balanced on site, and no import or export of soil would be required. Grading, site preparation, and building activities would involve the use of standard earthmoving equipment such as large excavators, cranes, and other related equipment.

EXISTING LAND USES IN THE PROJECT AREA

For the purposes of this analysis, sensitive receptors are areas of the population that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include residences, schools, daycare centers, hospitals, parks, and similar uses that are sensitive to air quality. Impacts on sensitive receptors are of particular concern because those receptors are the population most vulnerable to the effects of air pollution.

Land uses within the District include single-family residential uses, which comprise over half of the District's land area, medium-density residential uses, high-density residential uses, public uses (e.g., schools, parks, and recreation sites), and light industrial uses, which are generally confined to the southwest edge of the District. Also, the District is generally surrounded by urban, built-up areas consisting of similar land uses to those found within the District, including a mix of residential, commercial, public institutions, and pockets of industrial uses. Additionally, Roeding Regional Park is located west of the District, immediately adjacent to the UPRR line and Golden State Boulevard.

[2] LSA Associates, Inc (LSA). 2025. *Tower District Specific Plan Update Trip Generation and Vehicle Miles Traveled Analysis Memorandum*. July



LSA

Tower District Boundary
County Boundary
City of Fresno
City of Clovis

0 7500 15000
FEET

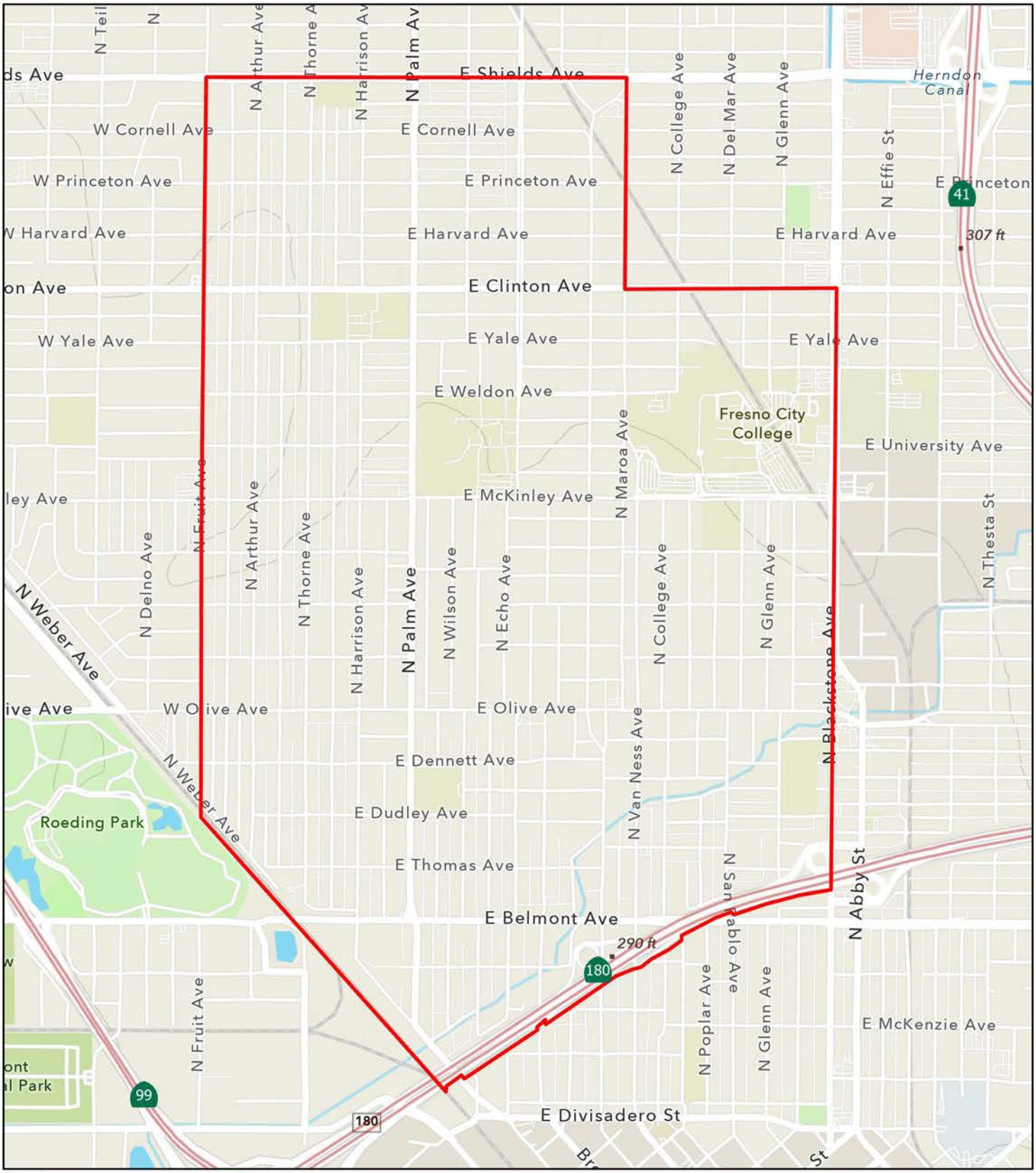
SOURCE: Esri World Imagery (2025)

I:\2024\20241643\GIS\Pro\Tower District Specific Plan Update\Tower District Specific Plan Update.aprx (5/1/2025)

FIGURE 1

Tower District Specific Plan Update

Regional Location and Local Vicinity



LSA

Tower District Boundary

FIGURE 2

0 850 1700
FEET

SOURCE: Esri Outdoor Contour Map (2025)

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Tower District Specific Plan Update

Project Location

BACKGROUND

This section provides current background information on air pollutants and their health effects. It also provides current regulatory background information, including information from the California Air Resources Board's (CARB) Air Quality and Land Use Handbook[3] (CARB Handbook), a description of the general health risks of toxics, and the significance criteria for project evaluation.

AIR POLLUTANTS AND HEALTH EFFECTS

Both State and federal governments have established health-based ambient air quality standards (California Ambient Air Quality Standards [CAAQS] and National Ambient Air Quality Standards [NAAQS], respectively) for six criteria air pollutants:[4] carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Long-term exposure to elevated levels of criteria pollutants may result in adverse health effects. However, emission thresholds established by an air district are used to manage total regional emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations and could adversely affect or delay the projected attainment target year for certain criteria pollutants.

Because of the conservative nature of the thresholds and the basin-wide context of individual project emissions, there is no known direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like nitrogen oxides (NO_X) and volatile organic compounds (VOCs).

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous outdoor work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise.

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3 California Air Resources Board (CARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

4 Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Ozone

Rather than being directly emitted, O_3 (smog) forms from photochemical reactions between NO_X and VOCs. O_3 is a pungent, colorless gas. Elevated O_3 concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children. O_3 levels peak during the summer and early fall months.

Carbon Monoxide

CO forms from the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions. CO passes through the lungs into the bloodstream, where it interferes with the transfer of oxygen to body tissues.

Particulate Matter

PM is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles are those that are 10 microns or less in diameter (PM_{10}). Fine, suspended particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), is not readily filtered out by the lungs. Nitrates, sulfates, dust, and combustion particulates are major components of PM_{10} and $PM_{2.5}$. These small particles can be directly emitted into the atmosphere as byproducts of fuel combustion; through abrasion, such as tire or brake lining wear; or through fugitive dust (wind or mechanical erosion of soil). They can also be formed in the atmosphere through chemical reactions. Particulates may transport carcinogens and other toxic compounds that adhere to the particle surfaces and can enter the human body through the lungs.

Nitrogen Dioxide

NO_2 is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to O_3 formation, NO_2 also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high O_3 levels. NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels in the region. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

Lead

Leaded gasoline (phased out in the United States beginning in 1973), paint (on older houses and cars), smelters (metal refineries), and the manufacture of lead storage batteries have been the primary sources of Pb released into the atmosphere. Pb has multiple adverse neurotoxic health effects, and children are at special risk. Some Pb containing chemicals cause cancer in animals. Pb

levels in the air have decreased substantially since leaded gasoline was eliminated. Ambient lead concentrations are only monitored on an as-warranted, site-specific basis in California. On October 15, 2008, the United States Environmental Protection Agency (USEPA) strengthened the NAAQS for lead by lowering it from 1.5 to 0.15 micrograms per cubic meter ($\mu g/m^3$). The USEPA revised the monitoring requirements for lead in December 2010. These requirements focus on airports and large urban areas, resulting in an increase in 76 monitors nationally.

Volatile Organic Compounds

VOCs (also known as reactive organic gases [ROGs] and reactive organic compounds) form from the combustion of fuels and the evaporation of organic solvents. VOCs are not defined as criteria pollutants, however, because VOCs accumulate in the atmosphere more quickly during the winter, when sunlight is limited and photochemical reactions are slower, they are a prime component of the photochemical smog reaction. There are no attainment designations for VOCs.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated by the USEPA and the CARB. Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants.

TACs do not have ambient air quality standards (AAQS), but are regulated by the USEPA, the CARB, and the SJVAPCD. In 1998, the CARB identified particulate matter from diesel-fueled engines as a TAC. The CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.[5] High-volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers and truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high-volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter (DPM) is emitted from mobile sources—primarily "off-road" sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as "on-road" sources such as trucks and buses traveling on freeways and local roadways.

Although not specifically monitored, recent studies indicate that exposure to DPM may contribute significantly to a cancer risk (a risk of approximately 500 to 700 in 1,000,000) that is greater than all other measured TACs combined.[6] The technology for reducing DPM emissions from heavy-duty trucks is well established, and both State and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. The CARB

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5 CARB. 2000. Stationary Source Division and Mobile Source Control Division. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October.

6 Ibid.

anticipated that, by 2020, average statewide DPM concentrations will decrease by 85 percent from levels in 2000 with full implementation of the CARB's Diesel Risk Reduction Plan,[7] meaning that the statewide health risk from DPM is expected to decrease from 540 cancer cases in 1,000,000 to 21.5 cancer cases in 1,000,000. The CARB 2000 Diesel Risk Reduction Plan is still the most recent version and has not been updated.

Table A summarizes the sources and health effects of air pollutants discussed in this section. Table B presents a summary of CAAQS and NAAQS.

Table A: Sources and Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust • Natural events, such as decomposition of organic matter	• Reduced tolerance for exercise • Impairment of mental function • Impairment of fetal development • Death at high levels of exposure • Aggravation of some heart diseases (angina)
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust • High temperature stationary combustion • Atmospheric reactions	• Aggravation of respiratory illness • Reduced visibility • Reduced plant growth • Formation of acid rain
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Impairment of cardiopulmonary function • Plant leaf injury
Lead (Pb)	• Contaminated soil	• Impairment of blood functions and nerve construction • Behavioral and hearing problems in children
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	• Stationary combustion of solid fuels • Construction activities • Industrial processes • Atmospheric chemical reactions	• Reduced lung function • Aggravation of the effects of gaseous pollutants • Aggravation of respiratory and cardiorespiratory diseases • Increased cough and chest discomfort • Soiling • Reduced visibility
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels • Smelting of sulfur-bearing metal ores Industrial processes	• Aggravation of respiratory diseases (asthma, emphysema) • Reduced lung function • Irritation of eyes • Reduced visibility • Plant injury • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board (2021).

[7] CARB. 2000. Stationary Source Division and Mobile Source Control Division. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October.

Table B: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1-Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM_{10})[9]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		–		
Fine Particulate Matter ($PM_{2.5}$)[9]	24-Hour	-		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	9.0 µg/m³ [15]		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m³)	–	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m³)		35 ppm (40 mg/m³)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m³)		–	–	
Nitrogen Dioxide (NO_2)[10]	Annual Arithmetic Mean	0.03 ppm (57 µg/m³)	Gas Phase Chemi-luminescence	53 ppb (100 µg/m³)	Same as Primary Standard	Gas Phase Chemi-luminescence
	1-Hour	0.18 ppm (339 µg/m³)		100 ppb (188 µg/m³)	-	
Lead (Pb)[12,13]	30-Day Average	1.5 µg/m³	Atomic Absorption	–	–	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average[9]	–		0.15 µg/m³		
Sulfur Dioxide (SO_2)[11]	24-Hour	0.04 ppm (105 µg/m³)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3-Hour	–		–	0.5 ppm (1300 µg/m³)	
	1-Hour	0.25 ppm (655 µg/m³)		75 ppb (196 µg/m³)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Visibility-Reducing Particles[12]	8-Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape.	No Federal Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[10]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: California Air Resources Board (2024) (Website: https://ww2.arb.ca.gov/resources/background-air-quality-standards).

Table notes are provided on the following page.

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California Ambient Air Quality Standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact USEPA for further clarification and current national policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

[8] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24- hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[14] In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

[15] On February 7, 2024, the federal annual $PM_{2.5}$ standard was revised from 12.0 µg/m³ to 9.0 µg/m³.

°C = degrees Celsius
µg/m³ = micrograms per cubic meter
CARB = California Air Resources Board
mg/m³ = milligrams per cubic meter
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ppb = parts per billion
ppm = parts per million
USEPA = United States Environmental Protection Agency

ENERGY

Electricity

Electricity is a man-made resource. The production of electricity requires the consumption or conversion of energy resources (including water, wind, oil, gas, coal, solar, geothermal, or nuclear resources) into energy. Electricity is used for a variety of purposes (e.g., lighting, heating, cooling, and refrigeration, and for operating appliances, computers, electronics, machinery, and public transportation systems).[8]

According to the most recent data available, in 2023, California's electricity was generated primarily by natural gas (43.68 percent), solar (19.17 percent), large hydroelectric (12.55 percent), nuclear (8.22 percent), and wind (6.46 percent). Total electric generation in California in 2023 was 215,623 gigawatt-hours (GWh). In 2023, California produced approximately 76.7 percent and imported 23.3 percent of the electricity it used.[9]

The City receives its electricity from the Pacific Gas & Electric Company (PG&E). According to the California Energy Commission (CEC), total electricity consumption in the PG&E service area in 2022 was 77,886.99 gigawatt hours (GWh) (27,209.2 GWh for the residential sector and 50,677.79 GWh for the nonresidential sector).[10] Total electricity consumption in Fresno County in 2022 was 8,384.40 GWh (3,170.46 GWh for the residential sector and 5,213.94 for the nonresidential sector).[11]

Natural Gas

Natural gas is a non-renewable fossil fuel. Fossil fuels are formed when layers of decomposing plant and animal matter are exposed to intense heat and pressure under the surface of the Earth over many years. Natural gas is a combustible mixture of hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas is found in naturally occurring reservoirs in deep underground rock formations. Natural gas is used for a variety of uses (e.g., heating buildings, generating electricity, and powering appliances such as stoves, washing machines and dryers, gas fireplaces, and gas grills).[12]

Natural gas consumed in California is used for electricity generation, residential uses, industrial uses, commercial uses, and transportation uses. PG&E is the natural gas service provider for the city of Fresno. According to the CEC, total natural gas consumption in the PG&E service area in 2022 was

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8 United States Energy Information Administration (EIA). 2019. Electricity Explained. Website: https://www.eia.gov/energyexplained/electricity/ (accessed July 2025).

9 California Energy Commission (CEC). 2023b. Total System Electric Generation. Website: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2023-total-system-electric-generation (accessed July 2025).

10 California Energy Commission. 2022b. Electricity Consumption by Entity. Website: http://www.ecdms.energy.ca.gov/elecbyutil.aspx (accessed July 2025).

11 California Energy Commission. 2022a. Electricity Consumption by County. Website: http://www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed July 2025).

12 EIA. 2023b. Natural Gas Explained-Use of Natural Gas. Website: file:///P:/2024/20241643%20Fresno%20Tower%20District%20SP/BACKGROUND/General%20Plan%20EIR/Fresno-GP-Public-Review-Draft-Program-EIR.pdf (accessed July 2025).

4,421.63 million therms (1,856.08 million therms for the residential sector and 2,565.55 million therms for the nonresidential sector).[13] Total natural gas consumption in Fresno County in 2022 was 319.43 million therms (108.43 million therms for the residential sector and 210.99 million therms for the nonresidential sector).[14]

Fuel

Petroleum is also a non-renewable fossil fuel. Petroleum is a thick, flammable, yellow-to-black mixture of gaseous, liquid, and solid hydrocarbons that occurs naturally beneath the earth's surface. Petroleum is primarily recovered by oil drilling. It is refined into a large number of consumer products, primarily fuel oil and gasoline.

The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 miles per gallon (mpg) in 1980 to 22.0 mpg in 2015.[15] Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. The Act, which originally mandated a national fuel economy standard of 35 mpg by year 2020, applies to cars and light trucks of Model Years 2011 through 2020.[16] In 2012, the federal government raised the fuel economy standard to 54.5 mpg for cars and light-duty trucks by Model Year 2025.[17]

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. According to the most recent data available, total gasoline consumption in California was 314,150 thousand barrels or 1,586.1. trillion British thermal units (BTU) in 2023.[18] Of the total gasoline consumption, 296,948 thousand barrels or 1,499.3 trillion BTU were consumed for transportation.[19]

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13 California Energy Commission. 2022d. Gas Consumption by Entity. Website: https://ecdms.energy.ca.gov/gasbyutil.aspx (accessed July 2025).

14 California Energy Commission. 2022c. Gas Consumption by County. Website: https://ecdms.energy.ca.gov/gasbycounty.aspx (accessed July 2025).

15 U.S. Department of Transportation (USDOT). "table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Website: https://www.bts.gov/archive/publications/national_transportation_statistics/table_04_23 (accessed July 2025).

16 U.S. Department of Energy. 2007. "Energy Independence & Security Act of 2007." Website: https://afdc.energy.gov/laws/eisa (accessed July 2025).

17 The White House, President Barack Obama. Obama Administration Finalizes Historic 54.5 MPG Fuel Efficiency Standards. Website: https://obamawhitehouse.archives.gov/the-press-office/2012/08/28/obama-administration-finalizes-historic-545-MPG-fuel-efficiency-standard (accessed July 2025).

18 A British thermal unit (BTU) is defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

19 EIA. 2023a. California State Profile and Energy Estimates. Table F3: Motor gasoline consumption, price, and expenditure estimates, 2023. Website: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA (accessed July 2025).

GREENHOUSE GASES

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2 degrees Celsius (°C) or 1.1 ± 0.4 degrees Fahrenheit (°F) in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide (CO_2) and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[20]

GHGs are present in the atmosphere naturally, are released by natural sources, or form 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:

- CO_2
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- 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. Although manmade GHGs include naturally occurring GHGs such as CO_2, methane, and N_2O, some gases, like 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. For the purposes of this air quality analysis, the term "GHGs" will refer collectively to the six gases listed above.

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 global warming potential 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

[20] The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the naturally occurring greenhouse effect is necessary to keep our planet at a comfortable temperature.

("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). Table C shows the GWP for each type of GHG. For example, SF_6 is 23,900 times more potent at contributing to global warming than CO_2.

Table C: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide	50–200	1
Methane	12	25
Nitrous Oxide	114	310
HFC-23	270	11,700
HFC-134a	14	140
HFC-152a	1.4	140
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoromethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: *Second Update to the Climate Change Scoping Plan: Building on the Framework* (CARB 2017b). Website: www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents (accessed June 2025).
CARB = California Air Resources Board
HFC = hydrofluorocarbons
PFC = perfluorocarbons

The following discussion summarizes the characteristics of the six GHGs and black carbon.

Carbon Dioxide

In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals, and plants, volcanic outgassing, decomposition of organic matter and evaporation from the oceans. Human caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO_2 each year, far outweighing the 7 billion tons of manmade emissions of CO_2 each year. Nevertheless, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of manmade CO_2, and consequently, the gas is building up in the atmosphere.

In 2022, total annual CO_2 accounted for approximately 81.2 percent of California's overall GHG emissions.[21] Transportation is the single largest source of CO_2 in California, which is primarily comprised of on-road travel. Electricity production, industrial and residential sources also make important contributions to CO_2 emissions in California.

[21] CARB. 2022a. *GHGs Descriptions & Sources in California*. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed June 2025).

Methane

CH_4 is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation, manure management, and rice cultivation are also significant sources of CH_4 in California. Total annual emissions of CH_4 accounted for approximately 9.8 percent of GHG emissions in California in 2022.[22]

Nitrous Oxide

N_2O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N_2O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California. N_2O emissions accounted for approximately 3.4 percent of GHG emissions in California in 2022.[23]

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.[24] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry leads to greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 5.6 percent of GHG emissions in California in 2022.[25]

Black Carbon

Black carbon is the most strongly light-absorbing component of PM formed by burning fossil fuels such as coal, diesel, and biomass. Black carbon is emitted directly into the atmosphere in the form of $PM_{2.5}$ and is the most effective form of PM, by mass, at absorbing solar energy. Per unit of mass in the atmosphere, black carbon can absorb one million times more energy than CO_2.[26] Black carbon contributes to climate change both directly, such as absorbing sunlight, and indirectly, such as

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22 CARB. 2022a. *GHGs Descriptions & Sources in California*. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed June 2025).

23 Ibid.

24 The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

25 CARB. 2022a. Op. cit.

26 United States Environmental Protection Agency (USEPA). 2015. Black Carbon, Basic Information. February 14. Website: 19january2017snapshot.epa.gov/www3/airquality/blackcarbon/basic.html (accessed June 2025).

affecting cloud formation. However, because black carbon is short-lived in the atmosphere, it can be difficult to quantify its effect on global warming.

Most U.S. emissions of black carbon come from mobile sources (52 percent), particularly from diesel-fueled vehicles. The other major source of black carbon is open biomass burning, including wildfires, although residential heating and industry also contribute. The CARB estimates that the annual black carbon emissions in California will be reduced approximately 50 percent below 2013 levels by 2030.[27]

[27] CARB. 2017c. *Short-Lived Climate Pollutant Reduction Strategy.* March. Website: https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf (accessed June 2025).

REGULATORY SETTING

AIR QUALITY REGULATIONS

The USEPA and the CARB regulate direct emissions from motor vehicles. The SJVAPCD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

Federal Regulations

Federal Clean Air Act

The 1970 federal Clean Air Act (CAA) authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The federal Clean Air Act Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the CAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans to demonstrate how they will achieve the national standards by specified dates.

State Regulations

California Clean Air Act

In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain CAAQS for CO, O_3, SO_2, and NO_2 by the earliest practical date. The CCAA provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

California Air Resources Board

The 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.

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[28] that 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, air pollution studies have shown an association between respiratory and other non-cancer 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, daycare centers, schools, and playgrounds.

Land uses that can produce 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:

- 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
- 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 help land use agencies determine when to further examine project sites for actual health risk associated with the location of new sensitive land uses.

Regional Regulations

San Joaquin Valley Air Pollution Control District

The SJVAPCD is responsible for controlling emissions primarily from stationary sources. The SJVAPCD maintains air quality monitoring stations throughout the basin. The SJVAPCD, in coordination with the eight county transportation agencies, is also responsible for developing, updating, and

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

implementing air quality attainment plans for the San Joaquin Valley Air Basin (SJVAB). The SJVAPCD also has roles under the California Environmental Quality Act (CEQA).

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:

- 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; and
- Information for use in air quality assessments and environmental documents, including air quality, regulatory setting, climate, and topography data.

Current Air Quality Plans. The SJVAPCD is responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SJVAB. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. The SJVAPCD does not have one single AQMP for criteria pollutants, rather the SJVAPCD address each criteria pollutant with its own Plan. The SJVAPCD has the following AQMPs:

- 2024 Plan for the 2012 Annual $PM_{2.5}$ Standard
- 2022 Plan for the 2015 8-Hour Ozone Standard
- 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards
- 2016 Moderate Area Plan for the 2012 $PM_{2.5}$ Standard
- 2016 Plan for the 2008 8-Hour Ozone Standard
- 2013 Plan for the Revoked 1-Hour Ozone Standard
- 2007 PM_{10} Maintenance Plan
- 2004 Revision to the California State Implementation Plan for Carbon Monoxide

The SJVAPCD's AQMPs incorporate the latest scientific and technological information and planning assumptions, including updated emission inventory methodologies for various source categories. The SJVAPCD's AQMPs included the integrated strategies and measures needed to meet the NAAQS, implementation of new technology measures, and demonstrations of attainment of the 1-hour and 8-hour ozone NAAQS as well as the latest 24-hour and annual $PM_{2.5}$ standards.

The SJVAPCD's current air quality plans are discussed below.

Ozone Plans. The SJVAPCD's Governing Board approved the 2022 Plan for the 2015 8-hour ozone standard on December 15, 2022. The comprehensive strategy in this plan will reduce NO_x

emissions by 72 percent by 2037 and will bring the San Joaquin Valley into attainment of USEPA's 2015 8-hour ozone standard as expeditiously as practicable by the 2037 attainment deadline.

Particulate Matter Plans. The SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007 to assure the SJVAB's continued attainment of the USEPA's PM_{10} standard. The USEPA designated the valley as an attainment/maintenance area for PM_{10}.

The 2008 $PM_{2.5}$ Plan builds upon the comprehensive strategy adopted in the 2007 Ozone Plan to bring the SJVAB into attainment of the 1997 national standards for $PM_{2.5}$. The USEPA has identified NO_x and SO_2 as precursors that must be addressed in air quality plans for the 1997 $PM_{2.5}$ standards. The 2008 $PM_{2.5}$ Plan is a continuation of the SJVACPD's strategy to improve the air quality in the SJVAB.

The SJVAPCD prepared the 2012 $PM_{2.5}$ Plan to bring the San Joaquin Valley into attainment of the USEPA's most recent 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$. The CARB approved the SJVAPCD's 2012 $PM_{2.5}$ Plan at a public hearing on January 24, 2013. The plan, approved by the SJVAPCD Governing Board on December 20, 2012, will bring the San Joaquin Valley into attainment of USEPA's 1997 $PM_{2.5}$ standard as expeditiously as practicable, but no later than, December 31, 2020.

The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ federal standards on November 15, 2018. This plan addresses the USEPA federal 1997 annual $PM_{2.5}$ standard of 15 $\mu g/m^3$ 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 $\mu g/m^3$. This plan demonstrates attainment of the federal $PM_{2.5}$ standards as expeditiously as practicable. More recently, the SJVAPCD adopted the *2024 Plan for the 2012 Annual PM2.5 Standard* on June 20, 2024, to fulfill the remaining Clean Air Plan requirements, including the final modeling analysis, attainment strategy and emission reduction commitments, reasonable further progress/quantitative milestones, and contingency measures. This Plan demonstrates expeditious attainment of the 2012 PM2.5 standard by 2030.

Rules and Regulations. The SJVAPCD rules and regulations that may apply to the proposed project include, but are not limited to:

- **Rule 2201—New and Modified Stationary Source Review Rule.** This rule provides the review of new and modified stationary sources of air pollution to operate without interfering with the attainment or maintenance of ambient air quality standards and results in no net increase in emissions above specified thresholds.

- **Rule 2280—Portable Equipment Registration.** Portable equipment used at project sites for less than six consecutive months must be registered with the SJVAPCD. The SJVAPCD will issue the registrations 30 days after receipt of the application.

- **Rule 2303-Mobile Source Emission Reduction Credits**. A project may qualify for SJVAPCD vehicle emission reduction credits if it meets the specific requirements of Rule 2303 for any of the following categories:

- Low-Emission Transit Buses
- Zero-Emission Vehicles
- Retrofit Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles
- Retrofit Heavy-Duty Vehicles

- **Rule 4102—Nuisance.** The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials.

- **Rule 4601—Architectural Coatings.** The purpose of this rule is to limit VOC emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling.

- **Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations.** The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. The paving operations for new development and existing paved surfaces will be subject to Rule 4641.

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

- **Regulation VIII—Fugitive PM_{10} Prohibitions.** Rules 8011–8081 are designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, and carryout and track out. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules

- **Rule 9410 – Employer Based Trip Reduction.** The purpose of this rule is to reduce vehicle miles traveled (VMT) from private vehicles used by employees to commute to and from their worksites in order to reduce emissions of NO_x, VOC and PM. The rule requires larger employers (those with 100 or more eligible employees) to establish employee trip reduction programs to reduce VMT, reducing emissions associated with work commutes. The rule uses a menu-based Employer Trip Reduction Implementation Plan and periodic reporting requirements to evaluate performance on a phased-in compliance schedule.

- **Rule 9510—Indirect Source Review.** This rule reduces the impact of NO_x and PM_{10} emissions from new development projects. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through on-site mitigation, off-site SJVAPCD-administered projects, or a combination of the two. Compliance with SJVAPCD Rule 9510 reduces emissions impacts through incorporation of on-site measures as well as payment of an off-site fee that funds emission

reduction projects in the SJVAB. The emissions analysis for Rule 9510 is detailed and is dependent on the exact project design that is expected to be constructed or installed. Compliance with Rule 9510 is separate from the CEQA process, though the control measures used to comply with Rule 9510 may be used to mitigate significant air quality impacts.

- Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc., warrant the closest scrutiny, but consideration could also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD.

  Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. The SJVAPCD has determined the common land use types that are known to produce odors in the Basin. These types are shown in Table D, along with recommended distances to screen for potential odor impacts.

Table D: Screening Levels for Potential Odor Sources

Odor Generator	Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile

Source: San Joaquin Valley Air Pollution Control District (2015b).

Local Regulations

The following is a summary of the applicable policies included in the City's approved General Plan that are related to air quality and applicable to the proposed project.

City of Fresno General Plan

The approved General Plan is a set of policies and programs that form a blueprint for the physical development of the city. The following objectives and policies related to air quality are presented in various elements of the approved General Plan:

Resource Conservation and Resilience Element.

Objective RC-4: In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take necessary actions to achieve and maintain compliance with State and federal air quality standards for criteria pollutants.

- **Policy RC-4-a: Support Regional Efforts.** Support and lead, where appropriate, regional, State and federal programs and actions for the improvement of air quality, especially the SJVAPCD's efforts to monitor and control air pollutants from both stationary and mobile sources and implement Reasonably Available Control Measures in the Ozone Attainment Plan.

- **Policy RC-4-b: Conditions of Approval.** Develop and incorporate air quality maintenance requirements, compatible with Air Quality Attainment and Maintenance Plans, as conditions of approval for General Plan amendments, community plans, Specific Plans, neighborhood plans, Concept Plans, and development proposals.

- **Policy RC-4-c: Evaluate Impacts with Models.** Continue to require the use of computer models used by SJVAPCD to evaluate the air quality impacts of plans and projects that require such environmental review by the City.

- **Policy RC-4-d: Forward Information.** Forward information regarding proposed General Plan amendments, community plans, Specific Plans, neighborhood plans, Concept Plans, and development proposals that require air quality evaluation, and amendments to development regulations to the SJVAPCD for their review of potential air quality and health impacts.

- **Policy RC-4-e: Support Employer-Based Efforts.** Support and promote employer implementation of staggered work hours and employee incentives to use carpools, public transit, and other measures to reduce vehicular use and traffic congestion.

- **Policy RC-4-f: Municipal Operations and Fleet Actions.** Continue to control and reduce air pollution emissions from vehicles owned by the City and municipal operations and facilities by undertaking the following:

    - Expand the use of alternative fuel, electric, and hybrid vehicles in City fleets.

    - Create preventive maintenance schedules that will ensure efficient engine operation.

    - Include air conditioning recycling and charging stations in the City vehicle maintenance facilities, to reduce Freon gases being released into the atmosphere and electrostatic filtering systems in City maintenance shops, when feasible or when required by health regulations.

    - Use satellite corporation yards for decentralized storage and vehicle maintenance.

    - Convert City-owned emergency backup generators to natural gas fuels whenever possible, and create an advanced energy storage system.

- **Policy RC-4-j: All Departments.** Continue to develop and implement in all City departments, operational policies to reduce air pollution.

- **Policy RC-4-k: Electric Vehicle Charging.** Develop standards to facilitate electric vehicle charging infrastructure in both new and existing public and private buildings, in order to accommodate these vehicles as the technology becomes more widespread.

Healthy Communities Element.

- **Policy HC-3-b: Housing-Related Illness Assessment and Testing.** Support efforts to provide community assessment and testing programs for housing-related illnesses (i.e., blood lead levels, respiratory health, and skin conditions).

- **Policy HC-3-d: Green Standards for Affordable Housing.** Provide appropriate incentives for affordable housing providers, agencies, non-profit, and market rate developers to use LEED and CALGreen Tier 1 or Tier 2 standards or third-party equivalents.

- **Policy HC-3-f: New Drive-Through Facilities.** Incorporate design review measures in the Development Code to reduce vehicle emissions resulting from queued idling vehicles at drive-through facilities proximate to residences.

ENERGY REGULATIONS

Federal and State agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation (USDOT), the United States Department of Energy (DOE), and the United States Environmental Protection Agency (USEPA) are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy related research and development projects, and through funding for transportation infrastructure improvements. On the state level, the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) are two agencies with authority over different aspects of energy.

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies and serves the public interest by protecting consumers and ensuring the provision of safe, reliable utility service and infrastructure at reasonable rates, with a commitment to environmental enhancement and a healthy California economy.

The CEC is the state's primary energy policy and planning agency. The CEC forecasts future energy needs, promotes energy efficiency, supports energy research, develops renewable energy resources and plans for/directs state response to energy emergencies. Some of the more relevant federal and state energy-related laws and plans are discussed below.

Federal Policies and Regulations

Energy Policy Act of 2005

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under this Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products (including hybrid vehicles), building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment

Corporate Average Fuel Economy (CAFE) Standards

On March 31, 2022, the National Highway Traffic Safety Administration (NHTSA) finalized the Corporate Average Fuel Economy (CAFE) standards for Model Years 2024–2026 Passenger Cars and Light Trucks. The amended CAFE standards would require an industry wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8 percent annually for model years 2024–2025, and 10 percent annually for model year 2026. The final standards are estimated to save about 234 billion gallons of gas between model years 2030 to 2050.[29]

State Regulations

Assembly Bill 1575, Warren-Alquist Act.

In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575 (also known as the Warren-Alquist Act), which created the CEC. The statutory mission of the CEC is to forecast future energy needs; license power plants of 50 megawatts (MW) or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code (PRC) Section 21100(b)(3) and *State CEQA Guidelines* Section 15126.4 to require EIRs to include, where relevant, mitigation measures proposed to minimize the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F to the *State CEQA Guidelines*. Appendix F assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the *State CEQA Guidelines* also states that the goal of conserving energy implies the wise and efficient use of energy and the means of achieving this goal, including (1) decreasing overall per capita energy consumption; (2) decreasing reliance on fossil fuels such as coal, natural gas, and oil; and (3) increasing reliance on renewable energy sources.

Senate Bill 1389, Energy: Planning and Forecasting.

In 2002, the State Legislature passed Senate Bill (SB) 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the

[29] USEPA. 2024b. The Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021-2026. Website: https://www.epa.gov/regulations-emissions-vehicles-and-engines/safer-affordable-fuel-efficient-safe-vehicles-final-rule (accessed July 2025).

California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles (ZEVs) and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

In compliance with the requirements of SB 1389, the CEC adopts an Integrated Energy Policy Report every 2 years and an update every other year. The most recently adopted reports includes the *2023 Integrated Energy Policy Report*[30] and the *2024 Integrated Energy Policy Report Update*[31]. The *Integrated Energy Policy Report* covers a broad range of topics, including decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast. The *Integrated Energy Policy Report* provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs.

Renewable Portfolio Standards.

SB 1078 established the California Renewable Portfolio Standards program in 2002. SB 1078 initially required that 20 percent of electricity retail sales be served by renewable resources by 2017; however, this standard has become more stringent over time. In 2006, SB 107 accelerated the standard by requiring that the 20 percent mandate be met by 2010. In April 2011, SB 2 required that 33 percent of electricity retail sales be served by renewable resources by 2020. In 2015, SB 350 established tiered increases to the Renewable Portfolio Standards of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. In 2018, SB 100 increased the requirement to 60 percent by 2030 and required that all State's electricity to come from carbon-free resources by 2045. SB 100 took effect on January 1, 2019.[32]

California Energy Code.

Energy consumption by new buildings in California is regulated by the Building Energy Efficiency Standards in Part 6 of Title 24 of the California Code of Regulations (CCR), known as the Energy Code. The CEC first adopted the Building Energy Efficiency Standards for Residential and Non-residential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. The Energy Code is updated every 3 years, with the most recent update consisting of the 2022 Energy Code that became effective January 1, 2023. Mid-cycle supplements to the 2022 Energy Code

30 CEC. 2023a. *2023 Integrated Energy Policy Report*. California Energy Commission. Docket Number: 23-IEPR-01.

31 CEC. 2024. *2024 Integrated Energy Policy Report Update*. California Energy Commission. Docket Number: 24-IEPR-01

32 California Public Utilities Commission (CPUC). n.d. Renewables Portfolio Standards (RPS) Program. Website: https://www.cpuc.ca.gov/rps/ (accessed July 2025).

will become effective on July 1, 2024. The efficiency standards apply to both new construction and rehabilitation of both residential and nonresidential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in the Energy Code.

California Green Building Standards Code

In 2010, the California Building Standards Commission adopted Part 11 of the Title 24 Building Energy Efficiency Standards, referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code took effect on January 1, 2011. The CALGreen Code is updated on a regular basis, with the most recent update consisting of the 2022 CALGreen Code standards that became effective January 1, 2023. The CALGreen Code established mandatory measures for residential and nonresidential building construction and encouraged sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce GHG emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and nonresidential buildings subject to the standard.

California Energy Efficiency Strategic Plan.

On September 18, 2008, the California Public Utilities Commission (CPUC) adopted California's first Long-Term Energy Efficiency Strategic Plan, presenting a roadmap for energy efficiency in California.[33] The Plan articulates a long-term vision and goals for each economic sector and identifies specific near-term, mid-term, and long-term strategies to assist in achieving those goals. The Plan also reiterates the following four specific programmatic goals known as the "Big Bold Energy Efficiency Strategies" that were established by the CPUC in Decisions D.07-10-032 and D.07-12-051:

- All new residential construction will be zero net energy (ZNE) by 2020.
- All new commercial construction will be ZNE by 2030.
- 50 percent of commercial buildings will be retrofit to ZNE by 2030.
- 50 percent of new major renovations of State buildings will be ZNE by 2025.

Local Regulations

The following is a summary of the applicable policies included in the City's General Plan that are related to energy conservation and applicable to the proposed project.

[33] California Public Utilities Commission (CPUC). Energy Efficiency Strategic Plan. Website: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/energy-efficiency-strategic-plan (accessed July 2025).

The Fresno General Plan is a set of policies and programs that form a blueprint for the physical development of the city. To reduce the potential use of electricity, natural gas, and fuel, the city has the following policies related to energy as presented in the various elements of the General Plan:

Resource Conservation Element

- **Policy RC-2-a: Link Land Use to Transportation.** Promote mixed-use, higher density infill development in multi-modal corridors. Support land use patterns that make more efficient use of the transportation system and plan future transportation investments in areas of higher-intensity development. Discourage investment in infrastructure that would not meet these criteria.

- **Policy RC-2-b: Provide Infrastructure for Mixed-Use and Infill.** Promote investment in the public infrastructure needed to allow mixed-use and denser infill development to occur in targeted locations, such as expanded water and wastewater conveyance systems, complete streetscapes, parks and open space amenities, and trails. Discourage investment in infrastructure that would not meet these criteria.

- **Policy RC-4-d: Forward Information.** Forward information regarding proposed Specific Plan amendments, community plans, Specific Plans, neighborhood plans, Concept Plans, and development proposals that require air quality evaluation, and amendments to development regulations to the SJVAPCD for their review of potential air quality and health impacts.

- **Policy RC-4-e: Support Employer-Based Efforts.** Support and promote employer implementation of staggered work hours and employee incentives to use carpools, public transit, and other measures to reduce vehicular use and traffic congestion.

- **Policy RC-4-f: Municipal Operations and Fleet Actions.** Continue to control and reduce air pollution emissions from vehicles owned by the City and municipal operations and facilities by undertaking the following:

    - Expand the use of alternative fuel, electric, and hybrid vehicles in City fleets.

    - Create preventive maintenance schedules that will ensure efficient engine operation.

    - Include air conditioning recycling and charging stations in the City vehicle maintenance facilities, to reduce Freon gases being released into the atmosphere and electrostatic filtering systems in City maintenance shops, when feasible or when required by health regulations.

    - Use satellite corporation yards for decentralized storage and vehicle maintenance.

    - Convert City-owned emergency backup generators to natural gas fuels whenever possible, and create an advanced energy storage system.

- **Policy RC-8-a: Existing Standards and Programs.** Continue existing beneficial energy conservation programs, including adhering to the California Energy Code in new construction and major renovations

- **Policy RC-8-b: Energy Reduction Targets.** Strive to reduce per capita residential electricity use to 1,800 kWh per year and non-residential electricity use to 2,700 kWh per year per capita by developing and implementing incentives, design and operation standards, promoting alternative energy sources, and cost-effective savings.

  Commentary: These targets represent 28 and 30 percent reductions respectively, from the 2010 rate of consumption.

- **Policy RC-8-c: Energy Conservation in New Development.** Consider providing an incentive program for new buildings that exceed California Energy Code requirements by fifteen percent.

- **Policy RC-8-d: Incentives.** Establish an incentive program for residential developers who commit to building all of their homes to ENERGY STAR performance guidelines.

  Commentary: See also Policy RC-7-j on PACE financing for energy efficient retrofits.

- **Policy RC-8-e: Energy Use Disclosure.** Promote compliance with State law mandating disclosure of a building's energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building.

- **Policy RC-8-f: City Heating and Cooling.** Reduce energy use at City facilities by updating heating and cooling equipment and installing "smart lighting" where feasible and economically viable.

- **Policy RC-8-h: Solar Assistance.** Identify and publicize information about financial mechanisms for private solar installations and provide over-the-counter permitting for solar installations meeting specified standards, which may include maximum size (in kV) of units that can be so draft.

- **Policy RC-8-i: Renewable Target.** Adopt and implement a program to increase the use of renewable energy to meet a given percentage of the city's peak electrical load within a given timeframe.

- **Policy RC-8-j: Alternative Fuel Network.** Support the development of a network of integrated charging and alternate fuel station for both public and private vehicles, and if feasible, open up municipal stations to the public as part of network development.

- **Policy RC-8-k: Energy Efficiency Education.** Provide long-term and on-going education of homeowners and businesses as to the value of energy efficiency and the need to upgrade existing structures on the regular basis as technology improves and structures age.

Urban Form, Land Use, and Design Element

- **Policy UF-14-a: Design Guidelines for Walkability.** Develop and use design guidelines and standards for a walkable and pedestrian-scaled environment with a network of streets and connections for pedestrians and bicyclists, as well as transit and autos.

  Commentary: These guidelines will highlight how to achieve these design ideas and avoid barriers to access, such as:

  - Walls and fences that separate related uses or isolate neighborhoods;
  - Over reliance on cul-de-sacs and dead end streets that cut off access within neighborhoods;
  - Disconnected bike and pedestrian paths;
  - Wide streets that lack pedestrian support, such as sidewalks, median strips, and a landscaped strip that separates pedestrians from the street;
  - Street front parking lots that separate pedestrian from commercial operations;
  - Retail centers that are exclusively auto-oriented;
  - Transit stops that are not easily accessible from an individual's starting point and destination; and
  - Long blocks that discourage walking.

Mobility and Transportation Element

- **Policy MT-1-j: Transportation Improvements Consistent with Community Character.** Prioritize transportation improvements that are consistent with the character of surrounding neighborhoods and supportive of safe, functional and Complete Neighborhoods; minimize negative impacts upon sensitive land uses such as residences, hospitals, schools, natural habitats, open space areas, and historic and cultural resources.

  - In implementing this policy, the City will design improvements to:
  - Facilitate provision of multi-modal transportation opportunities;
  - Provide added safety, including appropriate traffic calming measures;
  - Promote achievement of air quality standards;
  - Provide capacity in a cost effective manner; and
  - Create improved and equitable access with increased efficiency and connectivity.

- **Policy MT-4-a: Active Transportation Plan.** To the extent consistent with this Specific Plan, continue to implement and periodically update the Active Transportation Plan to meet State standards and requirements for recommended improvements and funding proposals as determined appropriate and feasible.

- **Policy MT-8-b: Transit Serving Residential and Employment Nodes.** Identify the location of current and future residential and employment concentrations and Activity Centers throughout the transit service area in order to facilitate planning and implementation of optimal transit services for these uses. Work with California State University, Fresno to determine locations within the campus core for bus stops.

- **Policy MT-10-c: Transportation Demand Management Guidelines.** Establish transportation demand management guidelines to allow for reduced off-street parking requirements

GREENHOUSE GAS REGULATORY SETTING

This section describes regulations related to GHGs at the federal, State, and local level.

Federal Regulations

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 CAA.

Although 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, including 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 CAA, finding that seven GHGs (CO_2, CH_4, N_2O, HFCs, NF_3, PFCs, and 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.

State Regulations

The CARB is 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 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) of 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 CO_2e, or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT 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); and
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e).

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 EOs 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. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[34] to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

Most recently, the 2022 Scoping Plan[35] was approved in December 2022 and assesses progress towards achieving the SB 32 2030 target and lay out a path to achieve 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

34 CARB. 2017a. *California's 2017 Climate Change Scoping Plan*. November.

35 CARB. 2021. *2022 Scoping Plan Update*. May 10. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed June 2025).

of current hydrogen supply. As discussed in the 2022 Scoping Plan, EO N-79-20 requires all new passenger vehicles sold in California to be zero-emission by 2035 and that all other fleets transition to zero-emission as fully as possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.

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 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 SCSs. The SCSs are included with the Regional Transportation Plan, 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. The Alternative Planning Strategy identifies the impediments to achieving the targets.

Executive Order B-30-15 (2015)

Governor Jerry Brown signed Executive Order (EO) 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.

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. 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; and
- Increasing 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 non-renewable 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 743 (Steinberg, 2013)

SB 743, which was signed into law in 2013, initiated an update to the CEQA Guidelines to change how lead agencies evaluate transportation impacts under CEQA, with the goal of better measuring the actual transportation-related environmental impacts of any given project. Starting on July 1, 2020, agencies analyzing the transportation impacts of new projects must now look at a metric known as vehicle miles traveled (VMT) instead of LOS. The goal of SB 743 is to promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of a multimodal transportation system, and providing clean, efficient access to destinations.

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

In summer 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 EO 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 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 CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emission data that are collected by CARB was posted in December 2016.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which raises California's Renewables 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.

Assembly Bill 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. This statutory commitment builds upon prior Executive Orders B-55-18 and N-79-20, which established key climate goals, including carbon neutrality, net negative emissions, and the transition to zero-emission vehicles and equipment.

Regional Regulations

San Joaquin Valley Air Pollution Control District

Fresno is within the SJVAB, which is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD has regulatory authority over certain stationary and industrial GHG emission sources and provides voluntary technical guidance on addressing GHGs for other emission sources in a CEQA context. District initiatives related to GHGs are described below.

Climate Change Action Plan. The San Joaquin Valley Air Pollution Control District Climate Change Action Plan (CCAP) was adopted on August 21, 2008. The CCAP includes suggested best performance standards for proposed development projects. However, the SJVAPCD's CCAP was adopted in 2009 and was prepared based on the State's 2020 GHG targets, which are now superseded by State policies (i.e., the 2019 CALGreen Code) and the 2030 GHG targets, established in SB 32.

Fresno Council of Governments.¶

Fresno Council of Governments (FCOG) is responsible for regional transportation planning in Fresno County and participates in developing mobile source emission inventories used in air quality attainment plans.

Regional Transportation Plan/Sustainable Communities Strategy. Regional Transportation Plans (RTPs) are State-mandated plans that identify long-term transportation needs for a region's transportation network. FCOG's 2022 RTP charts the long-range vision of regional transportation in Fresno county through the year 2046. The RTP identifies existing and future transportation related needs, while considering all modes of travel, analyzing alternative solutions, and identifying the region's funding priorities and multiple programs included within it. Senate Bill (SB) 375, which went into effect in 2009, added statutes to the California Government Code to encourage planning practices that create sustainable communities. It calls for each metropolitan planning organization to prepare a Sustainable Communities Strategy (SCS) as an integrated element of the RTP that is to be updated every 4 years. The SCS is intended to show how integrated land use and transportation planning can lead to lower greenhouse gas emissions from automobiles and light trucks. Fresno COG has included the SCS in its 2022 RTP.

Local Regulations

The following is a summary of the applicable policies included in the City's General Plan that are related to GHGs and applicable to the proposed project.

City of Fresno General Plan

The City of Fresno General Plan provides goals, policies, and action items that work to meet or exceed all current and future state-mandated targets for reducing emissions of GHGs. The following policies from the General Plan would apply to the proposed project:

Mobility and Transportation Element.

Objective MT-4: Establish and maintain a continuous, safe, and easily accessible bikeways system throughout the metropolitan area to reduce vehicle use, improve air quality and the quality of life, and provide public health benefits.

Objective MT-8: Provide public transit options that serve existing and future concentrations of residences, employment, recreation and civic uses and are feasible, efficient, safe, and minimize environmental impacts.

Resource Conservation and Resilience Element.

Objective RC-2: Promote land uses that conserve resources.

- **Policy RC-2-a: Link Land Use to Transportation.** Promote mixed-use, higher density infill development in multi-modal corridors. Support land use patterns that make more efficient use of the transportation system and plan future transportation investments in areas of higher-intensity development. Discourage investment in infrastructure that would not meet these criteria.

- **Policy RC-2-b: Provide Infrastructure for Mixed-Use and Infill.** Promote investment in the public infrastructure needed to allow mixed-use and denser infill development to occur in targeted locations, such as expanded water and wastewater conveyance systems, complete streetscapes, parks and open space amenities, and trails. Discourage investment in infrastructure that would not meet these criteria.

- **Policy RC-4-c: Evaluate Impacts with Models.** Continue to require the use of computer models used by SJVAPCD to evaluate the air quality impacts of plans and projects that require such environmental review by the City.

- **Policy RC-4-i: Methane Capture.** Continue to pursue opportunities to reduce air pollution by using methane gas from the old City landfill and the City's wastewater treatment process.

Objective RC-5: In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take timely, necessary, and the most cost-effective actions to achieve and maintain reductions in greenhouse gas emissions and all strategies that reduce the causes of climate change in order to limit and prevent the related potential detrimental effects upon public health and welfare of present and future residents of the Fresno community.

- **Policy RC-5-a: Support State Goal to Reduce Statewide GHG Emissions.** As is consistent with State law, strive to meet AB 32 goal to reduce greenhouse gas emissions to 1990 levels by 2020 and strive to meet a reduction of 80 percent below 1990 levels by 2050 as stated in Executive Order S-03-05. As new statewide GHG reduction targets and dates are set by the State update the City's Greenhouse Gas Reduction Plan to include a comprehensive strategy to achieve consistency with those targets by the dates established.

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- **Policy RC-5-c: GHG Reduction through Design and Operations.** Increase efforts to incorporate requirements for GHG emission reductions in land use entitlement decisions, facility design, and operational measures subject to City regulation through the following measures and strategies:
    - Promote the expansion of incentive-based programs that involve certification of projects for energy and water efficiency and resiliency. These certification programs and scoring systems may include public agency "Green" and conservation criteria, Energy Star™ certification, CALGreen Tier 1 or Tier 2, Leadership in Energy and Environmental Design (LEED™) certification, etc.
    - Promote appropriate energy and water conservation standards and facilitate mixed-use projects, new incentives for infill development, and the incorporation of mass transit, bicycle and pedestrian amenities into public and private projects.
    - Require energy and water audits and upgrades for water conservation, energy efficiency, and mass transit, pedestrian, and bicycle amenities at the time of renovation, change in use, change in occupancy, and change in ownership for major projects meeting review thresholds specified in an implementing ordinance.
    - Incorporate the City's "Guidelines for Ponding Basin/Pond Construction and Management to Control Mosquito Breeding" as conditions of approval for any project using an on-site stormwater basin to prevent possible increases in vector-borne illnesses associated with global climate change.
    - Periodically evaluate the City's facility maintenance practices to determine whether there are additional opportunities to reduce GHGs through facility cleaning and painting, parks maintenance, road maintenance, and utility system maintenance.
    - Periodically evaluate standards and mitigation strategies for highly vehicle-dependent land uses and facilities, such as drive-through facilities and auto-oriented development.
- **Policy RC-5-e: Ensure Compliance.** Ensure ongoing compliance with GHG emissions reduction plans and programs by requiring that air quality measures are incorporated into projects' design, conditions of approval, and mitigation measures.
- .
- **Policy RC-5-g: Evaluate Impacts with Models.** Continue to use computer models such as those used by SJVAPCD to evaluate greenhouse gas impacts of plans and projects that require such review.

Objective RC-8: Reduce the consumption of non-renewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources.

- **Policy RC-8-a: Existing Standards and Programs.** Continue existing beneficial energy conservation programs, including adhering to the California Energy Code in new construction and major renovations.

- **Policy RC-8-b: Energy Reduction Targets.** Strive to reduce per capita residential electricity use to 1,800 kWh per year and non-residential electricity use to 2,700 kWh per year per capita by developing and implementing incentives, design and operation standards, promoting alternative energy sources, and cost-effective savings.

- **Policy RC-8-c: Energy Conservation in New Development.** Consider providing an incentive program for new buildings that exceed California Energy Code requirements by fifteen percent.

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- **Policy RC-8-e: Energy Use Disclosure.** Promote compliance with State law mandating disclosure of a building's energy data and rating of the previous year to prospective buyers and lessees of the entire building or lenders financing the entire building.

- **Policy RC-8-f: City Heating and Cooling.** Reduce energy use at City facilities by updating heating and cooling equipment and installing "smart lighting" where feasible and economically viable.

- **Policy RC-8-g: Revolving Energy Fund.** Create a City Energy Fund which uses first year savings and rebates from completed City-owned energy efficiency projects to provide resources for additional energy projects. Dedicate this revolving fund to the sole use of energy efficiency projects that will pay back into the fund.

- **Policy RC-8-h: Solar Assistance.** Identify and publicize information about financial mechanisms for private solar installations and provide over-the-counter permitting for solar installations meeting specified standards, which may include maximum size (in kV) of units that can be so Draft.

- **Policy RC-8-j: Alternative Fuel Network.** Support the development of a network of integrated charging and alternate fuel station for both public and private vehicles, and if feasible, open up municipal stations to the public as part of network development.

- **Policy RC-8-k: Energy Efficiency Education.** Provide long-term and on-going education of homeowners and businesses as to the value of energy efficiency and the need to upgrade existing structures on the regular basis as technology improves and structures age.

- **Policy RC-11-a: Waste Reduction Strategies.** Maintain current targets for recycling and re- use of all types of waste material in the city and enhance waste and wastewater management practices to reduce natural resource consumption, including the following measures:

    - Continue to require recyclable material collection and storage areas in all residential development.

- Establish recycling collection and storage area standards for commercial and industrial facilities to size the recycling areas according to the anticipated types and amounts of recyclable material generated.
- Provide educational materials to residents on how and what to recycle and how to dispose of hazardous waste.
- Provide recycling canisters and collection in public areas where trash cans are also provided.
- Institute a program to evaluate major waste generators and identify recycling opportunities for their facilities and operations.
- Continue to partner with the California Integrated Waste Management Board on waste diversion and recycling programs and the CalMAX (California Materials Exchange) program.
- Evaluate the feasibility of a residential, restaurant, and institutional food waste segregation and recycling program, to reduce the amount of organic material sent to landfill and minimize the emissions generated by decomposing organic material.
- Evaluate the feasibility of "carbon footprinting" for the City's wastewater treatment facilities, biomass and composting operations, solid waste collection and recycling programs.
- Expand yard waste collection to divert compostable waste from landfills.
- Study the feasibility and cost-benefit analysis of a municipal composting program to collect and compost food and yard waste, including institutional food and yard waste, using the resulting compost matter for City park and median maintenance.

- **Policy RC-11-b: Zero Waste Strategy.** Create a strategic and operations plan for fulfilling the City Council resolution committing the City to a Zero Waste goal.

SETTING

This section provides the current SJVAPCD attainment status, climate and air quality, ambient air quality monitoring results, and GHG emissions inventory.

ATTAINMENT STATUS

The proposed project is located in Madera County, and is within the jurisdiction of the SJVAPCD. The SJVAPCD is responsible for air quality regulation within the eight-county San Joaquin Valley region.

Both the State of California and the federal government have established health-based AAQS for six criteria air pollutants: CO, O_3, NO_2, SO_2, Pb, $PM_{2.5}$, PM_{10}. The SJVAB is designated as non-attainment for O_3 and $PM_{2.5}$ for federal standards and non-attainment 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 USEPA to identify regions as "attainment" or "nonattainment" depending on whether the regions meet the requirements stated in the applicable 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.

Table E provides a summary of the attainment status for the SJVAB with respect to NAAQS and CAAQS.

Table E: San Joaquin Valley Air Basin Air Quality Attainment Status

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

Source: California Air Resources Board and USEPA (2023).
USEPA = United States Environmental Protection Agency
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

EXISTING CLIMATE AND AIR QUALITY

Air quality is a function of both local climate and local sources of air pollution. 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, terrain, and for photochemical pollutants, sunshine.

The project site is located within the SJVAB and is under the jurisdiction of the SJVAPCD. 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 SJVAB is comprised of approximately 25,000 square miles and covers of eight counties including Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus and Tulare, and the western portion of Kern. The SJVAB is defined by the Sierra Nevada 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 basically 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.

Although marine air generally flows into the basin from the San Joaquin River Delta, the Coast Range hinders wind access into the SJVAB from the west, the Tehachapi Mountains prevent southerly passage of air flow, and the high Sierra Nevada range is a significant barrier to the east. These topographic features result in weak air flow which becomes blocked vertically by high barometric pressure over the SJVAB. As a result, the SJVAB is highly susceptible to pollutant accumulation over time. Most of the surrounding mountains are above the normal height of summer inversion layers (1,500 to 3,000 feet).

Local climatological effects, including wind speed and direction, temperature, inversion layers, precipitation and fog, can exacerbate the air quality in the SJVAB. Wind speed and direction play an important role in dispersion and transport of air pollutants. Wind at the surface and aloft can disperse pollution by mixing vertically and by transporting it to other locations. For example, in the summer, wind usually originates at the north end of the SJVAB and flows in a south-southeasterly direction through the SJVAB, through Tehachapi pass, into the Southeast Desert Air Basin. In the winter, wind direction is reversed and flows in a north-northwesterly direction. In addition to the seasonal wind flow, a sea breeze flows into SJVAB during the day and a land breeze flowing out of the SJVAB at night. The diversified wind flow enhances the pollutant transport capability within SJVAB.

The annual average temperature varies throughout the SJVAB, ranging from the low 40s to high 90s, measured in degrees Fahrenheit (°F). With a more pronounced valley influence, inland areas show more variability in annual minimum and maximum temperatures than coastal areas. The climatological station closest to the site is the Madera-28261 Avenue 14. The monthly average maximum temperature recorded at this station from January 1948 to June 2016 ranged from 54.6°F in January to 98.3°F in July, with an annual average maximum of 76.5°F. The monthly average minimum temperature recorded at this station ranged from 35.3°F in December to 65.7°F in July,

with an annual average minimum of 50.4°F.[36] These levels are still representative of the project area. January and December are typically the coldest months and July is typically the warmest month in this area of the SJVAB.

The majority of annual rainfall in the SJVAB occurs between November and March. Summer rainfall is minimal and is generally limited to scattered thundershowers in desert regions and slightly heavier showers near the lower portion of the SJVAB and along the Sierra Nevada mountains to the east. Average monthly rainfall during that period varied from 0.01 inches in July and August to 2.09 inches in January, with an annual total of 10.89 inches.[37] Patterns in monthly and yearly rainfall totals are predictable due to the recognizable differences in seasons within the valley.

The vertical dispersion of air pollutants in the SJVAB is limited by the presence of persistent temperature inversions. Because of cooling of the atmosphere, air temperature usually decreases with altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Inversions can exist at the surface, or at any height above the ground. The height of the base of the inversion is known as the "mixing height." This is the level within which pollutants can mix vertically. Air above and below the inversion base does not mix because of the differences in air density. Semi-permanent systems of high barometric pressure fronts frequently establish themselves over the SJVAB, preventing low pressure systems that might otherwise bring rain and winds that clean the air.

Inversion layers are significant in determining ozone formation, and CO and PM_{10} concentrations. Ozone and its precursors will mix and react to produce higher ozone concentrations under an inversion. The inversion will also simultaneously trap and hold directly emitted pollutants such as carbon monoxide. PM_{10} is both directly emitted and created in the atmosphere as a chemical reaction. Concentration levels of pollutants are directly related to inversion layers due to the limitation of mixing space.

Surface or radiation inversions are formed when the ground surface becomes cooler than the air above it during the night. The earth's surface goes through a radiative process on clear nights, where heat energy is transferred from the ground to a cooler night sky. As the earth's surface cools during the evening hours, the air directly above it also cools, while air higher up remains relatively warm. The inversion is destroyed when heat from the sun warms the ground, which in turn heats the lower layers of air; this heating stimulates the ground level air to float up through the inversion layer.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. Periods of low inversions and low wind speeds are conditions favorable to high concentrations of CO and PM_{10}. In the winter, the greatest pollution problems are CO and NO_x because of extremely low inversions and air stagnation during the night and early morning hours. In

36 Western Regional Climate Center. n.d. Fresno Yosemite International Airport (043257), Period of Record Monthly Climate Summary. Website: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3257 (accessed June 2025).

37 Ibid.

the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and oxides of nitrogen to form photochemical smog.

AIR QUALITY MONITORING RESULTS

Air quality monitoring stations are located throughout the nation and are maintained by the local air pollution control district and State air quality regulating agencies. The SJVAPCD, together with the CARB, maintains ambient air quality monitoring stations in the SJVAB. The air quality monitoring stations closest to the Specific Plan Area are located at 908 North Villa Avenue in Clovis and 3727 North First Street in Fresno, California.

Pollutant monitoring results for years 2021 to 2023 at the nearby ambient air quality monitoring stations, shown in Table F, indicate that air quality in the area has generally been moderate. As indicated in the monitoring results, the State PM_{10} standard was exceeded 111 times in 2021, 73 times in 2022 and an unknown number of times in 2023. In addition, the federal PM_{10} standard was exceeded an unknown number of times in 2021 but not exceeded in 2022 or 2023. The federal $PM_{2.5}$ standard had 22 exceedances in 2021, four exceedances in 2022, and no exceedances in 2023. The State 1-hour ozone standard was exceeded six times in 2021, no times in 2022, and an unknown number of times in 2023. The State 8-hour ozone standard was exceeded 37 times in 2021, 26 times in 2022, and 21 times in 2023. The federal 8-hour standard was exceeded 34 times in 2021, 23 times in 2022, and 21 times in 2023. The CO, NO_2, and SO_2 standards were not exceeded in this area during the 3-year period.

GREENHOUSE GAS EMISSIONS INVENTORY

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, and California GHG emission inventories.

Global Emissions

Worldwide emissions of GHGs in 2022 were 36.8 billion tons of CO_2e.[38]

United States Emissions

In 2022, the year for which the most recent data are available, the United States emitted about 6,343 million metric tons (MMT) CO_2e. Overall, emissions in 2022 increased by 1 percent relative to the 2021 total GHG emissions.

[38] International Energy Agency. CO_2 Emissions in 2022. Website: https://www.iea.org/reports/co2-emissions-in-2022 (accessed July 2025).

Table F: Ambient Air Quality at Nearby Monitoring Stations

Pollutant	Standard	2021	2022	2023
Carbon Monoxide (CO)				
Maximum 1-hour concentration (ppm)		1.3	1.3	1.5
Number of days exceeded:	State: > 20 ppm	ND	ND	ND
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		1.2	1.1	1.3
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Ozone (O_3)				
Maximum 1-hour concentration (ppm)		0.123	0.109	0.102
Number of days exceeded:	State: > 0.09 ppm	6	0	ND
Maximum 8-hour concentration (ppm)		0.100	0.084	0.083
Number of days exceeded:	State: > 0.07 ppm	37	26	21
	Federal: > 0.07 ppm	34	23	21
Coarse Particulates (PM_{10})				
Maximum 24-hour concentration (µg/m³)		208.8	127.0	104.0
Number of days exceeded:	State: > 50 µg/m³	111	73	ND
	Federal: > 150 µg/m³	ND	0	0
Annual arithmetic average concentration (µg/m³)		41.7	32.6	43.2
Exceeded for the year:	State: > 20 µg/m³	Yes	Yes	ND
	Federal: > 50 µg/m³	No	No	ND
Fine Particulates ($PM_{2.5}$)				
Maximum 24-hour concentration (µg/m³)		104.6	41.9	34.7
Number of days exceeded:	Federal: > 35 µg/m³	22	4	0
Annual arithmetic average concentration (µg/m³)		12.3	10.2	15.1
Exceeded for the year:	State: > 12 µg/m³	Yes	No	No
	Federal[1] > 12 µg/m³[a]	Yes	No	No
Nitrogen Dioxide (NO_2)				
Maximum 1-hour concentration (ppm)		0.049	0.051	0.048
Number of days exceeded:	State: > 0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.006	0.008	0.008
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO_2)[1]				
Maximum 1-hour concentration (ppm)		0.008	0.003	0.005
Number of days exceeded:	State: > 0.25 ppm	0	0	0
Maximum 24-hour concentration (ppm)		0	0	0
Number of days exceeded:	State: > 0.04 ppm	0.003	0.001	0.002
	Federal: > 0.14 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.00043	0.00042	0.0004
Exceeded for the year:	Federal: > 0.030 ppm	No	No	No

Sources: CARB (2025) and USEPA (2025).
Note: On February 7, 2024, the federal annual PM2.5 standard was revised from 12.0 µg/m3 to 9.0 µg/m3. However, since the data presented in Table E is through 2022, it uses the 12.0 µg/m³ standard that was in effect through 2022.
[1] Data for SO_2 was taken from 3727 North First Street, Fresno monitoring station. All other data was taken from 908 North Villa Avenue, Clovis Monitoring Station.
µg/m³ = micrograms per cubic meter
CARB = California Air Resources Board
USEPA = United States Environmental Protection Agency
ND = No data. There were insufficient (or no) data to determine the value.
ppm = parts per million

This increase in total GHG emissions was driven by fossil fuel combustion due primarily to increased energy use, due inpart to the continued rebound in economic activity after the height of the COVID-19 pandemic. However, GHG emissions in 2022 were 17 percent below those of 2005 levels. Of the five major sectors—residential and commercial, agricultural, industry, transportation, and electricity generation—transportation accounted for the highest amount of GHG emissions in 2022 (approximately 28 percent), with electricity generation second at 25 percent and emissions from industry third at 23 percent.[39]

State of California Emissions

The State emitted approximately 371.1 MMT CO2e emissions in 2022, which was 9.9 MMT CO_2e lower than 2021 levels.[40] CARB estimates that transportation was the source of approximately 37.7 percent of the State's GHG emissions in 2022. The next largest sources included industrial sources at approximately 19.6 percent and electricity generation at 16.1 percent. The remaining sources of GHG emissions were commercial and residential activities at 10.6 percent, agriculture at 8.0 percent, high GWP at 5.7 percent, and waste at 2.2 percent.[41]

City of Fresno Emissions

The city of Fresno baseline inventory year was 2010. The City has prepared an updated inventory for 2016 that accounts for regulations adopted to that point in time. Therefore, 2016 provides the best available baseline for the GHG Plan and can be compared directly with State progress to date and targets. Table G shows the baseline inventory.

Table G: City of Fresno GHG Emissions by Sector for 2016

Sector	2016 (MT CO_2e)	Percent of Total Emissions
Motor Vehicles	1,520,052	52
Residential Energy	479,371	16
Commercial Energy	524,838	18
Fugitive Emissions	270,130	9
Solid Waste	119,167	4
Industrial Energy	10,055	<1
Agricultural Energy	20	<1
Total	**2,923,633**	**100**

Source: International Council for Local Environmental Initiatives (ICLEI) Local Governments for Sustainability 2016 Inventory Update (City of Fresno 2018).

As shown in Table G, motor vehicles were the largest source at approximately 52 percent of the city's GHG emissions in 2016, followed by commercial and residential energy at 18 and 16 percent,

39 USEPA. 2023. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks (accessed July 2025).

40 CARB. 2022b. *California Greenhouse Gas Emissions for 2000 to 2022, Trends of Emissions and Other Indicators Report*. Website: https://ww2.arb.ca.gov/sites/default/files/2024-09/nc-2000_2022_ghg_inventory_trends.pdf (accessed June 2025).

41 Ibid.

respectively. The remaining sources included fugitive emissions at 9 percent and solid waste sources at 4 percent. Agriculture and industrial energy emissions each account for less than 1 percent of total emissions.

METHODOLOGY

The methodology used to estimate air quality and GHG impacts is described below.

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 2022.1 computer program was used to calculate emissions from on-site construction equipment and emissions from worker and vehicle trips to the site. Buildout of the proposed project would occur over a 20-year period beginning with the adoption of the plan in 2026. However, the exact construction schedule is not yet known. Therefore, to provide a conservative estimate of the emissions that could occur due to construction activities, this analysis assumes that future construction will begin in January 2026 and be operational in 2046. Construction phases are expected to occur consecutively; therefore, this analysis evaluates construction emissions as a whole and not per phase. Site preparation would include removal of rocks, debris, and vegetation from the Specific Plan Area. Grading operation is anticipated to be balanced on-site and would not require import or export of materials, which was included in CalEEMod. In addition, this analysis assumes that the proposed project would be constructed using Tier 2 construction equipment, which was included in CalEEMod. Other precise details of construction activities are unknown at this time; therefore, default assumptions (e.g., construction worker and truck trips and construction fleet activities) from CalEEMod were used. CalEEMod output sheets are included in Appendix A.

OPERATIONAL EMISSIONS

The air quality analysis includes estimating emissions associated with long-term operation of the proposed project. Consistent with the SJVAPCD guidance for estimating emissions associated with land use development projects, the CalEEMod computer program was used to calculate the long-term operational emissions associated with the project.

As discussed previously in the Project Location and Description section, the proposed project would implement land use changes that would maintain and enhance the character-defining elements associated with the Tower District while allowing for future growth. The proposed project analysis was conducted using land use codes *Single Family Housing, Apartments Low Rise, Industrial Park, and Strip Mall*. Trip generation rates used in CalEEMod for the proposed project were based on the project's trip generation described in Trip Generation and VMT analysis[42], which identifies that the proposed project would generate approximately 39,055 average daily traffic (ADT), which was

[42] LSA. 2025. *Tower District Specific Plan Update Trip Generation and Vehicle Miles Traveled Analysis Memorandum*. July

included in CalEEMod. It is not yet known whether the proposed project would utilize natural gas; therefore, this analysis conservatively assumes that natural gas will be included as part of the project operations. In addition, this analysis assumes the proposed project would be operational in 2046, which is 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 included in Appendix A.

The majority of the area within the Specific Plan Area is already developed and not expected to change. However, implementation of the proposed project would allow for future development projects in the Tower District Specific Plan Area that would result in potential increase in planned residential uses and a decrease in commercial land uses when compared to the Approved Specific Plan. Therefore, long-term operational emissions associated with the land uses under the Approved Specific Plan were also evaluated in CalEEMod. The existing land use designations in the District include a mix of residential, commercial, public institutions, and pockets of industrial uses. Therefore, this analysis was conducted using land use codes *Single Family Housing, Apartments Low Rise, Industrial Park, and Strip Mall*. Trip generation rates used in CalEEMod were based on the trip generation described in Trip Generation and VMT analysis [43], which identifies that the buildout of the Approved Specific Plan would generate approximately 36,054 ADT, which was included in CalEEMod. This analysis assumes an operational year of 2025 to represent existing emissions associated with the land uses that are currently existing and operational in the planning area, which is 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 included in Appendix B.

ENERGY

The analysis of electricity/natural gas usage is based on the CalEEMod modeling conducted by LSA, which quantifies energy use for project operations. Fuel consumption (diesel fuel and gasoline) from vehicle trips during operation was estimated for the opening year (2046) of the proposed project based on trip estimates from the CalEEMod model and fuel efficiencies from the CARB EMission FACtor Model (EMFAC2025) model. Estimates of fuel consumption (diesel fuel and gasoline) from construction trucks and construction worker vehicles were based on trip estimates from the CalEEMod model and fuel efficiencies from the CARB EMFAC2025 model. Detailed energy calculations are included in Appendix C.

Electricity/natural gas usage use associated with the Approved Specific Plan was also evaluated and is based on the CalEEMod modeling. Fuel consumption from vehicle trips during operation was estimated for the opening year (2025) of the Approved Specific Plan based on trip estimates from the CalEEMod model and fuel efficiencies from the EMFAC2025 model. Detailed energy calculations are included in Appendix D.

The analysis focuses on the four sources of energy that are relevant to the proposed project: electricity, natural gas, the equipment fuel necessary for project construction, and vehicle fuel

[43] LSA. 2025. *Tower District Specific Plan Update Trip Generation and Vehicle Miles Traveled Analysis Memorandum*. July.

necessary for project operations. For the purposes of this analysis, the amount of electricity, natural gas, construction fuel, and fuel use from operations are quantified and compared to that consumed in Fresno County. The electricity and natural gas use of the proposed project is analyzed as a whole on an annual basis. Electricity and natural gas use was estimated using default energy intensities by land use type in CalEEMod.

GREENHOUSE GAS ANALYSIS

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 vehicular 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

AIR QUALITY

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

- 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 applicable federal or State ambient air quality standards;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) affecting a substantial number of people.

Regional Emissions Thresholds

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 are regarded as conservative and would overstate an individual project's contribution to health risks. The related impacts are discussed further in the Impacts Analysis section. The SJVAPCD regional emission thresholds for construction and operation are shown in Table H.

Table H: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Threshold (tons per year)					
	CO	NO_X	ROG	SO_X	PM_{10}	$PM_{2.5}$
Construction	100	10	10	27	15	15
Operations	100	10	10	27	15	15

Source: *Guidance for Assessing and Mitigating Air Quality Impacts* (SJVAPCD 2015a).
CO = carbon monoxide
NO_X = nitrogen 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 gas
SJVAPCD = San Joaquin Valley Air Pollution Control District
SO_X = sulfur oxides

Local Microscale Concentration Standards

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the SJVAB, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 parts per million (ppm)
- California State 8-hour CO standard of 9 ppm

Health Risk Thresholds

Both the State and federal governments have established health-based AAQS for seven air pollutants. For other air pollutants without defined significance standards, the definition of substantial pollutant concentrations varies. For TACs, "substantial" is taken to mean that the individual health risk exceeds a threshold considered to be a prudent risk management level.

The following limits for maximum individual cancer risk (MICR) and noncancer acute and chronic Hazard Index (HI) from project emissions of TACs are considered appropriate for use in determining the health risk for projects in the SJVAB:

- **MICR:** MICR is the estimated probability of a maximally exposed individual (MEI) contracting cancer as a result of exposure to TACs over a period of 30 years for adults and 9 years for children in residential locations, 350 days per year. The SJVAPCD's *Update to the District's Risk Management Policy to Address the California Office of Environmental Health Hazard Assessment (OEHHA) Revised Risk Assessment Guidance Document* states that emissions of TACs are considered significant if an HRA shows an increased risk of greater than 20 in 1 million.

- **Chronic HI:** Chronic HI is the ratio of the estimated long-term level of exposure to a TAC for a potential MEI to its chronic reference exposure level. The chronic HI calculations include multi-pathway consideration when applicable. The project would be considered significant if the cumulative increase in total chronic HI for any target organ system would exceed 1 at any receptor location.

- **Acute HI:** Acute HI is the ratio of the estimated maximum 1-hour concentration of a TAC for a potential MEI to its acute reference exposure level. The project would be considered significant if the cumulative increase in total acute HI for any target organ system would exceed 1 at any receptor location.

ENERGY

The thresholds for aesthetics impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed project may be deemed to have a significant impact with respect to aesthetics if it would:

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

- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

GREENHOUSE GAS THRESHOLDS

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.

Section 15064.4 of the *State CEQA Guidelines* states that "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify GHG emissions or to rely on a qualitative analysis or performance-based standards. In making a determination as to the significance of potential impacts, the lead agency then considers the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Neither the City of Fresno, nor the 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.

Therefore, this analysis evaluates the GHG emissions based on the project's consistency with State GHG reduction goals. The proposed project is evaluated for consistency with the 2022 Scoping Plan, including the proposed project's compliance with relevant Scoping Plan measures, as well as the FCOG 2022 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). It should be noted that the Scoping Plan is consistent with the AB 1279 GHG reduction targets of achieving carbon neutrality by 2045, and reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Therefore, consistency with the CARB's 2022 Scoping Plan would also demonstrate consistency with the carbon neutrality requirements encapsulated by AB 1279.

IMPACTS ANALYSIS

This section identifies the air quality and GHG emissions impacts associated with implementation of the proposed project.

AIR QUALITY IMPACTS

The following section presents a discussion of the impacts related to air quality that could result from implementation of the proposed project. Air pollutant emissions associated with the project would occur over the short term from construction activities and over the long term from operational activities associated with the proposed project.

Consistency with Applicable Air Quality Plans

The proposed project was assessed to determine if the impacts from implementation of the Specific Plan Update would conflict with or obstruct the implementation of the applicable attainment plan. As defined above, the proposed project is the buildout facilitated by implementation of the Specific Plan Update. Buildout is predicted to occur at growth rates consistent with those used by the SJVAPCD to develop plans for all nonattainment pollutants in the SJVAB. The growth rate used for this analysis results in buildout by the year 2046.

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 2022 Plan for the 2015 8-hour ozone standard in December 2022 to satisfy Clean Air Act requirements and ensure attainment of the 70 parts per billion (ppb) 8-hour ozone standard.

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.[44] 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 $\mu g/m^3$.[45]

CEQA requires that certain proposed projects be analyzed for consistency with the applicable air quality plan as it relates to a region's non-attainment status. An air quality plan describes air pollution control strategies to be implemented in a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. As discussed above, the SJVAB is designated as non-attainment for O_3 and $PM_{2.5}$ for federal standards and non-attainment for O_3, PM_{10}, and $PM_{2.5}$ for State standards.

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44 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 2025).

45 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 2025).

Therefore, to bring the SJVAB into attainment, the SJVAPCD adopted the 2022 Plan for the 2015 8-Hour Ozone Standard in December 2022 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.

To assure the SJVAB's continued attainment of the USEPA PM_{10} standard, the SJVAPCD adopted the 2007 PM_{10} Maintenance Plan in September 2007. SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions) is designed to reduce PM_{10} emissions generated by human activity. The SJVAPCD adopted the 2018 plan for the 1997, 2006, and 2012 $PM_{2.5}$ standards to address the USEPA federal annual $PM_{2.5}$ standard of 12 $\mu g/m^3$, established in 2012.

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 SJVAPCD thresholds of significance. In addition, as discussed below and shown in Table J, long-term operational emissions associated with the proposed project, including area, energy, and mobile source emissions, would also not exceed SJVAPCD established significance thresholds. Therefore, impacts related to the proposed project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

In addition, reductions anticipated from existing regulations and adopted control measures will result in emissions continuing to decline. The proposed project would allow for implementation of the City's sustainability efforts that reduce motor vehicle use and energy consumption. This is accomplished with more compact development achieved by increasing development density and by providing a land use pattern and transportation infrastructure more supportive of public transportation, walking, and bicycling. The City also participates in regional planning efforts and works closely with Fresno COG in developing Regional Transportation Plans and capital improvement plans and capital improvement plans. These efforts contribute to the attainment strategy for the SJVAB.

Furthermore, the SJVAPCD has adopted rules and regulations specifically designed to reduce the impacts of growth on the applicable air quality plans. For example, Rule 9510, Indirect Source Review, was adopted to provide emission reductions needed by the SJVAPCD to demonstrate attainment of the federal PM_{10} standard and contribute to reductions that assist in attaining federal ozone standards. Rule 9510 also contributes toward attainment of State standards for these pollutants. The SJVAPCD's Regulation VIII, Fugitive PM_{10} Prohibitions, requires controls for sources of particulate matter necessary for attaining the federal PM_{10} standards and achieving progress toward attaining the State PM_{10} standards. Rule 2201, New and Modified Stationary Source Review, requires new and modified stationary/industrial sources provide emission controls and offsets that ensure that stationary sources decline over time and do not impact the applicable air quality plans. Development associated with the proposed project would comply with these rules and regulations providing additional support for the conclusion that it would not interfere or obstruct with the application of the attainment plans.

Therefore, the proposed project's potential air quality impacts from construction and operation would not exceed any applicable threshold of significance and would not conflict with or obstruct the applicable clean air plan.

Criteria Pollutant Analysis

The SJVAB is currently designated as nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. In addition, the SJVAB is in nonattainment for the PM_{10} standard. The SJVAB's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of an ambient air quality standard. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

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. Although these thresholds are intended for use on individual development projects, no other quantitative plan level threshold has been adopted. Implementation of the proposed project would provide for the development of numerous individual development projects that would be subject to the project level thresholds at the time they are proposed. Large individual projects are likely to exceed the thresholds during project construction and operation.

The following analysis assesses the potential impacts associated with the buildout of the proposed project that would result in air pollutant emissions from short-term construction activities and long-term project operation.

Construction Emissions

During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by demolition, grading, paving, building, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly emitted particulate matter ($PM_{2.5}$ and PM_{10}), and TACs such as diesel exhaust particulate matter.

Construction activities associated with implementation of the proposed project would include site preparation, grading, paving, and building activities. 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 implemented 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, ROG, 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 idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using CalEEMod and are summarized in Table I. Appendix A provides CalEEMod output sheets.

Table I: Project Construction Emissions (tons per year)

Project Construction Year	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2026	0.1	5.1	3.7	<0.1	1.1	0.6
2027	0.2	6.1	4.4	<0.1	0.8	0.4
2028	0.7	5.1	7.5	<0.1	1.3	0.4
2029	1.0	4.1	9.1	<0.1	1.9	0.5
2030	0.9	4.0	8.6	<0.1	1.9	0.5
2031	0.9	3.9	8.2	<0.1	1.9	0.5
2032	0.8	3.8	7.9	<0.1	1.9	0.5
2033	0.8	3.8	7.9	<0.1	1.9	0.5
2034	0.8	3.8	7.2	<0.1	1.9	0.5
2035	0.7	3.7	7.0	<0.1	1.9	0.5
2036	0.7	3.7	6.8	<0.1	1.9	0.5
2037	0.7	3.6	6.6	<0.1	1.9	0.5
2038	0.6	3.6	6.4	<0.1	1.9	0.5
2039	0.6	3.6	6.3	<0.1	1.9	0.5
2040	0.6	3.5	6.1	<0.1	1.9	0.5
2041	0.6	3.5	6.1	<0.1	1.9	0.5
2042	0.5	3.5	6.0	<0.1	1.9	0.5
2043	0.5	3.2	5.2	<0.1	1.6	0.4
2044	2.8	1.2	1.2	<0.1	0.2	0.1
2045	8.5	0.2	0.8	<0.1	0.3	0.1
2046	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum Annual Construction Emissions	**8.5**	**6.1**	**9.1**	**<0.1**	**1.9**	**0.5**
SJVAPCD Thresholds	10.0	10.0	100.0	27.0	15.0	15.0
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (July 2025).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

As shown in Table I, construction emissions associated with the proposed project would not exceed the SJVAPCD's thresholds for ROG, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions. In addition, 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. With the implementation of Regulation VIII measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, 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 out-door storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.

The buildout associated with the proposed project would result in numerous potentially individual development projects. Information regarding specific development projects, soil conditions, and the location of sensitive receptors in relation to the various projects would be needed in order to determine localized impacts associated with construction activity. However, overall estimates based on annual rates of construction activity required to reach buildout provides a reasonable method for determining an annual contribution rate for construction emissions. Emissions from construction activities are expected to decline over time as new cleaner equipment replaces older higher emitting equipment.

Furthermore, SJVAPCD and State regulations have been created to reduce construction emissions. SJVAPCD Regulation VIII includes requirements to control fugitive dust emissions during construction activities and requires commercial projects over 5 acres and residential projects over 10 acres to file a Dust Control Plan. If measures included in the Dust Control Plan prove inadequate to control fugitive dust, construction contractors must implement additional controls or cease dust generating construction activities. In addition, projects smaller than the Dust Control Plan size thresholds must still comply with most other Regulation VIII requirements. The SJVAPCD indicates that the control measures in Regulation VIII are required by regulation for all construction sites to reduce fugitive dust emissions. These control measures are intended to reduce the amount of PM_{10} emissions during the construction period. Implementation of the fugitive dust control measures outlined above, would ensure that the proposed project complies with Regulation VIII and further reduces the short-term construction period air quality impacts. The GAMAQI also lists additional measures that may be required because of sheer project size or proximity of the project to sensitive receptors. The additional measures are referred to as "enhanced control measures" in the GAMAQI. These enhanced control measures have been added as amendments to Regulation VIII, so they are no longer considered mitigation measures that could be imposed on very large or sensitive projects, but standard control measures required for rule compliance.

The CARB has also adopted regulations for new off-road diesel engines and equipment that result in cleaner equipment being placed in service as older, higher emitting equipment is retired. The CARB

also adopted the in-use off-road diesel vehicle regulation requiring NO_x and PM_{10} emission reductions from equipment and vehicles currently in operation. CARB also requires retrofits of existing equipment to reduce particulate emissions that will help reduce emissions from older equipment. Regulations are normally implemented over a 5 to 10 year period at which time a new round of regulations are proposed if they are still needed to attain the air quality standards. The CARB has a long history of tightening regulations as technology advances increase the feasibility of additional controls. Large individual projects that exceed the SJVAPCD project thresholds will be required to include feasible mitigation measures that reduce the significant impact. The measures could include additional onsite controls or off-site mitigation fees that reduce emissions to less than significant levels.

Furthermore, Rule 9510 – Indirect Source Review requires projects to reduce exhaust related construction emissions by 20 percent for NO_x and by 50 percent for PM_{10}; however, significance for these emissions is based on whether projects exceed the SJVAPCD annual quantitative thresholds.

Therefore, construction associated with implementation of the proposed project would result in a less than significant impact related to a cumulative considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard. Compliance with SJVAPCD regulatory measures would further reduce construction emissions to a less than significant level.

Operational Air Quality Impacts

Long-term air pollutant emission impacts associated with the proposed project are those related to mobile sources (e.g., vehicle trips), energy sources (e.g., natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment). As described in the Greenhouse Gas Impacts Section, future development projects would need to implement Mitigation Measure GHG-1, which would require projects to incorporate project design measures consistent with the 2022 Scoping Plan GHG requirements, including limiting the use of natural gas in new development. However, in order to provide a more conservative analysis, this analysis assumes that natural gas will be included as part of the project operations.

Mobile source emissions include ROG and NO_X emissions that contribute to the formation of O_3. Additionally, 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.

The proposed project would implement land use changes that would maintain and enhance the character-defining elements associated with the Tower District while allowing for future growth. The proposed project would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on Blackstone Avenue and Shields Avenue. This would allow for ground level commercial uses fronting public streets and sidewalks, while residential uses would be located above or behind. This would continue to promote the walkability of the District while allowing for greater residential development. Additionally, medium low density residential uses would be allowed at Terrace Gardens, Porter Tract, and Wilson Island to allow for the development of slightly denser housing where building mass can transition in scale to the adjacent single-family homes.

Long-term operational emissions associated with the proposed project and the estimated emissions associated with the Approved Specific Plan were calculated using CalEEMod. Table J provides the estimated operational emissions. Appendices A and B provide CalEEMod output sheets.

Table J: Project Operational Emissions

Emission Type	Pollutant Emissions (Tons per Year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Approved Specific Plan – Existing Emissions						
Mobile	22.6	19.3	131.8	0.3	24.2	6.3
Area	17.1	1.2	35.1	0.1	3.0	2.9
Energy	0.2	3.7	1.9	<0.1	0.3	0.3
Total Existing Emissions	**39.8**	**24.2**	**168.8**	**0.4**	**27.5**	**9.5**
Proposed Project Emissions						
Mobile	12.2	11.2	78.5	0.2	25.5	6.6
Area	17.9	0.2	17.6	<0.1	<0.1	<0.1
Energy	0.3	4.4	2.3	<0.1	0.4	0.4
Total Proposed Project Emissions	**30.4**	**15.8**	**98.4**	**0.2**	**25.9**	**7.0**
Total Net Emissions (Proposed Project – Existing Emissions)	**-9.4**	**-8.4**	**-70.4**	**-0.2**	**-1.6**	**-2.5**
SJVAPCD Thresholds	**10.0**	**10.0**	**100.0**	**27.0**	**15.0**	**15.0**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (July 2025).
Note: Some values may not appear to add correctly due to rounding.
CO = carbon monoxide
NO_x = nitrogen 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 gas
SJVAPCD = San Joaquin Valley Air Pollution Control District
SO_x = sulfur oxides

The results shown in Table J indicate the total net operational emissions would not exceed the significance criteria for annual ROG, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ emissions. The air quality impacts associated with future operation of individual projects that may occur with implementation of the proposed project would be required to prepare project specific technical assessments evaluating operational-related air quality impacts to further ensure that operational-related emissions are reduced to the maximum extent feasible for projects that require environmental evaluation under CEQA.

Since the 1991 Specific Plan, there has been a shift to mandate clean energy (such as solar, hydroelectric, wind, and nuclear sources), resulting in reductions in air quality emissions in addition to trip reduction and energy conservation measures. The State and the SJVAPCD would continue to adopt additional regulations on most sources of emissions to be implemented during the proposed project buildout period and result in much greater reductions than is predicted with the adopted regulations. In addition, expanded use of renewable fuels, zero emission vehicles, and replacing combustion sources with electrically powered alternatives will also result in reductions in criteria pollutant emissions. Various policies of the General Plan and the proposed Specific Plan Update would promote complete streets, mixed-use and transit-oriented neighborhoods, and increased

capacity for alternative transportation modes, which would help further reduce air pollutant emissions. Implementation of the proposed project would also be required to adhere to all federal, State, and local requirements for energy efficiency, including current Title 24 and CALGreen Code standards which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would reduce energy usage.

Therefore, operation of the proposed project would result in a less-than-significant impact related to a cumulatively considerable net increase of any criteria pollutant for which the proposed project region is in nonattainment under an applicable federal or State ambient air quality standard.

Long-Term Microscale (CO Hot Spot) Analysis

Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the vicinity of the proposed project site. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients).

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Ambient CO levels monitored at the Clovis air quality monitoring stations, the closest stations to the project site monitoring CO, showed a highest recorded 1-hour concentration of 1.5 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 1.3 ppm (the State standard is 9 ppm) during the past 3 years (see Table F). The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

As described in the Trip Generation and VMT analysis, buildout of the proposed project would result in a less-than-significant VMT impact.[46] As such, the proposed project would not generate VMT to the degree that the plan would conflict the City's locally adopted VMT target and will be consistent with the Governor's Office of Land Use and Climate Innovation (LCI) established targets included in SB 743 (Steinberg, 2013). Additionally, the proposed project would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas. Therefore, implementation of the proposed project would promote alternative

[46] LSA. 2025. *Tower District Specific Plan Update Trip Generation and Vehicle Miles Traveled Analysis Memorandum*. July

forms of transportation (e.g., walking and cycling) and would further reduce VMT. Therefore, given the extremely low level of CO concentrations in the project area and the lack of traffic impacts at any intersections, project-related vehicles are not expected to result in CO concentrations exceeding the State or federal CO standards. No CO hot spots would occur, and the project would not result in any project-related impacts on CO concentrations.

Health Risk on Nearby Sensitive Receptors

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

Localized Health Risk

Proposed projects associated with the implementation of the proposed project would emit TACs that would require review under SJVAPCD rules and regulations or review under CEQA, especially if located near sensitive receptors. Projects with sensitive receptors proposed near localized sources of TAC emissions (e.g., residents to be located near major roadways or stationary sources) could expose new sensitive populations to TACs and other air pollutants. According to the CARB and SJVAPCD, exposure to elevated levels of TACs contribute to elevated health risks. The ARB recommends that buffers should be included to avoid exposure of sensitive receptors to TAC sources. Risk levels drop dramatically beyond 500 feet from a source due to dispersion of emissions with distance.

It should be noted that the amount of emissions from a project does not necessarily correspond to the concentrations of air pollutants. A dispersion modeling analysis would be necessary to calculate health risk from project implementation. However, since it is not possible to translate the amount of an unknown future specific project's emissions to a particular concentration, it is not possible to calculate the risk factor for a particular health effect at the time of this analysis.

Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Particulate matter can also lead to a variety of health effects in people. These include premature death of people with heart or lung disease, heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms.

Regional emissions of criteria pollutants contribute to these known health effects. The SJVAPCD is the primary agency responsible for ensuring the health and welfare of sensitive individuals and that they are not exposed to elevated concentrations of criteria pollutants in the Basin. The SJVAPCD's numeric regional mass daily emission thresholds are based in part on Section 180 (e) of the CAA. The numeric regional mass daily emission thresholds are intended to provide a means of consistency in significance determination within the environmental review process. To achieve the health-based standards established by the USEPA, the SJVAPCD prepares an AQMP that details regional programs to attain the ambient air quality standards.

Notwithstanding, simply exceeding the SJVAPCD's numeric regional mass daily emission thresholds does not constitute a particular health impact to an individual nearby. The reason for this is that the mass daily emission thresholds are in tons/year emitted into the air, whereas health effects are

determined based on the concentration of a pollutant in the air at a particular location (e.g., ppm by volume of air or µg/$m^3$of air). CAAQS and NAAQS were developed to protect the most susceptible population groups from adverse health effects and were established in terms of ppm or µg/m^3 for the applicable emissions.

As shown in Table I and Table J, project emissions would not be expected to exceed the most stringent applicable NAAQS or CAAQS for NO_X, $PM_{2.5}$, and PM_{10}. It should be noted that the AAQS are developed and represent levels at which the most susceptible persons (children and the elderly) are protected. In other words, the AAQS are purposefully set low to protect children, the elderly, and those with existing respiratory problems. Furthermore, air quality trends for emissions of NO_X, VOCs, and O_3 (which is a byproduct of NO_X and VOCs) have been trending downward within the SJVAB even as development has increased over the last several years. Therefore, implementation of the Specific Plan Update is not expected to result in any Basin-wide increase in health effects.

As noted in the Brief of Amicus Curiae by the SJVAPCD (2015), the SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts. (See page 4 of the SJVAPCD Brief of Amicus Curiae.)

Additionally, the SJVAPCD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. The SJVAPD indicates that it would take a large amount of additional emissions to result in a modeled increase in ambient O_3 levels over the entire region. As such, it is not currently possible to accurately quantify O_3-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with a regional scope) due to photochemistry and regional model limitations.

Therefore, the project's emissions are not sufficiently high to use a regional modeling program to correlate health effects on a Basin-wide level. Further, the SJVAPCD acknowledges the same:

> "…the Air District is simply not equipped to analyze and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area…even for projects with relatively high levels of emissions of criteria pollutant precursor emissions." (See page 8 of the SJVAPCD Brief of Amicus Curiae.)

The SJVAPCD Brief of Amicus Curiae are incorporated by reference into this environmental documentation for this project. Current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences.

Since the results shown in Table J indicate the proposed project's operational emissions would not exceed significance criteria, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the proposed project region is in nonattainment under an applicable federal or State ambient air quality standard. The State and federal ambient air quality standards were established to protect public health. Therefore, since the significance criteria was set at a level to protect public health, the proposed project would not generate operational emissions that would result in impacts to public health.

Toxic Air Contaminant Emissions

Emissions of TACs would be controlled through permits issued by SJVAPCD and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits. Since it is not possible to determine the amount of TAC concentrations at the time of this analysis, it is not possible to calculate the risks for a particular health effect within the Specific Plan Area. The proposed project is a programmatic project and until specific future projects are proposed, the associated TAC emissions cannot be determined or modeled at this time. Future development projects subject to environmental review under CEQA would be required to analyze potential TAC emissions and include mitigation as appropriate.

During construction and operation, the proposed project could result in emissions of several TACs that could potentially impact nearby sensitive receptors. The SJVAPCD has defined health risk significance thresholds. These thresholds are represented as a cancer risk to the public and a non-cancer hazard from exposures to TACs. Cancer risk represents the probability (in terms of risk per million individuals) that an individual would contract cancer resulting from exposure to TACs continuously over a period of several years. The SJVAPCD's latest threshold of significance for TAC emissions is an increase in cancer risk for the MEI of 20 in a million (formerly 10 in a million). Exposures to TACs can also result in both short-term (acute) or long-term (chronic) non-cancer health impacts. Such impacts could include illnesses related to reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects.

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. Industrial land uses, such as chemical processing facilities, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities, have the potential to be substantial stationary sources that would require a permit from the SJVAPCD for emissions of TACs. The proposed project would allow for commercial and light industrial land uses that may include dry cleaners and gasoline-dispensing facilities. Emissions of TACs would be controlled through permits issued by the SJVAPCD and would be subject to further study and an HRA prior to the issuance of any necessary air quality permits. In addition to stationary/area sources of TACs, commercial and industrial operations could generate a substantial amount of diesel particulate matter emissions from off-road equipment use and truck idling. Land use projects are required to comply with AB 2588 and CARB standards for diesel engines. As stated above, until specific future projects are proposed, the associated emissions cannot be determined or modeled at this time. However, mitigation has been identified so that future projects would be subject to environmental review under CEQA and would be required to analyze potential emissions and include mitigation as appropriate.

Siting of Sensitive Receptors. Because placement of sensitive land uses falls outside CARB's jurisdiction, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources.

CARB's recommendations for the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. Respiratory and cardiovascular problems including asthma, lung cancer, and premature death have been associated with living near major roadways and freeways.[47] Children who live near major roadways and freeways have been found to have higher asthma rates and reduced lung function.[48] There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic: DPM from trucks and benzene and butadiene from passenger vehicles. Exposure to DPM accounts for more than 80 percent of the total carcinogenic risk in the Basin.[49] It has been found that outdoor concentrations are highest near the roadway and decrease with increasing distance downwind of the source.[50] CARB recommends avoiding siting new sensitive land uses within 500 feet of urban roads with more than 100,000 vehicles per day or rural roads with more than 50,000 vehicles per day.[51]

Table K shows a summary of the other CARB recommendations for siting new sensitive land uses within the *vicinity* of air pollutant sources. Recommendations in the table are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Table K: CARB Recommendations for Siting New Sensitive Land Uses

Source/Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within 1 mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting new sensitive land uses immediately downwind of ports in the most heavily affected zones. Consult local air districts or CARB on the status of pending analyses of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.

47 Balmes, J.R., Earnest, G., Katz, P.P., Yelin, E.E., Eisner, M.D., Chen, H., Trupin, L., Lurmann, F., and Blanc, P.D. 2009. *Exposure to traffic: Lung function and health status of adults with asthma. The Journal of Allergy and Clinical Immunology*, 123(3):626–631.

48 CARB. 2013. Overview of the Children's Health Study. Website: https://ww2.arb.ca.gov/resources/documents/childrens-health-study (accessed July 2025).

49 South Coast Air Quality Management District (SCAQMD). 2008. *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES III).* September.

50 Zhu, Y., Hinds, W.C., Kim, S., Shen, S., and Sioutas, C. 2002. *Study of ultrafine particles near a major roadway with heavy-duty diesel traffic.* Atmospheric Environment, 36(27):4323-4335.

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

Table K: CARB Recommendations for Siting New Sensitive Land Uses

Source/Category	Advisory Recommendations
Dry Cleaners using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

Source: CARB (2005).
CARB = California Air Resources Board

New sensitive receptors, such as proposed residential uses, could be sited within the buffer distances (shown in Table K) to TAC sources associated with areas designated for commercial and industrial operations. CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. However, as with other laws and regulations enforced by other agencies that protect public health and safety, the City, as the lead agency, has authority other than CEQA to require measures to protect public health and safety.

Future development associated with the implementation of the proposed project would be required to comply with AB 2588, and CARB standards for diesel engines. While existing City policies and regulations are intended to minimize impacts associated with sensitive receptors, Mitigation Measures AIR-1a through AIR-1c, would require that future project developments implement these policies and regulations to ensure that the intended environmental protections are achieved.

Mitigation Measure AIR-1a Prior to future discretionary approval for projects that require environmental evaluation under CEQA, development project applicants shall prepare and submit to the Director of the Planning and Development Department, or designee, a technical health risk assessment (HRA) evaluating potential project construction phase-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (SJVAPCD) methodology for assessing construction impacts. If construction-related air pollutants are determined to have the potential to exceed the SJVAPCD adopted threshold of significance, project applicants for new development projects shall be required to incorporate mitigation measures into construction plans to reduce air pollutant emissions during construction activities. Mitigation measures can include, but are not limited to:

- Maintain construction equipment and provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [CCR Title 13, Sections 2449 and 2449.1] to SJVAPCD; and

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated. Documentation of a certified mechanic's inspection and determinations shall be maintained by the Construction Manager and available for City inspection upon reasonable request.

The identified measures shall be included as part of the Project Conditions of Approval. If the recommendations of the HRA are insufficient to reduce impacts to levels at or below SJVAPCD's threshold of 20 in one million, such development with significant cancer risk (i.e., that exceed that threshold) shall be prohibited.

Mitigation Measure AIR-1b

Prior to future discretionary approval for projects that require environmental evaluation under CEQA, the City of Fresno shall evaluate new development proposals for new industrial or warehousing land uses that: (1) have the potential to generate 100 or more truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and (2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use. Such projects shall submit a HRA to the City Department of Development and Resource Management. The HRA shall be prepared in accordance with policies and procedures of the most current State Office of Environmental Health Hazard Assessment (OEHHA) and the SJVAPCD. If the HRA shows that the incremental health risks exceed their respective thresholds, as established by the SJVAPCD at the time a project is considered, the Applicant will be required to identify and demonstrate that Best Available Control Technologies for Toxics (T-BACTs), including appropriate enforcement mechanisms to reduce risks to an acceptable level. T-BACTs may include, but are not limited to:

- Restrict idling on site by shutting equipment off when not in use or reducing idling time to 3 minutes as enforced by an identified compliance officer within the construction crew. Idling restrictions shall be enforced by highly visible posting at the site entry, posting at other on-site locations frequented by truck drivers, conspicuous inclusion in employee training and guidance material and owner, operator or tenant direct action as required;

- Electrify warehousing docks to reduce diesel particulate matter; Require use of newer equipment and/or vehicles;
- Provide charging infrastructure for: electric forklifts, electric yard trucks, local drayage trucks, last mile delivery trucks, electric and fuel-cell heavy duty trucks; and/or
- Install solar panels, zero-emission backup electricity generators, and energy storage to minimize emissions associated with electricity generation at the project site.

T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

Mitigation Measure AIR-1c Locate sensitive land uses (e.g., residences, schools, and daycare centers) to avoid incompatibilities with recommended buffer distances identified in the most current version of the CARB *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Handbook). Sensitive land uses that are within the recommended buffer distances listed in the CARB Handbook shall provide enhanced filtration units or submit an HRA to the City. If the HRA shows that the project would exceed the applicable SJVAPCD thresholds, mitigation measures capable of reducing potential impacts to an acceptable level must be identified and approved by the City.

Compliance with Mitigation Measure AIR-1a would require future development projects in the Specific Plan Area to evaluate and mitigate potential TAC exposure related to project-level construction activity. Mitigation Measure AIR-1b would ensure that mobile sources of TACs not covered under SJVAPCD permits are considered during subsequent project-level environmental review. Mitigation Measure AIR-1b would require the preparation of project-specific technical health risk assessments for certain discretionary large industrial or warehousing uses to evaluate operational-related health risk impacts to further ensure that operational-related emissions are reduced to a less than significant level. However, information regarding operational characteristics of future specific development projects and the associated emissions cannot be determined at the time of this analysis; therefore, cumulative growth within the City could result in potential TAC health could cumulatively contribute to elevated health risks in the city. Mitigation Measure AIR-1c identifies the use of the discretionary review process for residential and other sensitive land uses near freeways to impose site plan and design features aimed at minimizing exposure to environmental pollution.

Implementation of Mitigation Measures AIR-1a, AIR-1b, and AIR-1c would serve to ensure that the due to the implementation of the proposed project are assessed to determine if they would expose sensitive receptors to potentially significant impacts from TAC emissions. Therefore, compliance with Mitigation Measures AIR-1a, AIR-1b, and AIR-1c would ensure the potential TAC health risk impact associated with the implementation of the proposed project would be less than significant.

Odors

The city of Fresno has many sources with the potential to generate odors including wastewater treatment facilities, landfills, transfer stations, recycling centers, manufacturing plants, food processors, painting operations, and rendering plants. Based on review of odor complaint history, very few of these facilities experience substantial odor complaints over the last three years. Implementation of the proposed project could result in the odor sources being located near sensitive receptors and could result in significant impacts on sensitive receptors. These potential odor impacts on new sensitive receptors could be significant. When potential odor impacts on these new sensitive receptors occur, the SJVAPCD has authority under Rule 4102 to require the owner of the odor-generating source to take actions that would reduce impacts to less than significant.

In addition, potential impacts from odor sources would be mitigated through compliance with General Plan Policy PU-9-d and by enforcement actions by agencies with regulatory authority over odors. General Plan Policy PU-9-d would ensure that waste and recycling facilities are properly located. Potential odor impacts from waste and recycling facilities is one of the primary factors considered in the location decision and are regulated by the State of California through CalRecycle and the Local Enforcement Agency delegated by the State. The SJVAPCD addresses odor issues through Rule 4102 – Nuisance. Facilities creating nuisance odors generating public complaints can result in SJVAPCD enforcement action. Individual development projects are required to determine if odors would be a potentially significant impact as part of CEQA review. The approved General Plan does not identify specific projects that are likely to result in an increase in odors. However, projects meeting the screening criteria are likely to be proposed in the Plan Area. In addition, projects containing sensitive receptors are likely to be proposed near existing odor sources. Projects proposing new receptors within screening level distances will reduce the impact to less than significant through procedures provided by Rule 4102. Proposal of a new source within the screening distance would require the applicant to demonstrate that the proposed facility includes odor controls within its design and through implementation of odor management practices to reduce odors to less than significant. Therefore, impacts would be less than significant. No mitigation would be required.

ENERGY IMPACTS

The following discussion describes the potential impacts related to energy that could result from continued of the proposed project.

Energy Consumption

The proposed project would increase the demand for energy through day-to-day operations and fuel consumption associated with project construction. This section discusses energy use resulting from implementation of the proposed project and evaluates whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency.

Construction Energy Use

Project construction would require energy resources primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. The proposed project would require site preparation, grading, infrastructure, surface paving activities during construction, and architectural coatings (painting). The construction-related equipment would not be powered by natural gas, and no natural gas demand is anticipated during construction.

Transportation energy represents the largest energy use during construction and would occur from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction worker vehicles that would use petroleum fuels (e.g., diesel fuel and/or gasoline). Therefore, the analysis of energy use during construction focuses on fuel consumption. Construction trucks and vendor trucks hauling materials to and from the project area would be anticipated to use diesel fuel, whereas construction workers traveling to and from the project area would be anticipated to use gasoline-powered vehicles. Fuel consumption from transportation uses depends on the type and number of trips, VMT, the fuel efficiency of the vehicles, and the travel mode.

Estimates of fuel consumption (diesel fuel and gasoline) from construction equipment, construction trucks, and construction worker vehicles were based on default construction equipment assumptions and trip estimates from CalEEMod and fuel efficiencies from EMFAC2025.

Fuel consumption estimates are presented in Table L. CalEEMod output sheets are included in Appendix A, and detailed energy calculations are included in Appendix C.

Table L: Construction Energy Estimates

Energy Type	Energy Consumption
Total Fuel Consumption	
Gasoline (total gallons)	5,915,156.5
Diesel Fuel (total gallons)	3,880,685.8
Fuel Consumption Per Year	
Gasoline (gallons per year)[1]	295,757.8
Diesel Fuel (gallons per year)[1]	194,034.3

Source: Compiled by LSA (July 2025).

[1] Gallons per year is the total gallons of fuel averaged over the 7-year planning period.

As indicated in Table L, construction associated with the buildout of the proposed project would consume approximately 5,915,156.5 gallons of gasoline and approximately 3,880,685.8 gallons of diesel fuel during construction. As discussed above, the proposed project would be constructed over an approximately 20-year planning period; therefore, when averaged over 20 years, the proposed project would consume approximately 295,757.8 gallons of gasoline per year and 194,034.3 gallons of diesel fuel per year during construction. Based on fuel consumption obtained from EMFAC2025, approximately 308.6 million gallons of gasoline and approximately 150.7 million gallons of diesel will be consumed from vehicle trips in Fresno County in 2026. Therefore, construction of the proposed project would increase the annual construction generated fuel use in Fresno County by approximately 0.10 percent for gasoline fuel usage and by 0.13 percent for diesel fuel usage. As such, project construction would have a negligible effect on local and regional energy supplies.

Construction of the proposed project would be relatively similar to the Approved Specific Plan. There would, however, be slightly more construction under the proposed project compared to the Approved Specific Plan. However, impacts related to energy use during construction would be temporary and relatively small in comparison to Fresno County's overall use of the State's available energy resources. No unusual project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the State. In addition, construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. The project would not cause or result in the need for additional energy facilities or an additional or expanded delivery system.

Since the preparation of the 1991 Specific Plan, there has been a shift to mandate clean energy (such as solar, hydroelectric, wind, and nuclear sources), resulting in trip reduction and energy conservation measures. The State and the SJVAPCD would continue to adopt additional regulations on most sources of emissions to be implemented during the proposed project buildout period and result in much greater reductions than is predicted with the adopted regulations. In addition, impacts from construction activities are expected to decline over time as new cleaner equipment replaces older, higher emitting equipment. For example, the CARB has adopted regulations for new off-road diesel engines and equipment that result in cleaner equipment being placed in service as

older, higher emitting equipment is retired. For these reasons, fuel consumption during construction would not be inefficient, wasteful, or unnecessary.

Operational Energy Use

Operational energy use is typically associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with implementation of the proposed project.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use, or "plug-in" energy use, can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.). Annual natural gas and electricity usage estimates associated with project operation were obtained from CalEEMod.

In addition, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. Based on the trip generation prepared by LSA, buildout of the proposed project would typically generate approximately 19,094 average daily trips. The amount of operational fuel use was estimated using CARB's EMFAC2025 model, which provided projections for typical daily fuel usage in Fresno County for the operational year of 2046 (buildout).

Operational energy use associated with the land uses under the Approved Specific Plan were also evaluated. The existing land use designations in the District include a mix of residential, commercial, public institutions, and pockets of industrial uses. Therefore, this analysis was conducted using land use codes *Single Family Housing, Apartments Low Rise, Industrial Park, and Strip Mall*. Trip generation rates used in CalEEMod were based on the trip generation described in the Trip Generation and VMT analysis [52], which identifies that the buildout of the Approved Specific Plan would generate approximately 36,054 ADT. This analysis assumes an operational year of 2025.

Table M provides the estimated annual operational energy usage. Detailed energy calculations are included in Appendices C and D.

Table M: Operational Energy Estimates

Energy Type	Total Energy Consumption
Approved Specific Plan – Existing Uses	
Electricity Consumption (kWh/year)	23,270,338.0
Natural Gas Consumption (therms/year)	788,902.0
Gasoline (gallons/year)	2,928,387.7
Diesel Fuel (gallons/year)	408,362.3
Proposed Project Energy Consumption	
Electricity Consumption (kWh/year)	27,130,562.0
Natural Gas Consumption (therms/year)	948,733.0
Gasoline (gallons/year)	2,761,322.8

[52] LSA. 2025. *Tower District Specific Plan Update Trip Generation and Vehicle Miles Traveled Analysis Memorandum*. July.

Diesel Fuel (gallons/year)	469,243.3
Net Energy Consumption (Proposed Project – Existing Uses)	
Electricity Consumption (kWh/year)	3,860,224.0
Natural Gas Consumption (therms/year)	159,831.0
Gasoline (gallons/year)	-167,065.7
Diesel Fuel (gallons/year)	60,881.0

Source: Compiled by LSA (July 2025).
kWh = kilowatt hours

As shown in Table M, the estimated potential net increase in electricity demand associated with the operation of the proposed project is 3,860,224.0 kWh per year. Total electricity consumption in Fresno County in 2022 was 8,384,408,687 kWh. Therefore, operation of the proposed project would increase the annual electricity consumption in Fresno County by less than 0.1 percent.

As shown in Table M, the estimated potential net increase in natural gas demand associated with the proposed project is 159,831.0 therms per year. Total natural gas consumption in Fresno County in 2022 was 319,435,645 therms. Therefore, operation of the proposed project would negligibly increase the annual natural gas consumption in Fresno County by less than 0.1 percent.

Although there would be an overall increase in energy demand associated with the proposed project, the CALGreen Code (California Code of Regulations, Title 24, Part 11), sets performance standards for nonresidential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, materials conservation, planning and design, and overall environmental quality. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Standards Code that became effective on January 1, 2023.

The proposed project would be required to adhere to all federal, State, and local requirements for energy efficiency, including current Title 24 and CALGreen Code standards which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would reduce energy usage. In addition, proposed new development would be constructed using energy efficient modern building materials and construction practices, and the proposed project also would use new modern appliances and equipment, in accordance with the Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608). Title 24 includes requirements for reductions in energy consumption and increasing energy efficiency. Title 24 now has solar installation requirements for all newly constructed non-residential projects. The California Building Code (CBC) now mandates incorporation of solar photovoltaic systems and battery storage in many non-residential projects, or for non-qualifying projects installation of solar-ready roofs and systems. These requirements serve to offset electricity demand and the project will be required to adhere to applicable Title 24 requirements. The proposed project's compliance with Title 24 will be confirmed prior to issuance of building permits. The expected energy consumption during construction and operation of the proposed project would be consistent with typical usage rates for residential and non-residential uses. Therefore, electrical and natural gas demand associated with project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

In addition, the proposed project would also result in energy usage associated with gasoline and diesel fuel consumed by project-related vehicle trips. As shown in Table M, fuel use associated with the vehicle trips generated by the proposed project would result in a net reduction of approximately 167,065.7 gallons of gasoline and a net increase of approximately 60,881.0 gallons of diesel fuel per year. Based on fuel consumption obtained from EMFAC2025, approximately 79.8 million gallons of diesel and approximately 55.6 million gallons of gasoline would be consumed from vehicle trips in Fresno County in 2046 (buildout year). Vehicle trips associated with the proposed project would not increase the annual gasoline use in Fresno County. The truck trips associated with the proposed project would increase the annual fuel use in Fresno County by approximately 0.1 percent for diesel fuel usage. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses, such that it would result in a wasteful, inefficient, or unnecessary consumption of energy resources.

As described in the Project Location and Description section, the proposed project would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on Blackstone Avenue and Shields Avenue. This would allow for ground level commercial uses fronting public streets and sidewalks, while residential uses would be located above or behind. This would continue to promote the walkability of the District while allowing for greater residential development. Additionally, medium low density residential uses would be allowed at Terrace Gardens, Porter Tract, and Wilson Island to allow for the development of slightly denser housing where building mass can transition in scale to the adjacent single-family homes. As such, implementation of the proposed project would promote alternative forms of transportation (e.g., walking and cycling) and would reduce vehicle miles traveled. Overall, the nearby transit facilities and proposed improvements to the pedestrian network would support public transit use and walking and bicycling.

Impacts associated with future operation of individual projects that may occur with implementation of the proposed project would be required to prepare project specific technical assessments evaluating operational-related energy impacts to further ensure that operational-related energy consumption would be reduced to the maximum extent feasible for projects that require environmental evaluation under CEQA. The State and the SJVAPCD would continue to adopt additional regulations on most sources of emissions to be implemented during the proposed project buildout period and result in much greater reductions than is predicted with the adopted regulations. In addition, expanded use of renewable fuels, zero emission vehicles, and replacing combustion sources with electrically powered alternatives will also result in reductions in energy consumption.

For these reasons, implementation of the proposed project would not result in a substantial increase in energy and fuel-related uses, such that it would result in a wasteful, inefficient, or unnecessary consumption of energy resources.

Conflict with Renewable Energy or Energy Efficiency Plans

In 2002, the Legislature passed SB 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the Integrated Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system

to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for ZEVs and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The most recently adopted report includes the *2023 Integrated Energy Policy Report*[53] and the *2024 Integrated Energy Policy Report Update.*[54] The City of Fresno relies on the State integrated energy plan and does not have its own local plan to address renewable energy or energy efficiency. As indicated above, energy usage associated with construction of the proposed project would be temporary in nature and would be relatively small in comparison to the overall use in the county. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the overall use in Fresno County, and the State's available energy resources. Therefore, energy impacts at the regional level would be negligible. Because California's energy conservation planning actions are conducted at a regional level, and because the proposed Project's total impact on regional energy supplies would be minor, the proposed project would not conflict with or obstruct California's energy conservation plans as described in the CEC's Integrated Energy Policy Report. Additionally, as demonstrated above, the proposed project would not result in the inefficient, wasteful, and unnecessary consumption of energy.

In addition, implementation of the proposed project aims to promote mixed-use development and encourage alternative modes of transportation to reduce vehicle trip lengths and reliance on the automobile, which in turn, would reduce the transportation energy demand in the planning area. Implementation of the proposed project also encourages development of housing near employment and transportation, which would lead to a potential decrease in VMT. Continued implementation of the proposed project would also promote land use patterns that would improve walking and bicycling facilities to be more prominent, comfortable, and safe throughout the City.

Future projects facilitated by implementation of the proposed project would be required to comply with federal, State, and local regulations aimed at reducing energy consumption. In addition, the approved General Plan includes several objectives and policies aimed at reducing energy consumption specifically within the Specific Plan Area. These objectives and policies have been developed in accordance with federal and State energy regulations, such as the California Energy Code Building Energy Efficiency Standards (Title 24, Part 6), the CALGreen Code (Title 24, Part 11), and SB 743, which are also aimed at reducing energy consumption. Therefore, the proposed project would be consistent with applicable plans related to renewable energy and energy efficiency, and no mitigation would be required. Potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant.

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53 CEC. 2023a. *2023 Integrated Energy Policy Report*. California Energy Commission. Docket Number: 23-IEPR-01.

54 CEC. 2024. *2024 Integrated Energy Policy Report Update*. California Energy Commission. Docket Number: 24-IEPR-01.

GREENHOUSE GAS IMPACTS

This section describes the potential GHG impacts associated with implementation of the proposed project.

Generation of Greenhouse Gas Emissions

This section describes the proposed project's construction- and operation-related GHG emissions and contribution to global climate change.

Short-Term Greenhouse Gas Emissions

Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Neither the city nor the SJVAPCD have addressed GHG emission thresholds for construction. However, lead agencies are required to quantify and disclose GHG emissions that would occur during construction. Construction GHG emissions were amortized over the life of the project (assumed to be 30 years) and added to the operational emissions. Buildout of the proposed project would occur over a 20-year period beginning with the adoption of the Specific Plan Update in 2026. Using CalEEMod, it is estimated that construction of the proposed project would generate a total of 34,876.0 metric tons of CO_2e. When annualized over the life of the project, amortized construction emissions would be approximately 1,162.5 metric tons of CO_2e per year.

Long-Term Greenhouse Gas Emissions

Long-term GHG emissions are typically generated from mobile sources (e.g., vehicle and truck trips), 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.

The proposed project would implement land use changes that would maintain and enhance the character-defining elements associated with the Tower District while allowing for future growth. The majority of the area within the Specific Plan is already developed and not expected to change. However, implementation of the proposed project would allow for future development projects in

the Specific Plan Area that would result in potential increase in planned residential uses and a decrease in commercial land uses when compared to the existing land uses.

Long-term operational emissions associated with the proposed project and the Approved Specific Plan were evaluated using CalEEMod. Table N shows the estimated operational emissions associated with the proposed project and the Approved Specific Plan.

Table N: Operational Greenhouse Gas Emissions

Emissions Category	Operational Emissions (Metric Tons per Year)				
	CO_2	CH_4	N_2O	CO_2e	Percentage of Total
Approved Specific Plan – Existing Emissions					
Mobile Sources	26,875.0	1.6	1.6	27,427.0	75
Area Sources	1,354.9	2.1	<0.1	1,408.3	4
Energy Sources	6,338.2	0.7	0.1	6,371.1	18
Water Sources	135.6	6.4	0.2	340.8	<1
Waste Sources	224.0	22.4	0.0	783.6	2
Total Existing Emissions				**36,330.8**	**100.0**
Proposed Project Emissions					
Mobile Sources	21,897.0	0.8	1.2	22,273.0	71
Area Sources	47.0	<0.1	<0.1	47.1	<1
Energy Sources	7,543.2	0.9	0.1	7,582.0	24
Water Sources	156.2	7.4	0.2	393.0	1
Waste Sources	270.2	27.0	0.0	945.5	3
Total Proposed Project Emissions				**31,240.6**	**100.0**
Amortized Construction Emissions				1,162.5	-
Total Proposed Project Operational Emissions				**32,403.1**	
Total Net Annual Emissions				**-3,927.7**	-

Source: Compiled by LSA (July 2025).
Note = Some values may not appear to add correctly due to rounding.
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
N_2O = nitrous oxide

As shown in Table N, the implementation of the proposed project would result in a net reduction of approximately 3,927.7 metric tons of CO_2e per year when compared to the emissions associated with the Approved Specific Plan. As discussed above, the majority of the area within the Specific Plan is already developed and not expected to change. However, the proposed project includes proposed land use changes which would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on Blackstone Avenue and Shields Avenue. As such, implementation of the proposed project would allow for future development projects in the Specific Plan Area that would result in potential increase in planned residential uses and a decrease in commercial land uses when compared to the Approved Specific Plan. Additionally, policies included in the Specific Plan would reduce vehicle miles traveled by increasing amenities in the Specific Plan Area, as well as by promoting mixed use development and increasing opportunities for multi-modal transit.

Impacts associated with future operation of individual projects that may occur with implementation of the proposed project would be required to prepare project specific technical assessments evaluating operational-related GHG impacts to further reduce emissions to the maximum extent

feasible for projects that require environmental evaluation under CEQA. Each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

While buildout of the proposed project would not result in an increase in emissions when compared to the buildout of the Approved Specific Plan, individual project emissions that could occur from implementation of the proposed project will contribute to global climate change. 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, nor the SJVAPCD has developed or adopted numeric GHG significance thresholds. In the absence of any City or SJVAPCD specific guidelines or thresholds, the proposed project and any future development that could occur from implementation of the proposed project would need to be analyzed for consistency with State goals for the purpose of reducing GHG emissions.

The Bay Area Air District's *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans* (Justification Report)[55] established guidance on how individual projects would be consistent with California's long-term climate goals and provides substantial evidence in supporting the use of Bay Area Air District thresholds for projects throughout California, because the thresholds are designed to meet the State's established GHG reduction goals, including the 2022 Scoping Plan goals. According to the Bay Area Air District Justification Report,[56] a project would have a less than significant impact related to consistency with the 2022 Scoping Plan if the proposed project achieves a reduction in project-generated VMT below the regional average consistent with the current version of the 2022 Scoping Plan (currently 15 percent) or meets a locally adopted SB 743 VMT target, reflecting the recommendations provided in the OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*.[57] Additionally, a project must not include natural gas appliances or natural gas plumbing and should not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the *State CEQA Guidelines*. It should be noted that natural gas is currently used in the Tower District, but the use of natural gas would not be expanded under the proposed project. Lastly, a project must achieve compliance with off-street EV requirements in the most recently adopted version of CALGreen Tier 2. If a project is designed and built to incorporate these design elements related to VMT, natural gas, energy, and EVs, then it would contribute its portion of what is necessary to achieve California's long-term climate goals and an agency reviewing the project under CEQA can conclude that the project would be consistent with the State's 2022 Scoping Plan.

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55 Bay Area Air Quality Management District (Bay Area Air District). 2022. *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*. April. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en (accessed June 2025).

56 Ibid.

57 Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. April.

Information regarding operational characteristics of future development projects envisioned under the Specific Plan Update and the associated emissions cannot be determined at the time of this analysis; therefore, implementation of the proposed project could result in potential significant impacts related to GHG. Mitigation Measure GHG-1 would require the preparation of a project-specific assessment of potential GHG impacts and implementation of feasible mitigation measures to reduce GHG emissions. As described above, neither the City or SJVAPCD have developed GHG thresholds. Future project developments can implement the design elements related to VMT, natural gas, energy, and EVs to demonstrate their "fair share" of emissions to meet California's long-term climate goals and an agency reviewing the project under CEQA can conclude that the project would be consistent with the State's 2022 Scoping Plan. As such, mitigation Measure GHG-1 would require individual projects to implement these design elements, as necessary, to further ensure that operational-related emissions are reduced to a less than significant level. Therefore, implementation of Mitigation GHG-1 would ensure impacts associated with the continued implementation of the proposed project would be less than significant.

Mitigation Measure GHG-1

Prior to discretionary approval by the City of Fresno (City) for development projects subject to California Environmental Quality Act (CEQA) review (i.e., nonexempt projects), Project applicants shall prepare and submit a technical assessment evaluating potential project-related greenhouse gas (GHG) impacts to the City for review and approval. The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (SJVAPCD) methodology. While neither the City nor the SJVAPCD currently have established threshold of significance for evaluating the GHG emissions impact of a proposed project, if either the City or the SJVAPCD develop GHG thresholds in the future (i.e. CEQA qualified Greenhouse Gas Reduction Plan/Climate Action Plan or SJVAPCD project-specific GHG thresholds), the evaluation of project-related GHG emissions shall demonstrate consistency with those thresholds of significance. In the absence of project-specific GHG thresholds established by the City or SJVAPCD, projects shall demonstrate compliance with the 2022 Scoping Plan GHG requirements, consistent with State GHG emissions reduction and equity prioritization goals, by implementing the following design elements, where feasible:

- Projects shall not include natural gas appliances or natural gas plumbing.
- Projects shall achieve a reduction in project-generated VMT below the regional average consistent with the current version of the 2022 Scoping Plan (currently 15 percent) or meets the City's locally adopted target reduction (13 percent reduction).
- Projects shall not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis

required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the *State CEQA Guidelines.*

- Projects must achieve compliance with EV requirements in the most recently adopted version of CALGreen Tier 2.

Should a proposed project exceed established thresholds of significance, the City shall require that the proposed project implement GHG emission reduction measures to reduce emissions below applicable thresholds or to a level commensurate with implementing the recommended project-design features outlined above. Such mitigation measures could include, but are not limited to, energy efficiency measures, water conservation and efficiency measures, solid waste measures, and transportation and motor vehicles measures. The identified measures shall be included as part of the conditions of approval.

Furthermore, since the 1991 Specific Plan, there has been a shift to mandate clean energy (such as solar, hydroelectric, wind, and nuclear sources), resulting in reductions in GHG emissions in addition to trip reduction and energy conservation measures. The State and the SJVAPCD would continue to adopt additional regulations on most sources of emissions to be implemented during the proposed project buildout period and result in much greater reductions than is predicted with the adopted regulations. In addition, expanded use of renewable fuels, zero emission vehicles, and replacing combustion sources with electrically powered alternatives will also result in reductions in GHG emissions. The proposed project would also be required to adhere to all federal, State, and local requirements for energy efficiency, including current Title 24 and CALGreen Code standards which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would reduce energy usage. The proposed project would also comply with the applicable policies from the General Plan aimed at reducing GHG emissions, including Policies RC-5-c, RC-5-d, and RC-5-e.

Since implementation of the proposed project would result in a net reduction of GHG emissions when compared to the Approved Specific Plan, the proposed project would not result in a significant impact. With implementation of Mitigation Measures GHG-1, impact associated with the continued implementation of the proposed project would remain to be less than significant. Therefore, with Mitigation Measures GHG-1, the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant effect on the environment and impacts would be less than significant.

Consistency with Greenhouse Gas Emissions Reduction Plans

This section includes analysis of the proposed project's consistency with State and local plans, policies, and regulations that have been adopted for the purpose of reducing GHGs. As discussed above, the SJVAPCD has adopted a CCAP, which includes suggested best performance standards for proposed development projects. However, the SJVAPCD's CCAP was adopted in 2009 and was prepared based on the State's 2020 GHG targets, which are now superseded by State policies (i.e., the 2022 California Green Building Standards Code) and the 2030 GHG targets, established in SB 32, as well as State goals for carbon neutrality, as included in Executive Orders and codified in AB 1279. Therefore, in this section, the proposed project is analyzed for consistency with the goals of EO B-30-15, SB 32, AB 197, and the 2022 Scoping Plan and the FCOG RTP.

2022 Scoping Plan. The following discussion evaluates the proposed project according to the goals of the 2022 Scoping Plan, EO B-30-15, SB 32, and AB 197.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[58] to reflect the 2030 target set by EO B-30-15 and codified by SB 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. 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. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

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.

58 CARB. 2017a. *California's 2017 Climate Change Scoping Plan*. November.

Appendix D of the 2022 Scoping Plan includes local action recommendations that align with the state's climate strategies[59]. Land use development projects that are consistent with these, either through on-site project design features or mitigation strategies, would support state-level measures to contain the growth of GHG emissions associated with the transportation system and built environment. The 2022 Scoping Plan categorizes the priority areas into Transportation Electrification, VMT Reduction, and Building Decarbonization and provides project attributes associated with each that are intended as a guide to help local jurisdictions qualitatively identify projects that are consistent with the state's climate goals. The following sections provide an analysis of the proposed project's consistency with the overarching, long-term GHG reduction goals from the Scoping Plan related to Transportation Electrification, VMT Reduction, and Building Decarbonization.

Energy Efficiency and Building Decarbonization. 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 comply with the CALGreen Code, regarding energy conservation and green building standards, which will ensure highly energy efficient development. Additionally, PG&E is the private utility that would supply the proposed project's electricity. In 2021, a total of 50 percent of PG&E's delivered electricity came from renewable sources, including solar, wind, geothermal, small hydroelectric, and various forms of bioenergy.[60] PG&E reached California's 2020 renewable energy goal in 2017 and is positioned to meet the State's 60 percent by 2030 renewable energy mandate set forth in SB 100. In addition, PG&E plans to continue to provide reliable service to its customers and upgrade its distribution systems as necessary to meet future demand, consistent with the State's renewable portfolio.

The elimination of natural gas in new development would help projects implement their "fair share" of GHG emission reductions necessary to achieve carbon neutrality by 2045. As such, if a project does utilize natural gas, a lead agency can conclude that it would not be consistent with achieving the 2045 neutrality goal and will have a cumulative considerable impact on climate change.[61] It is not yet known whether the proposed project would include natural gas. To be conservative, this analysis assumes that natural gas may be required. However, the proposed project would support development standards that increase electrification and building decarbonization for future land uses. The elimination of natural gas from the building sector is a key action identified by CARB to reduce statewide emissions. CARB provides a target year of 2035 to initiate decarbonizing of industrial processes with the understanding that the industrial sector is a more challenging GHG sector to electrify; however, decarbonizing new commercial and residential development is considered a feasible requirement for projects proposed now. With Mitigation Measure GHG-1, the

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59 CARB. 2022c. Appendix D Local Actions – Draft 2022 Scoping Plan. May. Website: https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp-appendix-d-local-actions_0.pdf (accessed July 2025).

60 Pacific Gas & Electric Company (PG&E). 2021. *Exploring Clean Energy Solutions*. Website: https://www.pge.com/en_US/about-pge /environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc_id= Vanity_cleanenergy (accessed June 2024).

61 Bay Area Air Quality Management District (Bay Area Air District). 2022. *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*. April.

proposed project would require future development to eliminate the use of natural appliances or natural gas plumbing. As technology continues to advance towards cleaner energy, future development projects would be able to reduce the use of natural gas and align with building decarbonization goals. Furthermore, the proposed project will be constructed with the latest Title 24 building design and will meet all required energy efficiency measures. Therefore, the proposed project would comply with applicable energy measures.

Additionally, and as noted above, the proposed project would comply with the CALGreen Code, which also includes a variety of different measures for water conservation and efficiency, including the reduction of wastewater and water use. Therefore, the proposed project would also promote the reduction of GHG emissions through water efficiency measures.

Transportation Electrification and VMT. The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. The proposed project would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas. This would continue to promote the walkability of the Tower District while allowing for greater residential development. Additionally, medium low density residential uses would be allowed at Terrace Gardens, Porter Tract, and Wilson Island to match the existing densities in these tracts. As such, implementation of the proposed project would promote alternative forms of transportation (e.g., walking and cycling) and would reduce vehicle miles traveled. Overall, the nearby transit facilities and proposed improvements to the pedestrian network would support public transit use and walking and bicycling. Furthermore, with Mitigation Measure GHG-1, development of the land uses under the proposed project would meet the mandatory EV charging requirements of the CALGreen Code (Part 11, Title 24, California Code of Regulations), which would promote the widespread use of EVs as well as provide the electrical infrastructure necessary during the development phase of a project that allows for future expansion of electrical EV facilities. As such, the proposed project would be aligned with the State's long-term EV adoption targets. Additionally, as described in the Trip Generation and VMT analysis, buildout of the proposed project would result in a less-than-significant VMT impact[62]. The VMT per capita for the proposed project was estimated to be 11.4, which is below the City's VMT per capita threshold of 14.0. As such, the proposed project would not generate VMT to the degree that the plan would conflict with the City's locally adopted VMT target and will be consistent with the LCI's established targets included in SB 743 (Steinberg, 2013).. Therefore, the proposed project would not conflict with the transportation and motor vehicle measures.

Summary. As demonstrated above, with Mitigation Measure GHG-1, the proposed project would not conflict with the plans and policies adopted for the purpose of reducing the emissions of greenhouse gases, including the CARB 2022 Scoping Plan, EO B-30-15, SB 32, and AB 1279.

Fresno Council of Governments' 2022 Regional Transportation Plan. The Fresno Council of Governments (FCOG) Regional Transportation Plan (RTP) reflects transportation planning for Fresno County through 2046. The vision, goals, and policies in the 2022 RTP are intended to serve as the foundation for both short and long-term planning and guide implementation activities. The core

62 LSA. 2025. *Tower District Specific Plan Update Trip Generation and Vehicle Miles Traveled Analysis Memorandum*. July

vision in the 2022 RTP is to create a region of diverse, safe, resilient, and accessible transportation options that improve the quality of life for all residents by fostering sustainability, equity, a vibrant economy, clean air, and healthy communities. The 2022 RTP contains transportation projects to help more efficiently distribute population, housing, and employment growth, and forecast development that is generally consistent with regional-level general plan data. The actions in the 2022 RTP address all transportation modes (highways, local streets and roads, mass transportation, rail, bicycle, aviation facilities and services) and consist of short- and long-term activities that address regional transportation needs. While the actions are organized by the five key policy areas, many of them are cross-cutting and support multiple goals and policies. Some actions are intended to support the Sustainable Communities Strategy and reduce greenhouse gas emissions directly, while others are focused on the RTP's broader goals. The 2022 RTP does not require that local General Plans, Specific Plans, or zoning be consistent with the 2022 RTP, but provides incentives for consistency for governments and developers.

The proposed project would not interfere with the FCOG's ability to achieve the region's GHG reductions. The proposed project includes proposed land use changes which would promote more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas. Although implementation of the proposed project could result in an increase in planned residential units, all land use changes would be consistent with the Fresno 6th Cycle Housing Element and would accommodate much needed housing within the City. The proposed project would result in 537 new dwelling units and a reduction in 18,000 square feet of retail/commercial spaces. Therefore, it is anticipated that implementation of the proposed project would not exceed growth assumptions in the 2022 RTP/SCS. Therefore, the proposed project would not interfere with Fresno Council of Government's ability to implement the regional strategies outlined in the 2022 RTP.

Summary. The proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in the 2022 RTP and would be consistent with applicable State 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 and impacts would be less than significant.

CONCLUSION

Based on the analysis presented above, construction and operation of the proposed project would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance. Compliance with SJVAPCD Regulation VIII will further reduce dust impacts. In addition, compliance with Rule 9510 would reduce operational emissions of NO_X and PM_{10} by 33.3 percent and 50 percent, respectively. With implementation of mitigation measures Air-1a through Air-1c, the proposed project would not be expected to produce significant emissions that would affect nearby sensitive receptors. The project would also not result in other emissions (such as those leading to odors) affecting a substantial number of people. In addition, the energy use resulting from implementation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency. As mentioned above, neither the City of Fresno nor the SJVAPCD has developed or adopted numeric significance thresholds. Therefore, this analysis evaluated the project based on consistency with State goals and concludes that with implementation of mitigation measure GHG-1 the project would not result in the emissions of substantial GHG emissions. Additionally, the project would not conflict with the State's GHG emissions reductions objectives embodied in EO B-30-15, AB 1279, SB 32, or AB 197. Therefore, the proposed project's incremental contribution to cumulative GHG emissions would not be cumulatively considerable.

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APPENDIX A

PROPOSED PROJECT CALEEMOD OUTPUT SHEETS

Tower District Specific Plan Update Custom Report

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3.37. Building Construction (2042) - Unmitigated

3.39. Building Construction (2043) - Unmitigated

3.41. Paving (2043) - Unmitigated

3.43. Paving (2044) - Unmitigated

3.45. Architectural Coating (2044) - Unmitigated

3.47. Architectural Coating (2045) - Unmitigated

3.49. Architectural Coating (2046) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Tower District Specific Plan Update
Construction Start Date	1/5/2026
Operational Year	2046
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	22.6
Location	Tower District, Fresno, CA, USA
County	Fresno
City	Fresno
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2462
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	45.0	Dwelling Unit	5.10	87,750	527,079	—	144	—

Apartments Low Rise	2,709	Dwelling Unit	39.2	2,871,540	0.00	—	8,669	—
Industrial Park	318	1000sqft	13.1	317,585	0.00	—	—	—
Strip Mall	563	1000sqft	12.9	563,376	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	65.3	48.9	85.3	0.06	1.36	13.9	14.6	1.23	3.96	4.98	—	20,803	20,803	0.58	1.37	21,275
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	65.3	48.9	72.5	0.06	1.36	13.9	14.6	1.23	3.96	4.98	—	19,362	19,362	0.69	1.42	19,803
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	46.6	33.3	49.6	0.04	0.93	9.80	10.3	0.84	2.80	3.52	—	13,859	13,859	0.42	0.95	14,167
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.51	6.09	9.05	0.01	0.17	1.79	1.89	0.15	0.51	0.64	—	2,295	2,295	0.07	0.16	2,345

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.14	39.9	28.9	0.05	1.12	7.76	8.88	1.02	3.96	4.98	—	5,402	5,402	0.22	0.05	5,422
2027	1.41	48.9	36.0	0.06	1.36	3.70	5.06	1.23	1.45	2.68	—	6,714	6,714	0.27	0.06	6,739
2028	8.74	48.9	85.3	0.06	1.36	13.9	14.6	1.23	3.31	4.03	—	20,803	20,803	0.58	1.37	21,275
2029	8.20	30.3	80.7	0.06	0.77	13.9	14.6	0.72	3.31	4.03	—	20,419	20,419	0.53	1.33	20,872
2030	7.79	30.0	76.2	0.06	0.77	13.9	14.6	0.72	3.31	4.03	—	20,041	20,041	0.50	0.93	20,370
2031	7.34	29.3	72.6	0.06	0.77	13.9	14.6	0.68	3.31	3.99	—	19,678	19,678	0.45	0.90	19,990
2032	6.93	29.0	69.3	0.06	0.77	13.9	14.6	0.68	3.31	3.99	—	19,334	19,334	0.45	0.90	19,642
2033	6.68	28.4	66.2	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	19,022	19,022	0.45	0.86	19,314
2034	6.33	28.2	64.0	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	18,733	18,733	0.45	0.86	19,022
2035	6.23	28.0	61.8	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	18,469	18,469	0.40	0.82	18,742
2036	6.03	27.8	59.7	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	18,232	18,232	0.40	0.82	18,502
2037	5.72	27.3	58.0	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	18,022	18,022	0.40	0.82	18,289
2038	5.09	27.2	56.9	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	17,831	17,831	0.40	0.78	18,084
2039	4.88	27.0	55.8	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	17,666	17,666	0.39	0.78	17,918
2040	4.62	26.9	54.7	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	17,522	17,522	0.34	0.78	17,770
2041	4.52	26.8	53.7	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	17,395	17,395	0.34	0.78	17,642
2042	4.32	26.7	53.1	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	17,283	17,283	0.34	0.74	17,517
2043	4.21	26.6	52.5	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	17,185	17,185	0.34	0.74	17,418
2044	65.3	13.3	10.8	0.01	0.58	2.48	2.55	0.54	0.58	0.64	—	2,328	2,328	0.06	0.03	2,339
2045	65.3	1.40	7.82	< 0.005	0.07	2.48	2.55	0.06	0.58	0.64	—	2,321	2,321	0.04	0.03	2,332
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.13	39.9	28.8	0.05	1.12	7.76	8.88	1.02	3.96	4.98	—	5,390	5,390	0.22	0.05	5,410
2027	1.39	48.9	35.9	0.06	1.36	7.76	8.88	1.23	3.96	4.98	—	6,701	6,701	0.27	0.06	6,726
2028	7.77	48.9	72.5	0.06	1.36	13.9	14.6	1.23	3.31	4.03	—	19,362	19,362	0.69	1.42	19,803

2029	7.32	31.8	68.9	0.06	0.77	13.9	14.6	0.72	3.31	4.03	—	19,007	19,007	0.69	1.38	19,437
2030	6.91	31.1	65.4	0.06	0.77	13.9	14.6	0.72	3.31	4.03	—	18,656	18,656	0.60	1.33	19,069
2031	6.65	30.4	62.0	0.06	0.77	13.9	14.6	0.68	3.31	3.99	—	18,318	18,318	0.55	1.29	18,718
2032	6.30	30.1	59.2	0.06	0.77	13.9	14.6	0.68	3.31	3.99	—	17,998	17,998	0.55	0.90	18,279
2033	6.10	29.5	56.8	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	17,705	17,705	0.55	0.86	17,975
2034	5.80	29.3	54.6	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	17,434	17,434	0.50	0.86	17,702
2035	5.63	29.1	53.0	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	17,186	17,186	0.50	0.82	17,443
2036	5.58	28.5	51.3	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	16,963	16,963	0.50	0.82	17,220
2037	5.00	28.3	49.8	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	16,765	16,765	0.44	0.82	17,020
2038	4.85	28.2	48.5	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	16,585	16,585	0.44	0.78	16,829
2039	4.65	28.0	47.6	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	16,430	16,430	0.44	0.78	16,674
2040	4.40	27.9	46.7	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	16,294	16,294	0.44	0.78	16,538
2041	4.25	27.4	46.0	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	16,174	16,174	0.39	0.78	16,416
2042	4.15	27.3	45.3	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	16,068	16,068	0.39	0.74	16,299
2043	4.10	27.3	45.0	0.06	0.73	13.9	14.6	0.68	3.31	3.99	—	15,976	15,976	0.39	0.74	16,206
2044	65.3	13.3	10.8	0.01	0.58	2.48	2.55	0.54	0.58	0.64	—	2,085	2,085	0.06	0.03	2,095
2045	65.3	1.43	6.28	< 0.005	0.07	2.48	2.55	0.06	0.58	0.64	—	2,079	2,079	0.05	0.03	2,089
2046	65.2	1.43	6.25	< 0.005	0.07	2.48	2.55	0.06	0.58	0.64	—	2,074	2,074	0.05	0.03	2,084
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.80	28.2	20.3	0.03	0.79	5.48	6.27	0.72	2.80	3.52	—	3,810	3,810	0.15	0.03	3,824
2027	0.95	33.3	24.4	0.04	0.93	3.35	4.28	0.84	1.47	2.32	—	4,560	4,560	0.18	0.04	4,577
2028	3.63	28.1	40.9	0.04	0.73	6.69	7.43	0.67	1.77	2.45	—	10,093	10,093	0.34	0.57	10,281
2029	5.27	22.2	49.6	0.04	0.55	9.77	10.3	0.51	2.33	2.85	—	13,859	13,859	0.42	0.95	14,167
2030	5.06	21.7	47.0	0.04	0.55	9.77	10.3	0.51	2.33	2.85	—	13,604	13,604	0.39	0.94	13,907
2031	4.80	21.5	44.8	0.04	0.55	9.77	10.3	0.49	2.33	2.82	—	13,358	13,358	0.35	0.64	13,567
2032	4.56	21.0	43.1	0.04	0.55	9.80	10.3	0.49	2.34	2.83	—	13,160	13,160	0.35	0.64	13,369
2033	4.40	20.8	41.2	0.04	0.52	9.77	10.3	0.49	2.33	2.82	—	12,911	12,911	0.35	0.61	13,110
2034	4.19	20.6	39.7	0.04	0.52	9.77	10.3	0.49	2.33	2.82	—	12,714	12,714	0.32	0.61	12,911

2035	4.08	20.2	38.4	0.04	0.52	9.77	10.3	0.49	2.33	2.82	—	12,534	12,534	0.32	0.58	12,722
2036	4.06	20.2	37.2	0.04	0.52	9.80	10.3	0.49	2.34	2.83	—	12,405	12,405	0.32	0.59	12,593
2037	3.58	20.0	36.1	0.04	0.52	9.77	10.3	0.49	2.33	2.82	—	12,228	12,228	0.32	0.58	12,414
2038	3.47	19.9	35.2	0.04	0.52	9.77	10.3	0.49	2.33	2.82	—	12,097	12,097	0.28	0.56	12,273
2039	3.30	19.5	34.6	0.04	0.52	9.77	10.3	0.49	2.33	2.82	—	11,985	11,985	0.28	0.56	12,160
2040	3.16	19.5	34.2	0.04	0.52	9.80	10.3	0.49	2.34	2.83	—	11,918	11,918	0.28	0.56	12,094
2041	3.08	19.4	33.6	0.04	0.52	9.77	10.3	0.49	2.33	2.82	—	11,798	11,798	0.28	0.56	11,973
2042	2.97	19.3	33.1	0.04	0.52	9.77	10.3	0.49	2.33	2.82	—	11,721	11,721	0.28	0.53	11,888
2043	2.47	17.5	28.4	0.04	0.50	8.12	8.62	0.47	1.94	2.41	—	9,860	9,860	0.24	0.44	9,998
2044	15.3	6.74	6.70	0.01	0.29	0.60	0.90	0.28	0.14	0.42	—	1,257	1,257	0.04	0.01	1,262
2045	46.6	1.01	4.60	< 0.005	0.05	1.75	1.79	0.04	0.41	0.45	—	1,534	1,534	0.03	0.02	1,542
2046	0.64	0.01	0.06	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	21.0	21.0	< 0.005	< 0.005	21.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.15	5.14	3.71	0.01	0.14	1.00	1.14	0.13	0.51	0.64	—	631	631	0.03	0.01	633
2027	0.17	6.09	4.45	0.01	0.17	0.61	0.78	0.15	0.27	0.42	—	755	755	0.03	0.01	758
2028	0.66	5.13	7.47	0.01	0.13	1.22	1.36	0.12	0.32	0.45	—	1,671	1,671	0.06	0.09	1,702
2029	0.96	4.05	9.05	0.01	0.10	1.78	1.88	0.09	0.43	0.52	—	2,295	2,295	0.07	0.16	2,345
2030	0.92	3.96	8.58	0.01	0.10	1.78	1.88	0.09	0.43	0.52	—	2,252	2,252	0.06	0.16	2,302
2031	0.88	3.92	8.18	0.01	0.10	1.78	1.88	0.09	0.43	0.51	—	2,211	2,211	0.06	0.11	2,246
2032	0.83	3.84	7.86	0.01	0.10	1.79	1.89	0.09	0.43	0.52	—	2,179	2,179	0.06	0.11	2,213
2033	0.80	3.79	7.52	0.01	0.09	1.78	1.88	0.09	0.43	0.51	—	2,138	2,138	0.06	0.10	2,170
2034	0.76	3.77	7.25	0.01	0.09	1.78	1.88	0.09	0.43	0.51	—	2,105	2,105	0.05	0.10	2,138
2035	0.74	3.69	7.00	0.01	0.09	1.78	1.88	0.09	0.43	0.51	—	2,075	2,075	0.05	0.10	2,106
2036	0.74	3.68	6.78	0.01	0.10	1.79	1.88	0.09	0.43	0.52	—	2,054	2,054	0.05	0.10	2,085
2037	0.65	3.64	6.58	0.01	0.09	1.78	1.88	0.09	0.43	0.51	—	2,024	2,024	0.05	0.10	2,055
2038	0.63	3.63	6.42	0.01	0.09	1.78	1.88	0.09	0.43	0.51	—	2,003	2,003	0.05	0.09	2,032
2039	0.60	3.56	6.32	0.01	0.09	1.78	1.88	0.09	0.43	0.51	—	1,984	1,984	0.05	0.09	2,013
2040	0.58	3.56	6.24	0.01	0.10	1.79	1.88	0.09	0.43	0.52	—	1,973	1,973	0.05	0.09	2,002

2041	0.56	3.53	6.13	0.01	0.09	1.78	1.88	0.09	0.43	0.51	—	1,953	1,953	0.05	0.09	1,982
2042	0.54	3.52	6.05	0.01	0.09	1.78	1.88	0.09	0.43	0.51	—	1,941	1,941	0.05	0.09	1,968
2043	0.45	3.20	5.18	0.01	0.09	1.48	1.57	0.09	0.35	0.44	—	1,632	1,632	0.04	0.07	1,655
2044	2.80	1.23	1.22	< 0.005	0.05	0.11	0.16	0.05	0.03	0.08	—	208	208	0.01	< 0.005	209
2045	8.51	0.18	0.84	< 0.005	0.01	0.32	0.33	0.01	0.07	0.08	—	254	254	< 0.005	< 0.005	255
2046	0.12	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.47	3.47	< 0.005	< 0.005	3.49

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	181	83.7	698	1.54	2.74	141	144	2.67	35.8	38.5	2,066	187,419	189,484	217	8.40	197,553
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	156	89.3	444	1.41	2.61	141	144	2.57	35.8	38.4	2,066	174,984	177,050	218	8.87	185,248
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	166	86.4	539	1.45	2.68	139	142	2.62	35.3	37.9	2,066	178,616	180,682	218	8.61	188,805
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	30.4	15.8	98.4	0.26	0.49	25.4	25.9	0.48	6.44	6.92	342	29,572	29,914	36.0	1.43	31,259

2.5. Operations Emissions by Sector, Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	71.3	57.6	491	1.38	0.67	141	142	0.63	35.8	36.4	—	140,772	140,772	4.38	6.97	142,988
Area	108	1.76	195	0.01	0.14	—	0.14	0.10	—	0.10	0.00	575	575	0.02	< 0.005	577
Energy	1.40	24.2	12.3	0.15	1.94	—	1.94	1.94	—	1.94	—	45,562	45,562	5.14	0.35	45,796
Water	—	—	—	—	—	—	—	—	—	—	433	510	943	44.5	1.07	2,374
Waste	—	—	—	—	—	—	—	—	—	—	1,632	0.00	1,632	163	0.00	5,711
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107
Total	181	83.7	698	1.54	2.74	141	144	2.67	35.8	38.5	2,066	187,419	189,484	217	8.40	197,553
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	66.4	65.0	432	1.26	0.67	141	142	0.63	35.8	36.4	—	128,913	128,913	5.10	7.45	131,261
Area	88.4	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	1.40	24.2	12.3	0.15	1.94	—	1.94	1.94	—	1.94	—	45,562	45,562	5.14	0.35	45,796
Water	—	—	—	—	—	—	—	—	—	—	433	510	943	44.5	1.07	2,374
Waste	—	—	—	—	—	—	—	—	—	—	1,632	0.00	1,632	163	0.00	5,711
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107
Total	156	89.3	444	1.41	2.61	141	144	2.57	35.8	38.4	2,066	174,984	177,050	218	8.87	185,248
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	66.8	61.3	430	1.29	0.67	139	140	0.63	35.3	35.9	—	132,261	132,261	4.72	7.19	134,533
Area	98.2	0.87	96.3	< 0.005	0.07	—	0.07	0.05	—	0.05	0.00	284	284	0.01	< 0.005	285
Energy	1.40	24.2	12.3	0.15	1.94	—	1.94	1.94	—	1.94	—	45,562	45,562	5.14	0.35	45,796
Water	—	—	—	—	—	—	—	—	—	—	433	510	943	44.5	1.07	2,374
Waste	—	—	—	—	—	—	—	—	—	—	1,632	0.00	1,632	163	0.00	5,711
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107
Total	166	86.4	539	1.45	2.68	139	142	2.62	35.3	37.9	2,066	178,616	180,682	218	8.61	188,805
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	12.2	11.2	78.5	0.24	0.12	25.4	25.5	0.12	6.44	6.56	—	21,897	21,897	0.78	1.19	22,273
Area	17.9	0.16	17.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	47.0	47.0	< 0.005	< 0.005	47.1
Energy	0.26	4.42	2.25	0.03	0.35	—	0.35	0.35	—	0.35	—	7,543	7,543	0.85	0.06	7,582
Water	—	—	—	—	—	—	—	—	—	—	71.7	84.4	156	7.37	0.18	393
Waste	—	—	—	—	—	—	—	—	—	—	270	0.00	270	27.0	0.00	945
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.8
Total	30.4	15.8	98.4	0.26	0.49	25.4	25.9	0.48	6.44	6.92	342	29,572	29,914	36.0	1.43	31,259

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	39.9	28.3	0.05	1.12	—	1.12	1.02	—	1.02	—	5,298	5,298	0.21	0.04	5,316
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	39.9	28.3	0.05	1.12	—	1.12	1.02	—	1.02	—	5,298	5,298	0.21	0.04	5,316

Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	28.2	20.0	0.03	0.79	—	0.79	0.72	—	0.72	—	3,743	3,743	0.15	0.03	3,756
Dust From Material Movement	—	—	—	—	—	5.42	5.42	—	2.78	2.78	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	5.14	3.65	0.01	0.14	—	0.14	0.13	—	0.13	—	620	620	0.03	0.01	622
Dust From Material Movement	—	—	—	—	—	0.99	0.99	—	0.51	0.51	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.04	0.60	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	106
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	92.2	92.2	< 0.005	< 0.005	93.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.5	67.5	< 0.005	< 0.005	68.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	11.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	39.9	28.3	0.05	1.12	—	1.12	1.02	—	1.02	—	5,298	5,298	0.21	0.04	5,316
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	6.94	4.93	0.01	0.19	—	0.19	0.18	—	0.18	—	923	923	0.04	0.01	926
Dust From Material Movement	—	—	—	—	—	1.34	1.34	—	0.69	0.69	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	1.27	0.90	< 0.005	0.04	—	0.04	0.03	—	0.03	—	153	153	0.01	< 0.005	153
Dust From Material Movement	—	—	—	—	—	0.24	0.24	—	0.13	0.13	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.45	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	90.3	90.3	< 0.005	< 0.005	91.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.3	16.3	< 0.005	< 0.005	16.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.70	2.70	< 0.005	< 0.005	2.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33	48.8	35.3	0.06	1.36	—	1.36	1.23	—	1.23	—	6,598	6,598	0.27	0.05	6,621
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33	48.8	35.3	0.06	1.36	—	1.36	1.23	—	1.23	—	6,598	6,598	0.27	0.05	6,621
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.72	26.4	19.1	0.03	0.73	—	0.73	0.67	—	0.67	—	3,564	3,564	0.14	0.03	3,576
Dust From Material Movement	—	—	—	—	—	1.94	1.94	—	0.77	0.77	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	4.81	3.48	0.01	0.13	—	0.13	0.12	—	0.12	—	590	590	0.02	< 0.005	592
Dust From Material Movement	—	—	—	—	—	0.35	0.35	—	0.14	0.14	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.04	0.63	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	116	116	< 0.005	< 0.005	118
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	103	103	< 0.005	0.01	105
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.02	0.28	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	57.7	57.7	< 0.005	< 0.005	58.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.56	9.56	< 0.005	< 0.005	9.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.7. Grading (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33	48.8	35.3	0.06	1.36	—	1.36	1.23	—	1.23	—	6,598	6,598	0.27	0.05	6,621
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33	48.8	35.3	0.06	1.36	—	1.36	1.23	—	1.23	—	6,598	6,598	0.27	0.05	6,621
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.41	15.2	11.0	0.02	0.42	—	0.42	0.38	—	0.38	—	2,053	2,053	0.08	0.02	2,060
Dust From Material Movement	—	—	—	—	—	1.12	1.12	—	0.44	0.44	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.77	2.01	< 0.005	0.08	—	0.08	0.07	—	0.07	—	340	340	0.01	< 0.005	341
Dust From Material Movement	—	—	—	—	—	0.20	0.20	—	0.08	0.08	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.03	0.59	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	114	114	< 0.005	< 0.005	116
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.48	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	101	101	< 0.005	0.01	103
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.6	32.6	< 0.005	< 0.005	33.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.40	5.40	< 0.005	< 0.005	5.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	7.64	5.79	0.01	0.28	—	0.28	0.26	—	0.26	—	971	971	0.04	0.01	975
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	1.40	1.06	< 0.005	0.05	—	0.05	0.05	—	0.05	—	161	161	0.01	< 0.005	161
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.83	3.73	67.2	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	12,999	12,999	0.35	0.54	13,206
Vendor	0.29	8.45	3.80	0.04	0.08	1.47	1.55	0.08	0.41	0.48	—	5,407	5,407	0.14	0.81	5,663
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.87	4.76	54.2	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,546	11,546	0.45	0.59	11,734
Vendor	0.28	8.97	3.97	0.04	0.08	1.47	1.55	0.08	0.41	0.48	—	5,418	5,418	0.14	0.81	5,664
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.82	1.71	22.4	0.00	0.00	4.95	4.95	0.00	1.16	1.16	—	4,844	4,844	0.16	0.22	4,919
Vendor	0.12	3.54	1.57	0.02	0.03	0.59	0.62	0.03	0.16	0.19	—	2,192	2,192	0.05	0.33	2,293
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.52	0.31	4.09	0.00	0.00	0.90	0.90	0.00	0.21	0.21	—	802	802	0.03	0.04	814
Vendor	0.02	0.65	0.29	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	363	363	0.01	0.05	380
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2029) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,712	1,712	0.07	0.01	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	7.32	3.29	62.7	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	12,759	12,759	0.30	0.54	12,961
Vendor	0.25	8.14	3.73	0.04	0.08	1.47	1.55	0.08	0.41	0.48	—	5,263	5,263	0.14	0.77	5,506
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	6.47	4.32	50.7	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,335	11,335	0.45	0.59	11,523
Vendor	0.23	8.66	3.90	0.04	0.08	1.47	1.55	0.08	0.41	0.48	—	5,274	5,274	0.14	0.77	5,509
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.66	2.70	36.7	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	8,385	8,385	0.25	0.38	8,516
Vendor	0.17	6.03	2.72	0.03	0.06	1.04	1.09	0.06	0.29	0.34	—	3,763	3,763	0.10	0.55	3,933
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.85	0.49	6.69	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,388	1,388	0.04	0.06	1,410
Vendor	0.03	1.10	0.50	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	623	623	0.02	0.09	651
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2030) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,712	1,712	0.07	0.01	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.92	3.19	58.2	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	12,532	12,532	0.30	0.15	12,615
Vendor	0.25	7.91	3.68	0.04	0.08	1.47	1.55	0.08	0.41	0.48	—	5,112	5,112	0.10	0.76	5,350
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.07	3.83	47.3	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,136	11,136	0.40	0.54	11,308
Vendor	0.22	8.40	3.83	0.04	0.08	1.47	1.55	0.08	0.41	0.48	—	5,123	5,123	0.10	0.77	5,356
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.44	2.35	34.1	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	8,237	8,237	0.25	0.38	8,367
Vendor	0.17	5.87	2.67	0.03	0.06	1.04	1.09	0.06	0.29	0.34	—	3,655	3,655	0.07	0.55	3,821
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.81	0.43	6.23	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,364	1,364	0.04	0.06	1,385
Vendor	0.03	1.07	0.49	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	605	605	0.01	0.09	633

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2031) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.47	2.75	54.6	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	12,325	12,325	0.25	0.15	12,403
Vendor	0.25	7.69	3.63	0.04	0.08	1.47	1.55	0.04	0.41	0.45	—	4,956	4,956	0.10	0.73	5,182
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.82	3.34	44.0	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	10,954	10,954	0.35	0.54	11,124
Vendor	0.21	8.18	3.77	0.04	0.08	1.47	1.55	0.04	0.41	0.45	—	4,968	4,968	0.10	0.74	5,190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.19	2.32	32.0	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	8,102	8,102	0.22	0.11	8,148
Vendor	0.17	5.68	2.63	0.03	0.06	1.04	1.09	0.03	0.29	0.31	—	3,544	3,544	0.07	0.52	3,702
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.76	0.42	5.83	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,341	1,341	0.04	0.02	1,349
Vendor	0.03	1.04	0.48	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	587	587	0.01	0.09	613
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.17. Building Construction (2032) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,717	1,717	0.07	0.01	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.47	1.87	< 0.005	0.09	—	0.09	0.08	—	0.08	—	284	284	0.01	< 0.005	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	6.07	2.70	51.4	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	12,132	12,132	0.25	0.15	12,207
Vendor	0.24	7.47	3.57	0.04	0.08	1.47	1.55	0.04	0.41	0.45	—	4,805	4,805	0.10	0.73	5,030
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.46	3.29	41.2	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	10,784	10,784	0.35	0.15	10,838
Vendor	0.21	7.96	3.71	0.04	0.08	1.47	1.55	0.04	0.41	0.45	—	4,817	4,817	0.10	0.73	5,036
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.95	1.97	30.2	0.00	0.00	8.76	8.76	0.00	2.05	2.05	—	7,998	7,998	0.22	0.11	8,043
Vendor	0.17	5.54	2.60	0.03	0.06	1.04	1.10	0.03	0.29	0.32	—	3,445	3,445	0.07	0.52	3,604
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.72	0.36	5.52	0.00	0.00	1.60	1.60	0.00	0.37	0.37	—	1,324	1,324	0.04	0.02	1,332
Vendor	0.03	1.01	0.47	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	570	570	0.01	0.09	597
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.19. Building Construction (2033) - Unmitigated

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

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

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.82	2.27	48.4	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,963	11,963	0.25	0.15	12,035
Vendor	0.24	7.26	3.52	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,662	4,662	0.10	0.69	4,874
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.26	2.86	38.9	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	10,634	10,634	0.35	0.15	10,689
Vendor	0.21	7.76	3.66	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,674	4,674	0.10	0.69	4,881
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.80	1.93	28.4	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	7,865	7,865	0.22	0.11	7,909
Vendor	0.17	5.38	2.56	0.03	0.03	1.04	1.07	0.03	0.29	0.31	—	3,333	3,333	0.07	0.49	3,483
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69	0.35	5.19	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,302	1,302	0.04	0.02	1,309
Vendor	0.03	0.98	0.47	0.01	0.01	0.19	0.19	0.01	0.05	0.06	—	552	552	0.01	0.08	577
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.21. Building Construction (2034) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,712	1,712	0.07	0.01	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.46	2.22	46.2	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,809	11,809	0.25	0.15	11,878
Vendor	0.24	7.09	3.47	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,527	4,527	0.10	0.69	4,738

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.96	2.81	36.7	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	10,498	10,498	0.30	0.15	10,551
Vendor	0.21	7.59	3.61	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,539	4,539	0.10	0.69	4,746
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.58	1.90	27.0	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	7,765	7,765	0.18	0.11	7,807
Vendor	0.17	5.26	2.52	0.03	0.03	1.04	1.07	0.03	0.29	0.31	—	3,237	3,237	0.07	0.49	3,386
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.35	4.92	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,286	1,286	0.03	0.02	1,293
Vendor	0.03	0.96	0.46	0.01	0.01	0.19	0.19	0.01	0.05	0.06	—	536	536	0.01	0.08	561
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.23. Building Construction (2035) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,712	1,712	0.07	0.01	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.36	2.17	44.1	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,671	11,671	0.20	0.15	11,737
Vendor	0.24	6.93	3.46	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,401	4,401	0.10	0.65	4,600
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.81	2.75	35.1	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	10,376	10,376	0.30	0.15	10,429
Vendor	0.20	7.43	3.56	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,413	4,413	0.10	0.65	4,609
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.47	1.62	25.7	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	7,675	7,675	0.18	0.11	7,716
Vendor	0.17	5.14	2.49	0.03	0.03	1.04	1.07	0.03	0.29	0.31	—	3,147	3,147	0.07	0.46	3,288
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.63	0.30	4.68	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,271	1,271	0.03	0.02	1,277
Vendor	0.03	0.94	0.45	0.01	0.01	0.19	0.19	0.01	0.05	0.06	—	521	521	0.01	0.08	544
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.25. Building Construction (2036) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,717	1,717	0.07	0.01	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.47	1.87	< 0.005	0.09	—	0.09	0.08	—	0.08	—	284	284	0.01	< 0.005	285

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	5.16	2.17	42.0	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,547	11,547	0.20	0.15	11,610
Vendor	0.24	6.80	3.42	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,288	4,288	0.10	0.65	4,486
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.76	2.32	33.5	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	10,266	10,266	0.30	0.15	10,319
Vendor	0.20	7.26	3.56	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,300	4,300	0.10	0.65	4,495
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.45	1.59	24.4	0.00	0.00	8.76	8.76	0.00	2.05	2.05	—	7,614	7,614	0.18	0.11	7,655
Vendor	0.17	5.06	2.49	0.03	0.03	1.04	1.07	0.03	0.29	0.32	—	3,075	3,075	0.07	0.46	3,216
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.63	0.29	4.46	0.00	0.00	1.60	1.60	0.00	0.37	0.37	—	1,261	1,261	0.03	0.02	1,267
Vendor	0.03	0.92	0.45	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	509	509	0.01	0.08	532
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.27. Building Construction (2037) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,712	1,712	0.07	0.01	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.86	1.73	40.4	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,438	11,438	0.20	0.15	11,499
Vendor	0.24	6.68	3.39	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,187	4,187	0.10	0.65	4,384
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	4.17	2.27	32.0	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	10,170	10,170	0.25	0.15	10,221
Vendor	0.20	7.15	3.50	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,199	4,199	0.09	0.65	4,394
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.98	1.55	23.4	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	7,522	7,522	0.18	0.11	7,562
Vendor	0.16	4.94	2.45	0.03	0.03	1.04	1.07	0.03	0.29	0.31	—	2,994	2,994	0.07	0.46	3,134
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.54	0.28	4.27	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,245	1,245	0.03	0.02	1,252
Vendor	0.03	0.90	0.45	0.01	0.01	0.19	0.19	0.01	0.05	0.06	—	496	496	0.01	0.08	519
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.29. Building Construction (2038) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,712	1,712	0.07	0.01	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.22	1.73	39.2	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,337	11,337	0.20	0.15	11,397
Vendor	0.24	6.57	3.38	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,096	4,096	0.10	0.61	4,282
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.02	2.27	30.7	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	10,080	10,080	0.25	0.15	10,131
Vendor	0.21	7.03	3.50	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,109	4,109	0.09	0.61	4,292
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.87	1.55	22.5	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	7,455	7,455	0.14	0.11	7,494
Vendor	0.16	4.86	2.45	0.03	0.03	1.04	1.07	0.03	0.29	0.31	—	2,930	2,930	0.06	0.44	3,061
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.52	0.28	4.11	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,234	1,234	0.02	0.02	1,241
Vendor	0.03	0.89	0.45	0.01	0.01	0.19	0.19	0.01	0.05	0.06	—	485	485	0.01	0.07	507

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.31. Building Construction (2039) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	4.02	1.68	38.1	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,253	11,253	0.20	0.15	11,311
Vendor	0.24	6.46	3.38	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,016	4,016	0.09	0.61	4,201
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.82	2.22	29.8	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	10,005	10,005	0.25	0.15	10,057
Vendor	0.21	6.93	3.50	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	4,028	4,028	0.09	0.61	4,212
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.69	1.24	22.0	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	7,400	7,400	0.14	0.11	7,438
Vendor	0.16	4.81	2.45	0.03	0.03	1.04	1.07	0.03	0.29	0.31	—	2,872	2,872	0.06	0.44	3,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.49	0.23	4.01	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,225	1,225	0.02	0.02	1,231
Vendor	0.03	0.88	0.45	0.01	0.01	0.19	0.19	0.01	0.05	0.06	—	476	476	0.01	0.07	497
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.33. Building Construction (2040) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,717	1,717	0.07	0.01	1,723
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.47	1.87	< 0.005	0.09	—	0.09	0.08	—	0.08	—	284	284	0.01	< 0.005	285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.77	1.68	37.0	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,180	11,180	0.15	0.15	11,236
Vendor	0.23	6.38	3.34	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	3,944	3,944	0.09	0.61	4,129
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.57	2.22	29.0	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	9,941	9,941	0.25	0.15	9,992
Vendor	0.21	6.81	3.46	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	3,957	3,957	0.09	0.61	4,140
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.56	1.24	21.5	0.00	0.00	8.76	8.76	0.00	2.05	2.05	—	7,373	7,373	0.14	0.11	7,410
Vendor	0.16	4.74	2.43	0.03	0.03	1.04	1.07	0.03	0.29	0.32	—	2,829	2,829	0.06	0.44	2,961
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.47	0.23	3.92	0.00	0.00	1.60	1.60	0.00	0.37	0.37	—	1,221	1,221	0.02	0.02	1,227
Vendor	0.03	0.86	0.44	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	468	468	0.01	0.07	490
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.35. Building Construction (2041) - Unmitigated

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

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

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.67	1.63	36.1	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,117	11,117	0.15	0.15	11,172
Vendor	0.23	6.28	3.34	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	3,881	3,881	0.09	0.61	4,065
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.42	1.78	28.2	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	9,884	9,884	0.20	0.15	9,935
Vendor	0.21	6.74	3.45	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	3,893	3,893	0.09	0.61	4,077
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.48	1.20	20.9	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	7,311	7,311	0.14	0.11	7,348
Vendor	0.16	4.68	2.42	0.03	0.03	1.04	1.07	0.03	0.29	0.31	—	2,775	2,775	0.06	0.44	2,907
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.45	0.22	3.82	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,210	1,210	0.02	0.02	1,217
Vendor	0.03	0.85	0.44	0.01	0.01	0.19	0.19	0.01	0.05	0.06	—	460	460	0.01	0.07	481
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.37. Building Construction (2042) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	13.5	10.2	0.02	0.49	—	0.49	0.46	—	0.46	—	1,712	1,712	0.07	0.01	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	2.46	1.86	< 0.005	0.09	—	0.09	0.08	—	0.08	—	283	283	0.01	< 0.005	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.47	1.63	35.4	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,062	11,062	0.15	0.15	11,115
Vendor	0.23	6.21	3.35	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	3,824	3,824	0.09	0.57	3,997

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.32	1.78	27.6	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	9,835	9,835	0.20	0.15	9,885
Vendor	0.21	6.68	3.45	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	3,836	3,836	0.09	0.57	4,008
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.37	1.20	20.5	0.00	0.00	8.73	8.73	0.00	2.04	2.04	—	7,274	7,274	0.14	0.11	7,312
Vendor	0.16	4.60	2.42	0.03	0.03	1.04	1.07	0.03	0.29	0.31	—	2,735	2,735	0.06	0.41	2,858
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.22	3.74	0.00	0.00	1.59	1.59	0.00	0.37	0.37	—	1,204	1,204	0.02	0.02	1,211
Vendor	0.03	0.84	0.44	0.01	0.01	0.19	0.19	0.01	0.05	0.06	—	453	453	0.01	0.07	473
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.39. Building Construction (2043) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.62	18.9	14.3	0.02	0.69	—	0.69	0.64	—	0.64	—	2,397	2,397	0.10	0.02	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	11.2	8.48	0.01	0.41	—	0.41	0.38	—	0.38	—	1,421	1,421	0.06	0.01	1,426
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	2.04	1.55	< 0.005	0.07	—	0.07	0.07	—	0.07	—	235	235	0.01	< 0.005	236
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.37	1.63	34.9	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	11,014	11,014	0.15	0.15	11,066
Vendor	0.22	6.14	3.30	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	3,774	3,774	0.09	0.57	3,947
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.27	1.78	27.3	0.00	0.00	12.4	12.4	0.00	2.91	2.91	—	9,793	9,793	0.20	0.15	9,843
Vendor	0.21	6.62	3.42	0.04	0.04	1.47	1.51	0.04	0.41	0.45	—	3,786	3,786	0.09	0.57	3,959
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.91	1.00	16.7	0.00	0.00	7.25	7.25	0.00	1.70	1.70	—	6,013	6,013	0.12	0.09	6,043
Vendor	0.13	3.78	1.99	0.02	0.02	0.86	0.89	0.02	0.24	0.26	—	2,241	2,241	0.05	0.34	2,343
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.35	0.18	3.04	0.00	0.00	1.32	1.32	0.00	0.31	0.31	—	995	995	0.02	0.01	1,001
Vendor	0.02	0.69	0.36	< 0.005	< 0.005	0.16	0.16	< 0.005	0.04	0.05	—	371	371	0.01	0.06	388
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.41. Paving (2043) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	13.3	10.6	0.01	0.58	—	0.58	0.54	—	0.54	—	1,511	1,511	0.06	0.01	1,516
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	1.56	1.24	< 0.005	0.07	—	0.07	0.06	—	0.06	—	177	177	0.01	< 0.005	178
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.29	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.4	29.4	< 0.005	< 0.005	29.5
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.18	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	64.4	64.4	< 0.005	< 0.005	64.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.83	7.83	< 0.005	< 0.005	7.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.30	1.30	< 0.005	< 0.005	1.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.43. Paving (2044) - Unmitigated

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

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

Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	13.3	10.6	0.01	0.58	—	0.58	0.54	—	0.54	—	1,511	1,511	0.06	0.01	1,516
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	6.40	5.10	0.01	0.28	—	0.28	0.26	—	0.26	—	727	727	0.03	0.01	730
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	1.17	0.93	< 0.005	0.05	—	0.05	0.05	—	0.05	—	120	120	< 0.005	< 0.005	121
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.23	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	72.2	72.2	< 0.005	< 0.005	72.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.01	0.18	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	64.2	64.2	< 0.005	< 0.005	64.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	32.0	32.0	< 0.005	< 0.005	32.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.30	5.30	< 0.005	< 0.005	5.32
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.45. Architectural Coating (2044) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	64.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134

Architect Coatings	64.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.25	0.22	< 0.005	0.02	—	0.02	0.01	—	0.01	—	30.8	30.8	< 0.005	< 0.005	30.9
Architectural Coatings	14.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.10	5.10	< 0.005	< 0.005	5.12
Architectural Coatings	2.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.32	6.94	0.00	0.00	2.48	2.48	0.00	0.58	0.58	—	2,195	2,195	0.03	0.03	2,205
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.62	0.35	5.34	0.00	0.00	2.48	2.48	0.00	0.58	0.58	—	1,951	1,951	0.04	0.03	1,961
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.08	1.29	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	467	467	0.01	0.01	469
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.24	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	77.3	77.3	< 0.005	< 0.005	77.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.47. Architectural Coating (2045) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	64.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	64.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.78	0.69	< 0.005	0.05	—	0.05	0.04	—	0.04	—	95.4	95.4	< 0.005	< 0.005	95.7
Architectural Coatings	46.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.14	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.8	15.8	< 0.005	< 0.005	15.8
Architectural Coatings	8.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.63	0.32	6.86	0.00	0.00	2.48	2.48	0.00	0.58	0.58	—	2,188	2,188	0.03	0.03	2,198
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.61	0.35	5.31	0.00	0.00	2.48	2.48	0.00	0.58	0.58	—	1,945	1,945	0.04	0.03	1,955
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.44	0.23	3.92	0.00	0.00	1.75	1.75	0.00	0.41	0.41	—	1,439	1,439	0.02	0.02	1,446
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.04	0.71	0.00	0.00	0.32	0.32	0.00	0.07	0.07	—	238	238	< 0.005	< 0.005	239
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

3.49. Architectural Coating (2046) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	—	0.07	0.06	—	0.06	—	134	134	0.01	< 0.005	134
Architectural Coatings	64.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.31	1.31	< 0.005	< 0.005	1.31
Architectural Coatings	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.22	0.22	< 0.005	< 0.005	0.22
Architectural Coatings	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.59	0.35	5.28	0.00	0.00	2.48	2.48	0.00	0.58	0.58	—	1,940	1,940	0.04	0.03	1,950
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	19.7	19.7	< 0.005	< 0.005	19.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.25	3.25	< 0.005	< 0.005	3.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.76	0.59	4.91	0.01	0.01	1.37	1.37	0.01	0.35	0.35	—	1,369	1,369	0.05	0.07	1,392
Apartments Low Rise	32.9	25.5	211	0.58	0.28	58.8	59.1	0.27	14.9	15.2	—	58,925	58,925	1.96	3.02	59,885
Industrial Park	3.73	3.13	27.2	0.08	0.04	8.05	8.09	0.04	2.04	2.07	—	7,981	7,981	0.24	0.39	8,103
Strip Mall	33.9	28.4	247	0.71	0.34	73.1	73.5	0.32	18.5	18.8	—	72,497	72,497	2.14	3.50	73,608
Total	71.3	57.6	491	1.38	0.67	141	142	0.63	35.8	36.4	—	140,772	140,772	4.38	6.97	142,988
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.71	0.67	4.40	0.01	0.01	1.37	1.37	0.01	0.35	0.35	—	1,255	1,255	0.05	0.07	1,279
Apartments Low Rise	30.6	28.8	189	0.53	0.28	58.8	59.1	0.27	14.9	15.2	—	53,998	53,998	2.30	3.23	55,017
Industrial Park	3.48	3.53	23.6	0.07	0.04	8.05	8.09	0.04	2.04	2.07	—	7,305	7,305	0.27	0.41	7,434
Strip Mall	31.6	32.0	214	0.65	0.34	73.1	73.5	0.32	18.5	18.8	—	66,355	66,355	2.47	3.74	67,531
Total	66.4	65.0	432	1.26	0.67	141	142	0.63	35.8	36.4	—	128,913	128,913	5.10	7.45	131,261
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.13	0.12	0.79	< 0.005	< 0.005	0.25	0.25	< 0.005	0.06	0.06	—	213	213	0.01	0.01	217
Apartments Low Rise	5.62	4.95	34.2	0.10	0.05	10.6	10.6	0.05	2.68	2.73	—	9,170	9,170	0.35	0.51	9,333
Industrial Park	0.64	0.61	4.32	0.01	0.01	1.45	1.45	0.01	0.37	0.37	—	1,241	1,241	0.04	0.07	1,262
Strip Mall	5.80	5.51	39.3	0.12	0.06	13.1	13.2	0.06	3.33	3.39	—	11,273	11,273	0.38	0.60	11,462
Total	12.2	11.2	78.5	0.24	0.12	25.4	25.5	0.12	6.44	6.56	—	21,897	21,897	0.78	1.19	22,273

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	235	235	0.04	< 0.005	237
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7,441	7,441	1.20	0.15	7,514
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	4,161	4,161	0.67	0.08	4,203
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3,325	3,325	0.54	0.07	3,358
Total	—	—	—	—	—	—	—	—	—	—	—	15,162	15,162	2.45	0.30	15,312
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	235	235	0.04	< 0.005	237
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7,441	7,441	1.20	0.15	7,514
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	4,161	4,161	0.67	0.08	4,203
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3,325	3,325	0.54	0.07	3,358
Total	—	—	—	—	—	—	—	—	—	—	—	15,162	15,162	2.45	0.30	15,312
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	38.9	38.9	0.01	< 0.005	39.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1,232	1,232	0.20	0.02	1,244
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	689	689	0.11	0.01	696
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	550	550	0.09	0.01	556
Total	—	—	—	—	—	—	—	—	—	—	—	2,510	2,510	0.41	0.05	2,535

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	563
Apartments Low Rise	1.11	18.9	8.05	0.12	1.53	—	1.53	1.53	—	1.53	—	24,005	24,005	2.12	0.05	24,072

Industrial Park	0.19	3.41	2.86	0.02	0.26	—	0.26	0.26	—	0.26	—	4,065	4,065	0.36	0.01	4,076
Strip Mall	0.08	1.48	1.24	0.01	0.11	—	0.11	0.11	—	0.11	—	1,768	1,768	0.16	< 0.005	1,773
Total	1.40	24.2	12.3	0.15	1.94	—	1.94	1.94	—	1.94	—	30,399	30,399	2.69	0.06	30,484
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	563
Apartments Low Rise	1.11	18.9	8.05	0.12	1.53	—	1.53	1.53	—	1.53	—	24,005	24,005	2.12	0.05	24,072
Industrial Park	0.19	3.41	2.86	0.02	0.26	—	0.26	0.26	—	0.26	—	4,065	4,065	0.36	0.01	4,076
Strip Mall	0.08	1.48	1.24	0.01	0.11	—	0.11	0.11	—	0.11	—	1,768	1,768	0.16	< 0.005	1,773
Total	1.40	24.2	12.3	0.15	1.94	—	1.94	1.94	—	1.94	—	30,399	30,399	2.69	0.06	30,484
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	< 0.005	0.08	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.9	92.9	0.01	< 0.005	93.2
Apartments Low Rise	0.20	3.45	1.47	0.02	0.28	—	0.28	0.28	—	0.28	—	3,974	3,974	0.35	0.01	3,985
Industrial Park	0.03	0.62	0.52	< 0.005	0.05	—	0.05	0.05	—	0.05	—	673	673	0.06	< 0.005	675
Strip Mall	0.01	0.27	0.23	< 0.005	0.02	—	0.02	0.02	—	0.02	—	293	293	0.03	< 0.005	294
Total	0.26	4.42	2.25	0.03	0.35	—	0.35	0.35	—	0.35	—	5,033	5,033	0.45	0.01	5,047

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	82.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	6.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	19.9	1.76	195	0.01	0.14	—	0.14	0.10	—	0.10	—	575	575	0.02	< 0.005	577
Total	108	1.76	195	0.01	0.14	—	0.14	0.10	—	0.10	0.00	575	575	0.02	< 0.005	577
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	82.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	6.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	88.4	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	15.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscap Equipment	1.79	0.16	17.6	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.0	47.0	< 0.005	< 0.005	47.1
Total	17.9	0.16	17.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	47.0	47.0	< 0.005	< 0.005	47.1

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3.47	16.0	19.4	0.36	0.01	31.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	209	240	449	21.5	0.51	1,140
Industrial Park	—	—	—	—	—	—	—	—	—	—	141	162	302	14.5	0.35	767
Strip Mall	—	—	—	—	—	—	—	—	—	—	80.0	91.9	172	8.21	0.20	436
Total	—	—	—	—	—	—	—	—	—	—	433	510	943	44.5	1.07	2,374
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3.47	16.0	19.4	0.36	0.01	31.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	209	240	449	21.5	0.51	1,140
Industrial Park	—	—	—	—	—	—	—	—	—	—	141	162	302	14.5	0.35	767
Strip Mall	—	—	—	—	—	—	—	—	—	—	80.0	91.9	172	8.21	0.20	436

Total	—	—	—	—	—	—	—	—	—	—	433	510	943	44.5	1.07	2,374
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	0.58	2.64	3.22	0.06	< 0.005	5.13
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	34.6	39.8	74.4	3.56	0.09	189
Industrial Park	—	—	—	—	—	—	—	—	—	—	23.3	26.8	50.1	2.39	0.06	127
Strip Mall	—	—	—	—	—	—	—	—	—	—	13.2	15.2	28.4	1.36	0.03	72.1
Total	—	—	—	—	—	—	—	—	—	—	71.7	84.4	156	7.37	0.18	393

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	21.5	0.00	21.5	2.15	0.00	75.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	1,080	0.00	1,080	108	0.00	3,777
Industrial Park	—	—	—	—	—	—	—	—	—	—	212	0.00	212	21.2	0.00	743
Strip Mall	—	—	—	—	—	—	—	—	—	—	319	0.00	319	31.9	0.00	1,115
Total	—	—	—	—	—	—	—	—	—	—	1,632	0.00	1,632	163	0.00	5,711
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	21.5	0.00	21.5	2.15	0.00	75.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	1,080	0.00	1,080	108	0.00	3,777
Industrial Park	—	—	—	—	—	—	—	—	—	—	212	0.00	212	21.2	0.00	743
Strip Mall	—	—	—	—	—	—	—	—	—	—	319	0.00	319	31.9	0.00	1,115
Total	—	—	—	—	—	—	—	—	—	—	1,632	0.00	1,632	163	0.00	5,711
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3.57	0.00	3.57	0.36	0.00	12.5
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	179	0.00	179	17.9	0.00	625
Industrial Park	—	—	—	—	—	—	—	—	—	—	35.1	0.00	35.1	3.51	0.00	123
Strip Mall	—	—	—	—	—	—	—	—	—	—	52.8	0.00	52.8	5.28	0.00	185
Total	—	—	—	—	—	—	—	—	—	—	270	0.00	270	27.0	0.00	945

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.63

Apartments	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.6
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	82.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.51
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.63
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.6
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	82.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.51
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.40
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.8

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/5/2026	3/30/2027	5.00	322	—
Grading	Grading	3/31/2027	6/7/2028	5.00	310	—

Building Construction	Building Construction	6/8/2028	10/30/2043	5.00	4,017	—
Paving	Paving	11/2/2043	9/2/2044	5.00	220	—
Architectural Coating	Architectural Coating	9/5/2044	1/5/2046	5.00	350	Extend??

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 2	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 2	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 2	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 2	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 2	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 2	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 2	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 2	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 2	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 2	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 2	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 2	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 2	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 2	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 2	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 2	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	4.00	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	2,280	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	439	4.00	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	4.00	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	456	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	5,992,562	1,997,521	1,321,442	440,481	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	483	0.00	—
Grading	—	—	930	0.00	—
Paving	0.00	0.00	0.00	0.00	0.50

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt

Single Family Housing	0.50	0%
Apartments Low Rise	—	0%
Industrial Park	0.00	0%
Strip Mall	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005
2028	0.00	204	0.03	< 0.005
2029	0.00	204	0.03	< 0.005
2030	0.00	204	0.03	< 0.005
2031	0.00	204	0.03	< 0.005
2032	0.00	204	0.03	< 0.005
2033	0.00	204	0.03	< 0.005
2034	0.00	204	0.03	< 0.005
2035	0.00	204	0.03	< 0.005
2036	0.00	204	0.03	< 0.005
2037	0.00	204	0.03	< 0.005
2038	0.00	204	0.03	< 0.005
2039	0.00	204	0.03	< 0.005
2040	0.00	204	0.03	< 0.005
2041	0.00	204	0.03	< 0.005
2042	0.00	204	0.03	< 0.005
2043	0.00	204	0.03	< 0.005
2044	0.00	204	0.03	< 0.005
2045	0.00	204	0.03	< 0.005

2046	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	424	424	424	154,888	1,937	1,937	1,937	707,024
Apartments Low Rise	18,259	18,259	18,259	6,664,411	83,346	83,346	83,346	30,421,381
Industrial Park	2,026	2,026	2,026	739,560	11,404	11,404	11,404	4,162,437
Strip Mall	18,405	18,405	18,405	6,718,005	103,591	103,591	103,591	37,810,684

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	23
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1355
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
5992562.25	1,997,521	1,321,442	440,481	—

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	420,596	204	0.0330	0.0040	1,751,054
Apartments Low Rise	13,314,452	204	0.0330	0.0040	74,902,433

Industrial Park	7,446,218	204	0.0330	0.0040	12,684,055
Strip Mall	5,949,296	204	0.0330	0.0040	5,516,770

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	1,813,320	8,843,175
Apartments Low Rise	109,161,864	0.00
Industrial Park	73,441,531	0.00
Strip Mall	41,730,681	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	40.0	—
Apartments Low Rise	2,003	—
Industrial Park	394	—
Strip Mall	592	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

8. User Changes to Default Data

Screen	Justification
Land Use	The proposed land uses/improvements would occur on approximately 70.3 acres within the Tower District area. Proposed uses would consist of a total of 2,748 dwelling units with a mix of different densities ranging from low medium to high density. The project would also accommodate for 317,585 sq ft of light industrial uses and 563,376 sq ft of commercial uses
Construction: Construction Phases	Assuming no demolition would be required. Plan would have a 20-year buildout. This analysis assumed construction to begin in January 2026 and end in 2046, consistent with the buildout year.

Construction: Off-Road Equipment	default tier 2 equipment
Operations: Vehicle Data	Project would generate a total of approximately 39,055 average daily trips. Trips rates are based on the project's trip generation, as follows: Single-family: 424 ADT/45 units = 9.43 Multifamily: 18,258 ADT/ 2,709 units = 6.74 Industrial Park: 2,025 ADT/ 317.585 = 6.38 Strip Mall: 18,405 ADT = 563.376 = 32.67
Operations: Hearths	Assuming no wood burning hearths

APPENDIX B

APPROVED SPECIFIC PLAN CALEEMOD OUTPUT SHEETS

Tower District Specific Plan - Existing Conditions Custom Report

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5.18.2.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Tower District Specific Plan - Existing Conditions
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	22.6
Location	Tower District, Fresno, CA, USA
County	Fresno
City	Fresno
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2462
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	45.0	Dwelling Unit	14.6	87,750	527,079	—	144	—

Apartments Low Rise	2,172	Dwelling Unit	136	2,302,320	0.00	—	6,950	—
Strip Mall	448	1000sqft	10.3	447,759	0.00	—	—	—
Industrial Park	318	1000sqft	7.29	317,585	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	286	147	1,487	3.57	76.0	133	209	73.2	33.8	107	13,777	235,023	248,799	244	10.4	258,729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	251	159	1,260	3.43	75.9	133	209	73.2	33.8	107	13,777	220,422	234,199	245	11.1	243,768
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	218	132	925	2.11	19.4	131	151	18.7	33.3	52.0	4,435	206,527	210,962	201	10.7	219,540
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	39.8	24.2	169	0.39	3.54	23.9	27.5	3.42	6.07	9.49	734	34,193	34,927	33.2	1.77	36,347

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	139	98.4	809	1.69	1.37	133	134	1.28	33.8	35.0	—	172,483	172,483	8.81	9.15	176,058
Area	146	28.1	667	1.76	73.0	—	73.0	70.4	—	70.4	12,048	23,814	35,862	56.8	0.05	37,296
Energy	1.17	20.2	10.5	0.13	1.61	—	1.61	1.61	—	1.61	—	38,283	38,283	4.34	0.30	38,482
Water	—	—	—	—	—	—	—	—	—	—	375	443	819	38.6	0.92	2,058
Waste	—	—	—	—	—	—	—	—	—	—	1,353	0.00	1,353	135	0.00	4,733
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	103
Total	286	147	1,487	3.57	76.0	133	209	73.2	33.8	107	13,777	235,023	248,799	244	10.4	258,729
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	121	112	741	1.55	1.37	133	134	1.29	33.8	35.0	—	158,355	158,355	10.5	9.85	161,572
Area	129	26.6	508	1.75	72.9	—	72.9	70.3	—	70.3	12,048	23,340	35,389	56.8	0.04	36,821
Energy	1.17	20.2	10.5	0.13	1.61	—	1.61	1.61	—	1.61	—	38,283	38,283	4.34	0.30	38,482
Water	—	—	—	—	—	—	—	—	—	—	375	443	819	38.6	0.92	2,058
Waste	—	—	—	—	—	—	—	—	—	—	1,353	0.00	1,353	135	0.00	4,733
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	103
Total	251	159	1,260	3.43	75.9	133	209	73.2	33.8	107	13,777	220,422	234,199	245	11.1	243,768
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	124	106	722	1.59	1.37	131	133	1.29	33.3	34.6	—	162,324	162,324	9.63	9.47	165,659
Area	93.5	6.71	192	0.40	16.4	—	16.4	15.8	—	15.8	2,707	5,477	8,184	12.8	0.01	8,506
Energy	1.17	20.2	10.5	0.13	1.61	—	1.61	1.61	—	1.61	—	38,283	38,283	4.34	0.30	38,482
Water	—	—	—	—	—	—	—	—	—	—	375	443	819	38.6	0.92	2,058
Waste	—	—	—	—	—	—	—	—	—	—	1,353	0.00	1,353	135	0.00	4,733
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	103
Total	218	132	925	2.11	19.4	131	151	18.7	33.3	52.0	4,435	206,527	210,962	201	10.7	219,540

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.6	19.3	132	0.29	0.25	23.9	24.2	0.23	6.07	6.31	—	26,875	26,875	1.59	1.57	27,427
Area	17.1	1.22	35.1	0.07	3.00	—	3.00	2.89	—	2.89	448	907	1,355	2.11	< 0.005	1,408
Energy	0.21	3.68	1.91	0.02	0.29	—	0.29	0.29	—	0.29	—	6,338	6,338	0.72	0.05	6,371
Water	—	—	—	—	—	—	—	—	—	—	62.2	73.4	136	6.39	0.15	341
Waste	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.4	0.00	784
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.0
Total	39.8	24.2	169	0.39	3.54	23.9	27.5	3.42	6.07	9.49	734	34,193	34,927	33.2	1.77	36,347

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	1.60	1.06	8.64	0.02	0.01	1.37	1.38	0.01	0.35	0.36	—	1,784	1,784	0.10	0.10	1,822
Apartments Low Rise	55.4	36.8	300	0.61	0.50	47.4	47.9	0.47	12.0	12.5	—	61,838	61,838	3.40	3.40	63,159
Strip Mall	74.0	54.7	453	0.96	0.78	76.2	77.0	0.73	19.3	20.1	—	98,445	98,445	4.81	5.11	100,449
Industrial Park	7.83	5.79	47.9	0.10	0.08	8.07	8.15	0.08	2.05	2.12	—	10,416	10,416	0.51	0.54	10,628
Total	139	98.4	809	1.69	1.37	133	134	1.28	33.8	35.0	—	172,483	172,483	8.81	9.15	176,058
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	1.39	1.21	8.08	0.02	0.01	1.37	1.38	0.01	0.35	0.36	—	1,639	1,639	0.12	0.11	1,673
Apartments Low Rise	48.3	42.1	280	0.56	0.50	47.4	47.9	0.47	12.0	12.5	—	56,814	56,814	4.11	3.66	58,013
Strip Mall	64.7	62.5	409	0.88	0.78	76.2	77.0	0.73	19.3	20.1	—	90,344	90,344	5.71	5.51	92,137
Industrial Park	6.85	6.61	43.3	0.09	0.08	8.07	8.15	0.08	2.05	2.12	—	9,559	9,559	0.60	0.58	9,748
Total	121	112	741	1.55	1.37	133	134	1.29	33.8	35.0	—	158,355	158,355	10.5	9.85	161,572
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.26	0.21	1.42	< 0.005	< 0.005	0.25	0.25	< 0.005	0.06	0.06	—	278	278	0.02	0.02	284
Apartments Low Rise	8.99	7.21	49.4	0.10	0.09	8.53	8.62	0.08	2.16	2.25	—	9,639	9,639	0.62	0.58	9,844
Strip Mall	12.0	10.7	73.3	0.17	0.14	13.7	13.9	0.13	3.48	3.61	—	15,335	15,335	0.87	0.88	15,643
Industrial Park	1.27	1.13	7.75	0.02	0.01	1.45	1.47	0.01	0.37	0.38	—	1,622	1,622	0.09	0.09	1,655
Total	22.6	19.3	132	0.29	0.25	23.9	24.2	0.23	6.07	6.31	—	26,875	26,875	1.59	1.57	27,427

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	235	235	0.04	< 0.005	237

Apartments	—	—	—	—	—	—	—	—	—	—	—	5,966	5,966	0.97	0.12	6,025
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2,642	2,642	0.43	0.05	2,669
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	4,161	4,161	0.67	0.08	4,203
Total	—	—	—	—	—	—	—	—	—	—	—	13,005	13,005	2.10	0.26	13,133
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	235	235	0.04	< 0.005	237
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5,966	5,966	0.97	0.12	6,025
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2,642	2,642	0.43	0.05	2,669
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	4,161	4,161	0.67	0.08	4,203
Total	—	—	—	—	—	—	—	—	—	—	—	13,005	13,005	2.10	0.26	13,133
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	38.9	38.9	0.01	< 0.005	39.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	988	988	0.16	0.02	997
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	437	437	0.07	0.01	442
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	689	689	0.11	0.01	696
Total	—	—	—	—	—	—	—	—	—	—	—	2,153	2,153	0.35	0.04	2,174

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	563
Apartments Low Rise	0.89	15.2	6.45	0.10	1.23	—	1.23	1.23	—	1.23	—	19,247	19,247	1.70	0.04	19,300
Strip Mall	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,405	1,405	0.12	< 0.005	1,409
Industrial Park	0.19	3.41	2.86	0.02	0.26	—	0.26	0.26	—	0.26	—	4,065	4,065	0.36	0.01	4,076
Total	1.17	20.2	10.5	0.13	1.61	—	1.61	1.61	—	1.61	—	25,278	25,278	2.24	0.05	25,348
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	561	561	0.05	< 0.005	563
Apartments Low Rise	0.89	15.2	6.45	0.10	1.23	—	1.23	1.23	—	1.23	—	19,247	19,247	1.70	0.04	19,300
Strip Mall	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,405	1,405	0.12	< 0.005	1,409
Industrial Park	0.19	3.41	2.86	0.02	0.26	—	0.26	0.26	—	0.26	—	4,065	4,065	0.36	0.01	4,076
Total	1.17	20.2	10.5	0.13	1.61	—	1.61	1.61	—	1.61	—	25,278	25,278	2.24	0.05	25,348
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	< 0.005	0.08	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.9	92.9	0.01	< 0.005	93.2
Apartments Low Rise	0.16	2.77	1.18	0.02	0.22	—	0.22	0.22	—	0.22	—	3,187	3,187	0.28	0.01	3,195
Strip Mall	0.01	0.21	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	233	233	0.02	< 0.005	233

Industrial Park	0.03	0.62	0.52	< 0.005	0.05	—	0.05	0.05	—	0.05	—	673	673	0.06	< 0.005	675
Total	0.21	3.68	1.91	0.02	0.29	—	0.29	0.29	—	0.29	—	4,185	4,185	0.37	0.01	4,197

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	56.2	26.6	508	1.75	72.9	—	72.9	70.3	—	70.3	12,048	23,340	35,389	56.8	0.04	36,821
Consumer Products	67.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	5.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	16.8	1.51	159	0.01	0.12	—	0.12	0.09	—	0.09	—	473	473	0.02	< 0.005	475
Total	146	28.1	667	1.76	73.0	—	73.0	70.4	—	70.4	12,048	23,814	35,862	56.8	0.05	37,296
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	56.2	26.6	508	1.75	72.9	—	72.9	70.3	—	70.3	12,048	23,340	35,389	56.8	0.04	36,821
Consumer Products	67.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	5.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	129	26.6	508	1.75	72.9	—	72.9	70.3	—	70.3	12,048	23,340	35,389	56.8	0.04	36,821
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.30	1.09	20.8	0.07	2.99	—	2.99	2.88	—	2.88	448	868	1,316	2.11	< 0.005	1,370
Consumer Products	12.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.51	0.14	14.3	< 0.005	0.01	—	0.01	0.01	—	0.01	—	38.6	38.6	< 0.005	< 0.005	38.8
Total	17.1	1.22	35.1	0.07	3.00	—	3.00	2.89	—	2.89	448	907	1,355	2.11	< 0.005	1,408

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3.47	16.0	19.4	0.36	0.01	31.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	168	193	360	17.2	0.41	914
Strip Mall	—	—	—	—	—	—	—	—	—	—	63.6	73.0	137	6.53	0.16	346
Industrial Park	—	—	—	—	—	—	—	—	—	—	141	162	302	14.5	0.35	767
Total	—	—	—	—	—	—	—	—	—	—	375	443	819	38.6	0.92	2,058

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3.47	16.0	19.4	0.36	0.01	31.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	168	193	360	17.2	0.41	914
Strip Mall	—	—	—	—	—	—	—	—	—	—	63.6	73.0	137	6.53	0.16	346
Industrial Park	—	—	—	—	—	—	—	—	—	—	141	162	302	14.5	0.35	767
Total	—	—	—	—	—	—	—	—	—	—	375	443	819	38.6	0.92	2,058
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	0.58	2.64	3.22	0.06	< 0.005	5.13
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	27.8	31.9	59.7	2.85	0.07	151
Strip Mall	—	—	—	—	—	—	—	—	—	—	10.5	12.1	22.6	1.08	0.03	57.3
Industrial Park	—	—	—	—	—	—	—	—	—	—	23.3	26.8	50.1	2.39	0.06	127
Total	—	—	—	—	—	—	—	—	—	—	62.2	73.4	136	6.39	0.15	341

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

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

Single Family Housing	—	—	—	—	—	—	—	—	—	—	21.5	0.00	21.5	2.15	0.00	75.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	866	0.00	866	86.5	0.00	3,028
Strip Mall	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	886
Industrial Park	—	—	—	—	—	—	—	—	—	—	212	0.00	212	21.2	0.00	743
Total	—	—	—	—	—	—	—	—	—	—	1,353	0.00	1,353	135	0.00	4,733
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	21.5	0.00	21.5	2.15	0.00	75.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	866	0.00	866	86.5	0.00	3,028
Strip Mall	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	886
Industrial Park	—	—	—	—	—	—	—	—	—	—	212	0.00	212	21.2	0.00	743
Total	—	—	—	—	—	—	—	—	—	—	1,353	0.00	1,353	135	0.00	4,733
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	3.57	0.00	3.57	0.36	0.00	12.5
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	143	0.00	143	14.3	0.00	501
Strip Mall	—	—	—	—	—	—	—	—	—	—	42.0	0.00	42.0	4.19	0.00	147
Industrial Park	—	—	—	—	—	—	—	—	—	—	35.1	0.00	35.1	3.51	0.00	123
Total	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.4	0.00	784

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.63
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.5
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.79
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	82.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	103
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.63
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.5
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.79
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	82.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	103
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.73
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.46
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.0

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	424	424	424	154,724	1,935	1,935	1,935	706,274
Apartments Low Rise	14,696	14,696	14,696	5,363,949	67,082	67,082	67,082	24,485,097
Strip Mall	19,151	19,151	19,151	6,989,988	107,785	107,785	107,785	39,341,474
Industrial Park	2,026	2,026	2,026	739,560	11,404	11,404	11,404	4,162,437

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	23
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	23
Conventional Wood Stoves	0
Catalytic Wood Stoves	2

Non-Catalytic Wood Stoves	2
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	1086
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1086
Conventional Wood Stoves	0
Catalytic Wood Stoves	109
Non-Catalytic Wood Stoves	109
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
4839891.75	1,613,297	1,148,016	382,672	—

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

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

Single Family Housing	420,596	204	0.0330	0.0040	1,751,054
Apartments Low Rise	10,675,153	204	0.0330	0.0040	60,054,664
Strip Mall	4,728,371	204	0.0330	0.0040	4,384,609
Industrial Park	7,446,218	204	0.0330	0.0040	12,684,055

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	1,813,320	8,843,175
Apartments Low Rise	87,522,912	0.00
Strip Mall	33,166,638	0.00
Industrial Park	73,441,531	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	40.0	—
Apartments Low Rise	1,606	—
Strip Mall	470	—
Industrial Park	394	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

8. User Changes to Default Data

Screen	Justification

Operations: Vehicle Data	Trip generation rates based on the estimated trip generation for the existing uses Single-family = 424 ADT/ 45 = 9.42 Multifamily= 14,697 ADT / 2,172 = 6.766 strip mall = 19,152 ADT / 447.759 = 42.77 Industrial uses = 2,025 /317.585 = 6.38

APPENDIX C

PROPOSED PROJECT ENERGY CALCULATIONS

Construction Off-Road Equipment - Phase 1											
Phase	**Off-Road Equipment Type**	**Amount**	**Usage Hour/Day**	**Total Usage Days**	**Total Usage Hours/Equipment**	**Horsepower**	**Load Factor**	**Total Usage Hours/ Equipment**	**Horsepower-Hour**	**Fuel Usage (gallons)**	
Site Preparation	Rubber Tired Dozers	3	8	322.00	7,728.00	367	0.4	7,728.00	1,134,470.40	58,084.88	
	Tractors/Loaders/Backhoes	4	8	322.00	10,304.00	84	0.37	10,304.00	320,248.32	16,396.71	
Grading	Graders	1	8	310.00	2,480.00	148	0.41	2,480.00	150,486.40	7,704.90	
	Excavators	2	8	310.00	4,960.00	36	0.38	4,960.00	67,852.80	3,474.06	
	Tractors/Loaders/Backhoes	2	8	310.00	4,960.00	84	0.37	4,960.00	154,156.80	7,892.83	
	Scrapers	2	8	310.00	4,960.00	423	0.48	4,960.00	1,007,078.40	51,562.41	
	Rubber Tired Dozers	1	8	310.00	2,480.00	367	0.4	2,480.00	364,064.00	18,640.08	
Building Construction	Forklifts	3	8	4,017.00	96,408.00	82	0.2	96,408.00	1,581,091.20	80,951.87	
	Generator Sets	1	8	4,017.00	32,136.00	14	0.74	32,136.00	332,928.96	17,045.96	
	Cranes	1	7	4,017.00	28,119.00	367	0.29	28,119.00	2,992,705.17	153,226.50	
	Welders	1	8	4,017.00	32,136.00	46	0.45	32,136.00	665,215.20	34,059.02	
	Tractors/Loaders/Backhoes	3	7	4,017.00	84,357.00	84	0.37	84,357.00	2,621,815.56	134,236.96	
paving	Pavers	2	8	220.00	3,520.00	81	0.42	3,520.00	119,750.40	6,131.22	
	Paving Equipment	2	8	220.00	3,520.00	89	0.36	3,520.00	112,780.80	5,774.38	
	Rollers	2	8	220.00	3,520.00	36	0.38	3,520.00	48,153.60	2,465.46	
Architectural Coating	Air Compressors	1	6	350.00	2,100.00	37	0.48	2,100.00	37,296.00	1,909.56	
									Total	**599,556.81**	**Diesel**

Construction Truck and Construction Worker Vehicle Fuel Efficiency				
		EMFAC 2025 Outputs		
Vehicle Type	Vehicle Class	Fuel Consumption (1,000 gallons/day)	VMT (miles/ day)	Fuel Efficency (miles/gallon)
Construction Truck	MHDT	36.8	319,339.00	8.7
	HHDT	328.1	2,036,364.00	6.2
	HHDT/MHDT	-	-	7.4
Construction Worker Vehicle	LDA	302.3	7,998,205.00	26.5
	LDT1	32.6	719,035.00	22.0
	LDT2	215.4	4,750,933.00	22.1
	Worker Mix	-	-	24.3

Notes:

[1] For construction trucks assumes 50 percent HHDT and 50 percent MHDT vehicles, consistent with assumptions in CalEEMod for hauling trucks. For construction worker vehicles assumes 50 percent LDA, 25 percent LDT1, and 25 percent LDT2 vehicles, consistent with assumptions in CalEEMod for worker vehicles.

[2] EMFAC2025 was run for Fresno County for the construction year 2026. Data was aggregated over all vehicle model years and speed bins.

[3] The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Construction Vehicle Fuel Use - Diesel Vehicles - Phase 1						
Phase	Trip Type	Total Trips	Trip Length (miles)	Total VMT	Diesel Fuel Effiency (miles/gallon)	Fuel Usage (gallons/year)
Building Construction	Vendor	3,518,892.00	6.9	24,280,354.80	7.4	3,281,129.03
					Total	**3,281,129.03** Diesel

[1] Assumes 100 percent HHDT vehicles for haul trucks and 50 percent HHDT/50 percent MHDT vehicles for MHDT, consistent with assumptions in CalEEMod.

[2] EMFAC2025 was run forFresno County for the construction year 2026. Data was aggregated over all vehicle model years and speed bins.

[3] The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Construction Worker Vehicle Fuel Use - Gasoline Vehicles - Phase 1							
Phase	Total One-Way Trips/Day	Total Days	Total Trips	Trip Length (miles)	Total VMT	Gasoline Fuel Effiency (miles/gallon)	Fuel Usage (gallons/year)
Site Preparation	18	322	11,592.00	7.7	89,258.40	24.3	3,673.19
Grading	20	310	12,400.00	7.7	95,480.00	24.3	3,929.22
Building Construction	2280	4,017	18,317,520.00	7.7	141,044,904.00	24.3	5,804,317.04
Paving	15	220	6,600.00	7.7	50,820.00	24.3	2,091.36
Architectural Coating	456	350	319,200.00	7.7	2,457,840.00	24.3	101,145.68
						Total	**5,915,156.48** Gas

Total Construction Gasoline Usage	**5,915,156.48**
Total Construction Diesel Usage	**3,880,685.84**

Proposed Project Operational Trips			
Single Family Housing			
Vehicle Class	CalEEMod	Total Project Trips	Total Trips per Vehicle Class
LDA	0.47882	424	203.0
LDT1	0.02875	424	12.2
LDT2	0.2445	424	103.7
MDV	0.15034	424	63.7
LHD1	0.02379	424	10.1
LHD2	0.006054	424	2.6
MHD	0.01595	424	6.8
HHD	0.0298	424	12.6
OBUS	0.0004234	424	0.2
UBUS	0.000328	424	0.1
MCY	0.01811	424	7.7
SBUS	0.001456	424	0.6
MH	0.001672	424	0.7

Proposed Project Operational Trips			
Apartments Low Rise			
Vehicle Class	CalEEMod	Total Project	Total Trips per Vehicle Class
LDA	0.47882	18258	8742.3
LDT1	0.02875	18258	524.9
LDT2	0.2445	18258	4464.1
MDV	0.15034	18258	2744.9
LHD1	0.02379	18258	434.4
LHD2	0.006054	18258	110.5
MHD	0.01595	18258	291.2
HHD	0.0298	18258	544.1
OBUS	0.0004234	18258	7.7
UBUS	0.000328	18258	6.0
MCY	0.01811	18258	330.7
SBUS	0.001456	18258	26.6
MH	0.001672	18258	30.5

Proposed Project Operational Trips			
Industrial Park			
Vehicle Class	CalEEMod	Total Project Trips	Total Trips per Vehicle Class
LDA	0.47882	2025	969.6
LDT1	0.02875	2025	58.2
LDT2	0.2445	2025	495.1
MDV	0.15034	2025	304.4
LHD1	0.02379	2025	48.2
LHD2	0.006054	2025	12.3
MHD	0.01595	2025	32.3
HHD	0.0298	2025	60.3
OBUS	0.0004234	2025	0.9
UBUS	0.000328	2025	0.7
MCY	0.01811	2025	36.7
SBUS	0.001456	2025	2.9
MH	0.001672	2025	3.4

Proposed Project Operational Trips			
Strip Mall			
Vehicle Class	CalEEMod	Total Project	Total Trips per Vehicle Class
LDA	0.47882	18405	8812.7
LDT1	0.02875	18405	529.1
LDT2	0.2445	18405	4500.0
MDV	0.15034	18405	2767.0
LHD1	0.02379	18405	437.9
LHD2	0.006054	18405	111.4
MHD	0.01595	18405	293.6
HHD	0.0298	18405	548.5
OBUS	0.0004234	18405	7.8
UBUS	0.000328	18405	6.0
MCY	0.01811	18405	333.3
SBUS	0.001456	18405	26.8
MH	0.001672	18405	30.8

Proposed Project Operational Trips – Fuel Efficiency					
		EMFAC2025 Outputs1			
Fuel	Vehicle Class	Fleet Mix (%)2	Fuel Consumption (1,000 gallons/day)	VMT (miles/day)	Fuel Efficiency3 (miles/gallon)
Gas	LDA	30%	35.7	1,039,341.2	8.8
	LDT1	5%	6.3	157,335.6	1.1
	LDT2	32%	43.8	1,115,616.3	8.2
	MDV	28%	46.8	959,998.9	5.7
	LHD1	2%	7.6	79,131.9	0.2
	MCY	2%	1.9	80,099.8	1.0
	MH	0%	2.6	11,659.0	0.0
	Fleet Mix	–	–	–	25.1
Diesel	LHD2	4%	4.8	73,047.2	0.7
	MHDT	7%	11.8	116,217.0	0.7
	HHDT	89%	192.5	1,456,707.0	6.7
	Fleet Mix	–	–	–	8.1

Notes:

[1] EMFAC2025 was run for Fresno County for the operational year 2046. Data was aggregated over all vehicle model years and speed bins.

[2] Fleet mix is based on assumptions made in CalEEMod for the proposed project.

[3] The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Proposed Project Operational Trips – Fuel Usage						
Land Use	Total Annual VMT2 (miles/year)	Fuel Type	Portion of Fleet3 (%)	VMT by Fuel Type (miles/year)	Fleet Mix Efficiency4 (miles/gallon)	Fuel Usage (gallons/ year)
Single Family Housing	707,024	Gas	95%	670393	25.1	26,706.87
		Diesel	5%	36627	8.1	4,539.44
Apartments Low Rise	30,421,381	Gas	95%	28845231	25.1	1,149,126.43
		Diesel	5%	1575949	8.1	195,319.96
Industrial Park	4,162,437	Gas	95%	3946779	25.1	157,242.18
		Diesel	5%	215631	8.1	26,621.10
Strip Mall	37,810,684	Gas	0%	0	25.1	-
		Diesel	5%	1958745	8.1	242,762.85
					Total Gasoline/year	**1,333,075.48**
					Total Diesel/year	**469,243.34**

Notes:

[1] Calculated for operational year 2046 only. Future years will likely use less fuel due to more efficient cars.

[2] Total VMT is based on project's trip generation and trip lengths.

[3] Fleet distribution is based on EMFAC2025 output and CalEEMod assumptions.

4 Fuel efficiency is based on fuel consumption and VMT data from EMFAC2025 for Fresno County and total VMT

Electricity Usage - Phase 1	
Electricity by Land Use	**kWh/year**
Single Family Housing	420596
Apartments Low Rise	13314452
Indsutrial Park	7446218
Strip Mall	5949296
Total	**27,130,562**

Natural Gas Usage - Phase 1			
Natural Gas by Land Use	**kBTU/year**	**BTU/year**	**therms/year**
Single Family Housing	1,751,054	1,751,054,000	17,514
Apartments Low Rise	74,902,433	74,902,433,000	749,174
Indsutrial Park	12,684,055	12,684,055,000	126,866
Strip Mall	5516770	5,516,770,000	55,179
Total	**94,854,312**	**94,854,312,000**	**948,733**

APPENDIX D

APPROVED SPECIFIC PLAN ENERGY CALCULATIONS

Existing Uses Operational Trips			
Single Family Housing			
Vehicle Class	CalEEMod	Total Project Trips	Total Trips per Vehicle Class
LDA	0.469	424	198.9
LDT1	0.04096	424	17.4
LDT2	0.20747	424	88.0
MDV	0.18185	424	77.1
LHD1	0.03158	424	13.4
LHD2	0.008319	424	3.5
MHD	0.01237	424	5.2
HHD	0.02107	424	8.9
OBUS	0.00061	424	0.3
UBUS	0.0003464	424	0.1
MCY	0.02164	424	9.2
SBUS	0.001832	424	0.8
MH	0.002907	424	1.2

Existing Uses Operational Trips			
Apartments Low Rise			
Vehicle Class	CalEEMod	Total Project	Total Trips per Vehicle Class
LDA	0.469	14697	6892.9
LDT1	0.04096	14697	602.0
LDT2	0.20747	14697	3049.2
MDV	0.18185	14697	2672.6
LHD1	0.03158	14697	464.1
LHD2	0.008319	14697	122.3
MHD	0.01237	14697	181.8
HHD	0.02107	14697	309.7
OBUS	0.00061	14697	9.0
UBUS	0.0003464	14697	5.1
MCY	0.02164	14697	318.0
SBUS	0.001832	14697	26.9
MH	0.002907	14697	42.7

Existing Uses Operational Trips			
Industrial Park			
Vehicle Class	CalEEMod	Total Project Trips	Total Trips per Vehicle Class
LDA	0.469	2025	949.7
LDT1	0.04096	2025	82.9
LDT2	0.20747	2025	420.1
MDV	0.18185	2025	368.2
LHD1	0.03158	2025	63.9
LHD2	0.008319	2025	16.8
MHD	0.01237	2025	25.0
HHD	0.02107	2025	42.7
OBUS	0.00061	2025	1.2
UBUS	0.0003464	2025	0.7
MCY	0.02164	2025	43.8
SBUS	0.001832	2025	3.7
MH	0.002907	2025	5.9

Existing Uses Operational Trips			
Strip Mall			
Vehicle Class	CalEEMod	Total Project	Total Trips per Vehicle Class
LDA	0.469	19152	8982.3
LDT1	0.04096	19152	784.5
LDT2	0.20747	19152	3973.5
MDV	0.18185	19152	3482.8
LHD1	0.03158	19152	604.8
LHD2	0.008319	19152	159.3
MHD	0.01237	19152	236.9
HHD	0.02107	19152	403.5
OBUS	0.00061	19152	11.7
UBUS	0.0003464	19152	6.6
MCY	0.02164	19152	414.4
SBUS	0.001832	19152	35.1
MH	0.002907	19152	55.7

Existing Uses Operational Trips – Fuel Efficiency					
		EMFAC2025 Outputs1			
Fuel	Vehicle Class	Fleet Mix (%)2	Fuel Consumption (1,000 gallons/day)	VMT (miles/day)	Fuel Efficiency3 (miles/gallon)
Gas	LDA	45%	317.2	8,226,922.0	11.8
	LDT1	4%	33.9	735,938.7	0.9
	LDT2	26%	215.6	4,666,928.6	5.6
	MDV	23%	234.7	4,096,424.2	3.9
	LHD1	2%	36.5	346,256.0	0.2
	MCY	0%	1.9	75,931.6	0.2
	MH	0%	2.9	12,765.7	0.0
	Fleet Mix	–	–	–	22.5
Diesel	LHD2	8%	15.4	207,300.0	1.1
	MHDT	13%	36.8	317,050.0	1.1
	HHDT	79%	328.0	2,004,140.0	4.8
	Fleet Mix	–	–	–	7.0

Notes:

[1] EMFAC2025 was run for Fresno County for the operational year 2046. Data was aggregated over all vehicle model years and speed bins.

[2] Fleet mix is based on assumptions made in CalEEMod for the proposed project.

[3] The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Proposed Project Operational Trips – Fuel Usage						
Land Use	Total Annual VMT2 (miles/year)	Fuel Type	Portion of Fleet3 (%)	VMT by Fuel Type (miles/year)	Fleet Mix Efficiency4 (miles/gallon)	Fuel Usage (gallons/ year)
Single Family Housing	706,274	Gas	96%	676748	22.5	30,109.44
		Diesel	4%	29493	7.0	4,197.52
Apartments Low Rise	24,485,097	Gas	96%	23461507	22.5	1,043,833.49
		Diesel	4%	1022473	7.0	145,519.57
Industrial Park	4,162,437	Gas	96%	3988428	22.5	177,263.47
		Diesel	4%	173819	7.0	24,831.32
Strip Mall	39,341,474	Gas	96%	37696819	22.5	1,677,181.35
		Diesel	4%	1642861	7.0	233,813.84
					Total Gasoline/year	**2,928,387.73**
					Total Diesel/year	**408,362.25**

Notes:

[1] Calculated for operational year 2046 only. Future years will likely use less fuel due to more efficient cars.

[2] Total VMT is based on project's trip generation and trip lengths.

[3] Fleet distribution is based on EMFAC2025 output and CalEEMod assumptions.

[4] Fuel efficiency is based on fuel consumption and VMT data from EMFAC2025 for Fresno County and total VMT.

Electricity Usage - Phase 1	
Electricity by Land Use	**kWh/year**
Single Family Housing	420596
Apartments Low Rise	10675153
Indsutrial Park	7446218
Strip Mall	4728371
Total	**23,270,338**

Natural Gas Usage - Phase 1			
Natural Gas by Land Use	**kBTU/year**	**BTU/year**	**therms/year**
Single Family Housing	1,751,054	1,751,054,000	17,514
Apartments Low Rise	60,054,664	60,054,664,000	600,667
Indsutrial Park	12,684,055	12,684,055,000	126,866
Strip Mall	4384609	4,384,609,000	43,855
Total	**78,874,382**	**78,874,382,000**	**788,902**

APPENDIX F

BIOLOGICAL RESOURCE EVALUATION

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BIOLOGICAL RESOURCES EVALUATION

TOWER DISTRICT SPECIFIC PLAN UPDATE

FRESNO, FRESNO COUNTY, CALIFORNIA



LSA

July 2025

DRAFT

BIOLOGICAL RESOURCES EVALUATION

TOWER DISTRICT SPECIFIC PLAN UPDATE

FRESNO, FRESNO COUNTY, CALIFORNIA

Submitted to:

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Project No. 20241643

LSA

July 2025

EXECUTIVE SUMMARY

LSA has prepared this Biological Resources Evaluation (BRE) to examine the potential for special-status biological resources to be impacted by the proposed Tower District Specific Plan Update (Project) in Fresno, Fresno County, California.

The proposed Project would update the existing Specific Plan, adopted in 1991, to bring it into alignment with several amendments and updates to the City of Fresno (City) General Plan and new local, State, and/or federal regulations that have been enacted since adoption. This update would streamline development within the Specific Plan Area by updating the Specific Plan's environmental analysis pursuant to the California Environmental Quality Act (CEQA) requirements and by providing a current regulatory framework and applicable mitigation measures.

The results of a database and literature review and reconnaissance site visit determined that one special-status species could have potential to be impacted by the proposed Project:

- Western mastiff bat (*Eumops perotis californicus*): State Species of Special Concern

Trees throughout the Project area may provide suitable roosting opportunities for western mastiff bats.

All habitats on and adjacent to the Project site have potential to support tree, shrub, and ground nesting bird species protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code.

No sensitive natural communities, jurisdictional aquatic resources, wildlife movement corridors, or nursery sites occur on the Project site. The Project is not located in any federally designated critical habitat or Habitat Conservation Plan boundary. The Project does not conflict with the City's General Plan. The Project would comply with the City's municipal code through acquisition of a tree permit for trees impacted by the Project.

Avoidance and minimization measures, including nest surveys and monitoring, are prescribed, which, when implemented, would reduce Project impacts to biological resources to a less than significant level.

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LIST OF ABBREVIATIONS AND ACRONYMS

°F	degrees Fahrenheit
AMM	Avoidance and Minimization Measure
BIOS	Biogeographic Information and Observation System
BRE	Biological Resources Evaluation
BSA	Biological Study Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
City	City of Fresno
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWHR	California Wildlife Habitat Relationships
EONDX	Element Occurrence Index
FESA	Federal Endangered Species Act
GPS	global positioning system
MBTA	Migratory Bird Treaty Act
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
Project	Tower District Specific Plan Update
SR	State Route
UPRR	Union Pacific Railroad
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 INTRODUCTION

1.1 PROJECT LOCATION

The proposed Tower District Specific Plan Update (Project) covers an approximately 1,869-acre area located immediately north of Downtown Fresno and State Route (SR) 180 and 1 mile east of the SR-99 corridor in Fresno, Fresno County, California (Figure 1-1). The Project area is generally bounded by Shields Avenue to the north, Blackstone Avenue to the east, SR-180 to the south, and Fruit Avenue and Union Pacific Railroad (UPRR) tracks to the west (Figure 1-2).

1.2 PROJECT DESCRIPTION

The proposed Project would update the existing Specific Plan, adopted in 1991, to bring it into alignment with several amendments and updates to the City of Fresno (City) General Plan and new local, State, and/or federal regulations that have been enacted since adoption. This update would streamline development within the Specific Plan Area by updating the Specific Plan's environmental analysis pursuant to the California Environmental Quality Act (CEQA) requirements, and by providing a current regulatory framework and applicable mitigation measures.

1.3 PURPOSE, GOALS, AND OBJECTIVES

The purpose of this Biological Resources Evaluation (BRE) is to identify where potential special-status biological resources may occur within the Project site, determine how those resources may be impacted by the proposed Project, and recommend avoidance, minimization, and mitigation measures to reduce the potential for impact to a less than significant level. This BRE has been prepared to support an analysis of biological conditions as required by CEQA and to support regulatory permit applications, if needed.

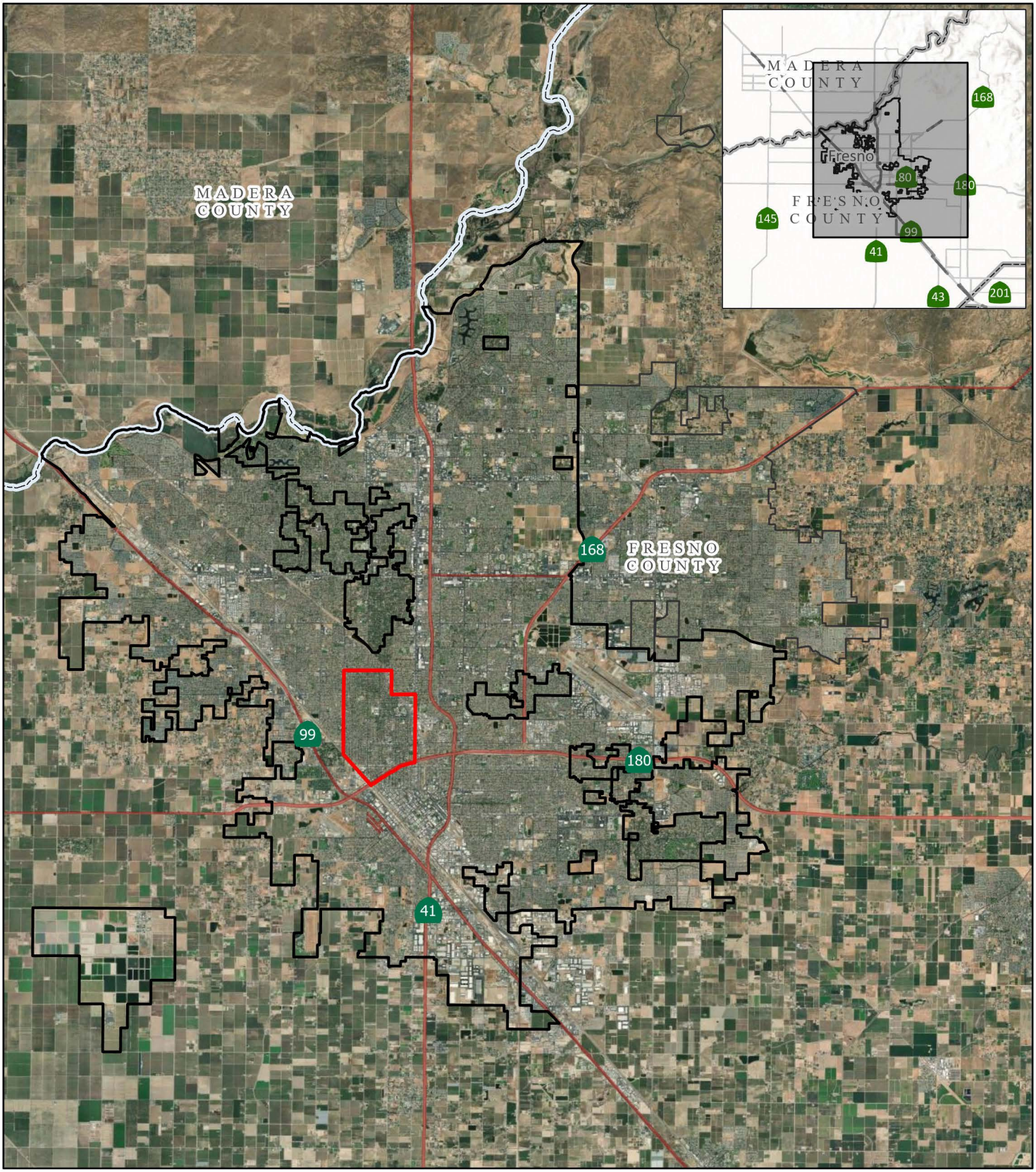

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FIGURE 1-1

Tower District Boundary
County Boundary
City of Fresno
City of Clovis

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SOURCE: Esri World Imagery (2025)

Tower District Specific Plan Update

Regional Location and Local Vicinity

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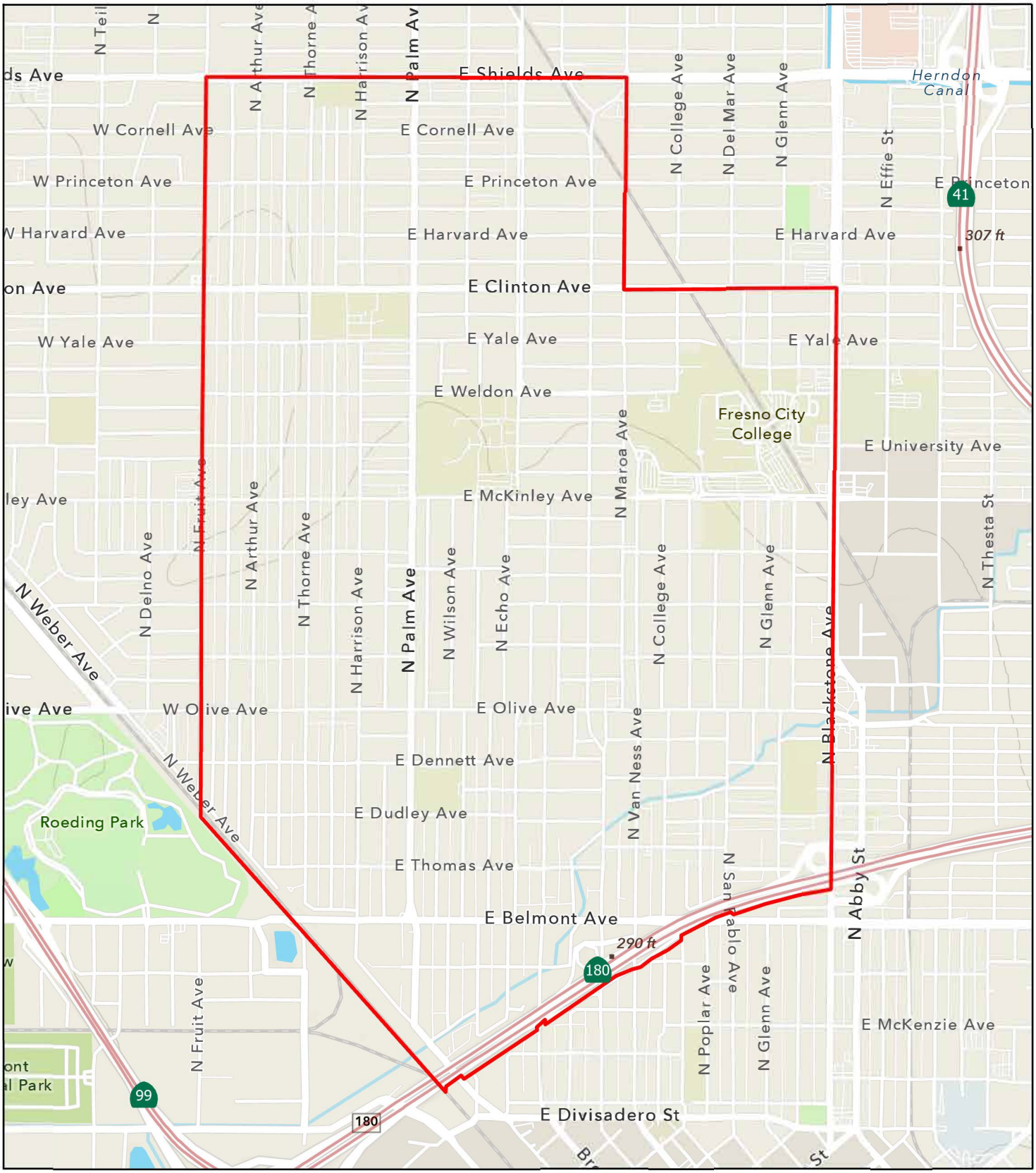

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Tower District Boundary

FIGURE 1-2

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SOURCE: Esri Outdoor Contour Map (2025)

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Tower District Specific Plan Update

Project Location

2.0 METHODS

2.1 DEFINITION OF BIOLOGICAL STUDY AREA

For the purposes of this report, the Biological Study Area (BSA) is a 500-foot buffer surrounding the Project disturbance footprint (Figure 2-1).

2.2 DEFINITION OF SPECIAL-STATUS RESOURCES

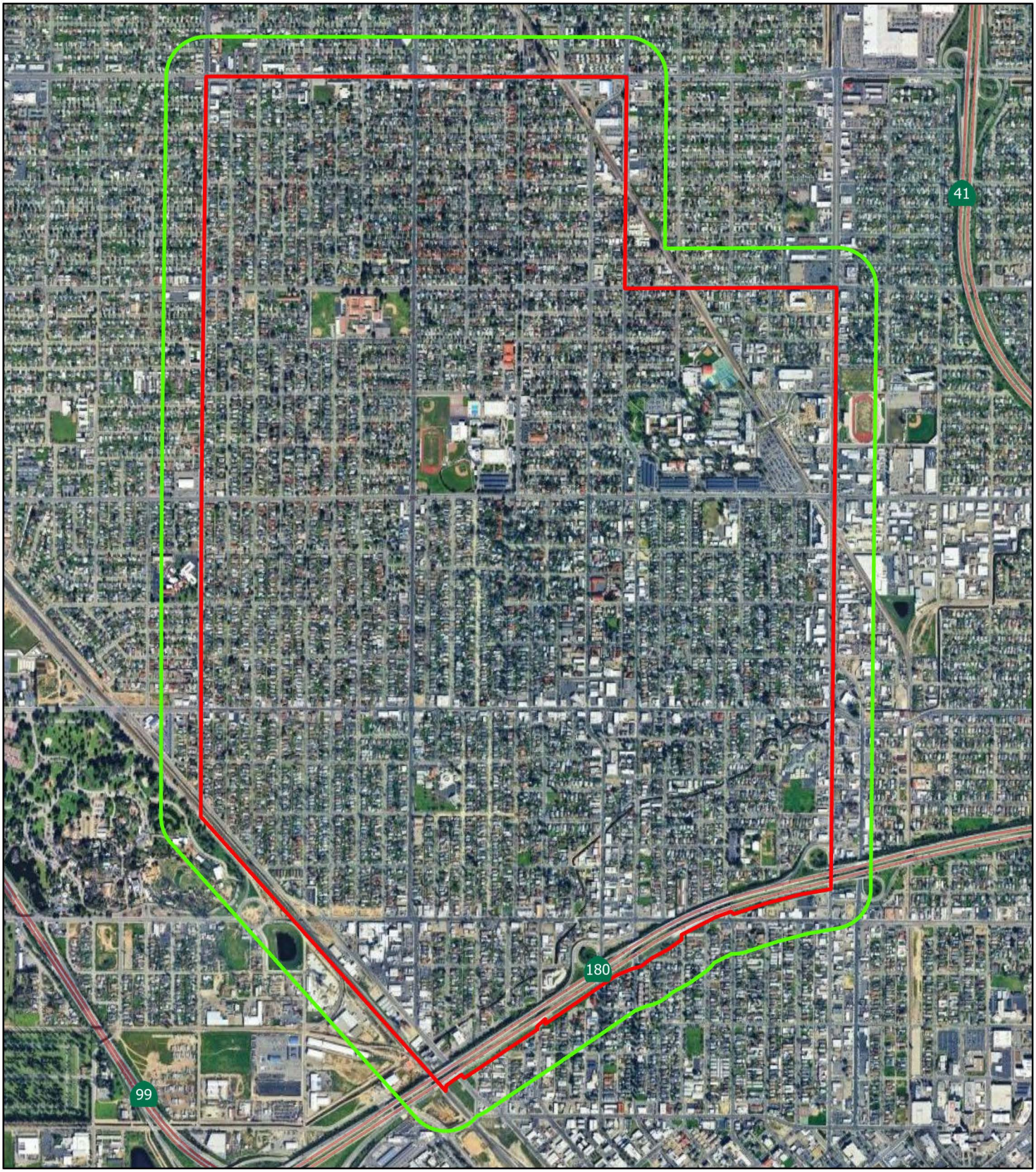
For the purposes of this report, special-status resources include:

- Species listed or proposed to be listed as threatened or endangered or otherwise considered candidates for listing under the Federal Endangered Species Act (FESA);
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA);
- Species designated as Fully Protected or Species of Special Concern by the California Department of Fish and Wildlife (CDFW);
- Plant species with a California Rare Plant Rank (CRPR) of Category 1 or 2;
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance or local policy;
- Sensitive natural communities as defined by the CDFW or local agencies; and
- Aquatic features.

2.3 DATABASE SEARCH AND BACKGROUND REVIEW

The following sources were reviewed for information on special-status biological resources in the Project vicinity:

- CDFW California Natural Diversity Database (CNDDB; CDFW 2025a)
- CDFW Biogeographic Information and Observation System (BIOS; CDFW 2025b)
- CDFW California Wildlife Habitat Relationships (CWHR) System (Mayer and Laudenslayer 1990)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2025)



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Project Boundary

Biological Study Area (500-ft Buffer)

FIGURE 2-1

N

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SOURCE: Google Maps (2025)

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Tower District Specific Plan Update

Biological Study Area

- United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation system (USFWS 2025b)
- USFWS Critical Habitat Mapper (USFWS 2025a)
- USFWS National Wetlands Inventory (NWI; USFWS 2025c)
- United States Geological Survey (USGS) National Hydrography Dataset (NHD; USGS 2025)
- United States Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2025)
- Current and historical aerial imagery (Google LLC 2025)

For each of these data sources, the search was focused on the *Fresno North, California* USGS 7.5-minute quadrangle in which the Project is located, plus the surrounding eight quadrangles. For the CNDDB, a 10-mile search radius was used.

The CNDDB provides element-specific spatial information on individually documented occurrences of special-status species and sensitive natural communities. Some of the information available in the CNDDB is still undergoing review by the CDFW; these records are identified as unprocessed data. The CNPS database provides similar information as the CNDDB, but at a much lower spatial resolution. Much of this information in these databases is obtained opportunistically and is often focused on protected lands or on lands where development has been proposed. Neither database represents a comprehensive survey for special-status resources in the region. As such, the absence of recorded occurrences in these databases at any specific location does not preclude the possibility that a special-status resource could be present. The NWI and Web Soil Survey provide comprehensive data but at a low resolution, requiring confirmation in the field.

The results of the database inquiries were reviewed to develop a list of special-status resources that may be present on and within the vicinity of the Project. This list was then evaluated against the existing conditions observed during the reconnaissance site visit of the BSA to determine which special-status resources have the potential to occur, as well as the potential for impacts to those resources from implementation of the Project.

2.4 FIELD SURVEYS

The environmental setting of the BSA was documented during a reconnaissance site survey on March 21, 2025 (see Table 2.A).

Table 2.A: Field Survey Personnel and Timing

Date	Personnel	Timing	Weather Conditions	Survey Type
3/21/2025	Carie Wingert	1000-1200	Clear, light breeze, upper 60s°F	Reconnaissance

Source: LSA Field Visit (March 2025).
°F = degrees Fahrenheit

The reconnaissance-level site survey of the BSA characterized the existing biological conditions of the Project site and the greater BSA. The site survey consisted of a combination of windshield surveys and pedestrian transects. Adjacent parcels were visually scanned from the Project site and public roads for potential special-status resources. The survey effort resulted in 100 percent visual coverage of the BSA.

All plant and animal species detected were recorded and identified to the lowest taxonomic level necessary to determine rarity. The locations of any special-status species detected were documented using a global positioning system (GPS). All other potential sensitive biological resources (e.g., aquatic habitats) were also recorded.

2.5 POTENTIAL FOR OCCURRENCE ASSESSMENT

Assessments for the potential occurrence of special-status species are based on known ranges, habitat preferences for the species, species occurrence records from the CNDDB and CNPS, species occurrence records from other sites in the vicinity of the survey area, previous reports for the Project site, and the results of surveys of the Project site. The potential for each special-status species to occur in the BSA was evaluated according to the following criteria:

- **No:** Habitat on and adjacent to the site is clearly unsuitable to meet the needs of the species (i.e., foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.

- **Yes:** Conditions within the BSA may, in some way, support a portion of the species' ecology (e.g., foraging, reproduction, movement/migration). Protocol surveys (if conducted) were conducted, but negative results do not exclude the potential for a species to occur.

- **Present:** The species was observed within the BSA or has been recorded (e.g., CNDDB, other reports) in the BSA recently (within the last 5 years).

3.0 REGULATORY SETTING

Regulated or sensitive resources that were studied and analyzed include special-status plant and animal species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement areas, and locally protected resources (e.g., protected trees). Regulatory authority over biological resources is shared by federal, State, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the City of Fresno).

Potential impacts to biological resources were analyzed based on the following list of statutes. Summaries of these statutes are provided in Appendix A.

- CEQA
- FESA
- CESA
- Federal Clean Water Act
- California Fish and Game Code
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- City of Fresno General Plan

4.0 ENVIRONMENTAL SETTING

4.1 PHYSICAL CHARACTERISTICS

4.1.1 Climate

The Project is in an area with a Mediterranean climate of hot summers and mild, wet winters. Average high temperatures range from 55 degrees Fahrenheit (°F) in January to 98°F in July, with daily temperatures exceeding 100°F several days in the summer (Western Regional Climate Center 2025). Average low temperatures range from 37°F in December to 66°F in July. Precipitation occurs primarily as rain, most of which falls from November to April, with an average of 11 inches of rainfall per year. Precipitation may also occur as a dense fog during the winter, known as tule fog. Rain rarely falls during the summer months.

4.1.2 Topography and Land Use

The Project area is generally flat and occupied by a mix of residential, commercial, and light industrial uses and is generally bound by Shields Avenue to the north, Blackstone Avenue to the east, SR-180 to the south, and Fruit Avenue and the UPRR tracks to the west. Nearly every parcel is developed, and the extent of natural habitat is very limited.

4.1.3 Soils

Table 4.A provides the soil map units mapped within the BSA as shown on Figure 4-1.

4.1.4 Hydrology

The Project is located within the Upper Dry watershed (Hydrologic Unit Code 8 18030009). One drainage, Dry Creek Canal, traverses the southern portion of the Project area (Figure 4-2). No other aquatic features are present within the Project area.

4.2 VEGETATION AND OTHER LAND COVER

The BSA is entirely developed and qualifies as Urban under the CWHR (Figure 4-3). Most of the Project area consists of single-family residential use, interspersed with multi-family residential, commercial, institutional, and light industrial use. Institutional developments include Fresno City College, Fresno High School, and several grade school facilities. Commercial development is concentrated along Blackstone Avenue, Belmont Avenue, Olive Avenue, and Van Ness Avenue. Light industrial use is present in the southwestern portion of the Project area, along Palm Avenue and south of Belmont Avenue. Several native and nonnative trees are present throughout the developed habitat but are most dense where residential development dominates. Within the Project site, there are a wide variety of native and nonnative trees and shrubs, including palms (*Washingtonia* sp.), magnolias (*Magnolia* sp.), eucalyptus (*Eucalyptus* sp.), cypress (*Cupressus* sp., *Hesperocyparis* sp.), pines (*Pinus* sp.), sycamores (*Platanus racemosa*), pepper trees (*Schinus* sp.), and more.

Table 4.A: Soil Map Units Within the Biological Study Area

Map Symbol and Name	Description
DhB Delhi loamy sand, 3 to 9 percent slopes	**Distribution:** East side of San Joaquin Valley, Central Valley, intermountain valleys; western southern California **Landform**: Floodplains, alluvial fans, and terraces **Source**: Wind-modified material weathered from granitic rock **Drainage**: Somewhat excessively drained **Permeability**: Rapid **Vegetation**: Annual grasses and forbs with buckwheat and a few shrubs and trees **Uses**: Agriculture and urban development **Hydric Soil**: No
GtA Greenfield sandy loam, 0 to 3 percent slopes	**Distribution:** Interior and coastal valleys of central and southern California; 250 to 500 feet in elevation **Landform**: Alluvial fans **Source**: Alluvium derived from granite **Drainage**: Well drained; slow to medium runoff **Permeability**: Moderately rapid **Natural Vegetation**: Annual grass, forbs, some shrubs, and scattered oak trees **Uses**: Irrigated and dry-farmed agriculture **Hydric Soil**: No
GuA Greenfield sandy loam, moderately deep, 0 to 3 percent slopes	**Distribution:** Interior and coastal valleys of central and southern California; 250 to 500 feet in elevation **Landform**: Alluvial fans and terraces **Source**: Granitic and mixed rock **Drainage**: Well drained; slow to medium runoff **Permeability**: Moderately rapid **Natural Vegetation**: Annual grass, forbs, some shrubs and scattered oak trees **Uses**: Irrigated and dry-farmed agriculture **Hydric Soil**: No
Hc Hanford sandy loam	**Distribution:** Throughout Central Valley; 200 to 500 feet in elevation **Landform**: Floodplains, alluvial fans **Source**: Alluvium derived from granite **Drainage**: Well drained **Permeability**: Moderately rapid; very low runoff **Natural Vegetation**: Annual grasses and herbs **Uses**: Irrigated crops and orchards, dairies, and urban development **Hydric Soil**: No
ScA San Joaquin sandy loam, 0 to 3 percent slopes, MLRA 17	**Distribution:** Eastern side of the Sacramento and San Joaquin Valleys **Landform**: Undulating low terraces **Source**: Mixed but dominantly granitic rock sources **Drainage**: Well and moderately well drained **Permeability**: Very slow permeability; very high runoff **Uses**: Cropland and livestock grazing **Hydric Soil**: May be hydric in fan remnants and depressions that are frequently ponded for long or very long duration during the growing season
TzbA Tujunga loamy sand, 0 to 3 percent slopes	**Distribution:** Central and southern coastal plains and valleys **Landform**: Alluvial fans and floodplains, including urban areas **Source**: Granitic sources **Drainage**: Somewhat excessively drained **Permeability**: Rapid; very low runoff **Vegetation**: Shrubs, annual grasses, and forbs **Uses**: Grazing, orchard, urban **Hydric Soil**: May be hydric in floodplains that are frequently flooded for long or very long duration during the growing season

Source: Web Soil Survey (NRCS 2025).
MLRA = Major Land Resource Area

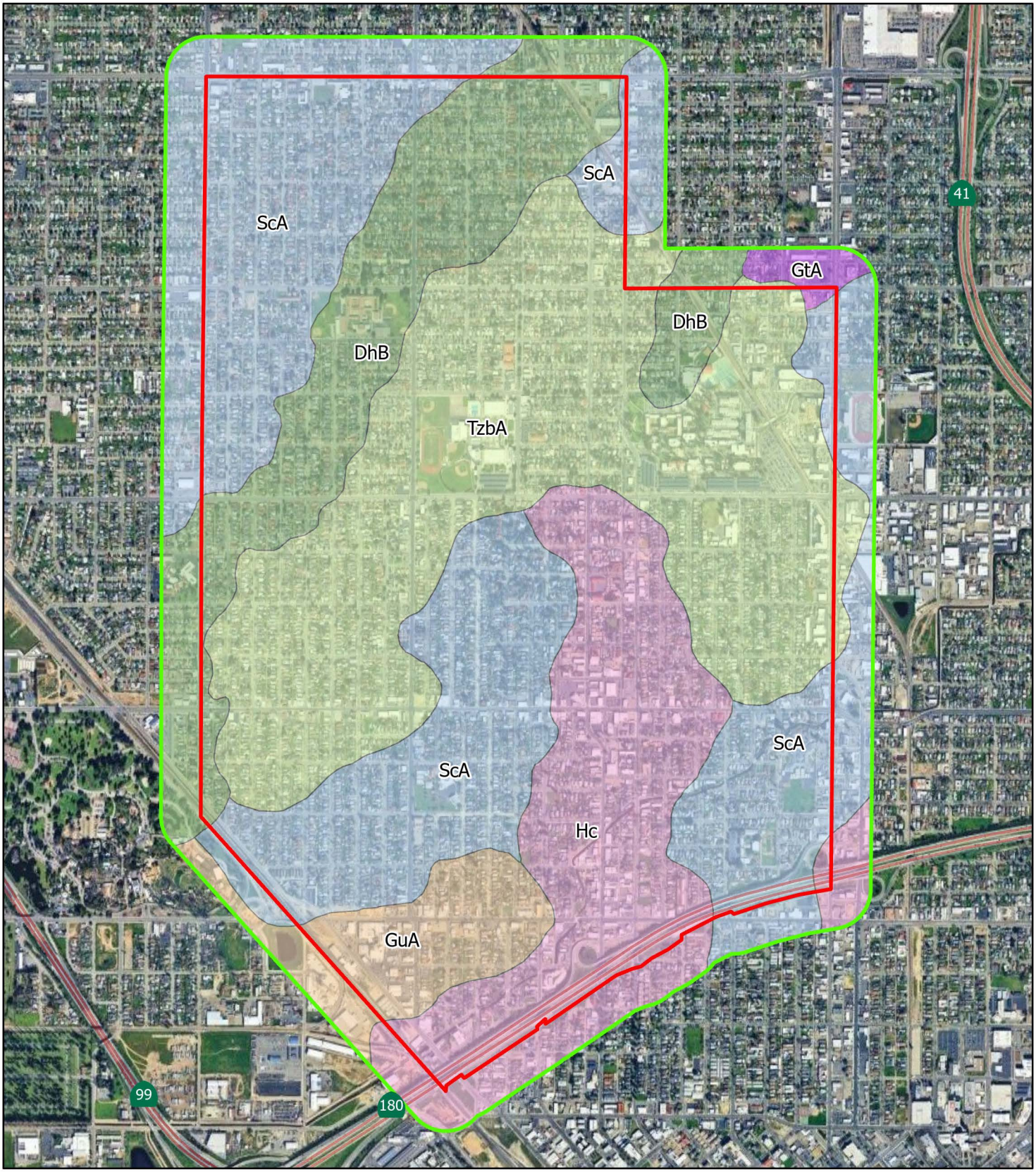

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FIGURE 4-1

Project Boundary

Biological Study Area (500-ft Buffer)

Soils

DhB - Delhi loamy sand, 3 to 9 percent slopes

GtA - Greenfield sandy loam, 0 to 3 percent slopes

GuA - Greenfield sandy loam, moderately deep, 0 to 3 percent slopes

Hc - Hanford sandy loam

ScA - San Joaquin sandy loam, 0 to 3 percent slopes, MLRA 17

TzbA - Tujunga loamy sand, 0 to 3 percent slopes

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Tower District Specific Plan Update

Soils Mapped within the BSA

SOURCE: Google Maps (2025); SSURGO (2025)

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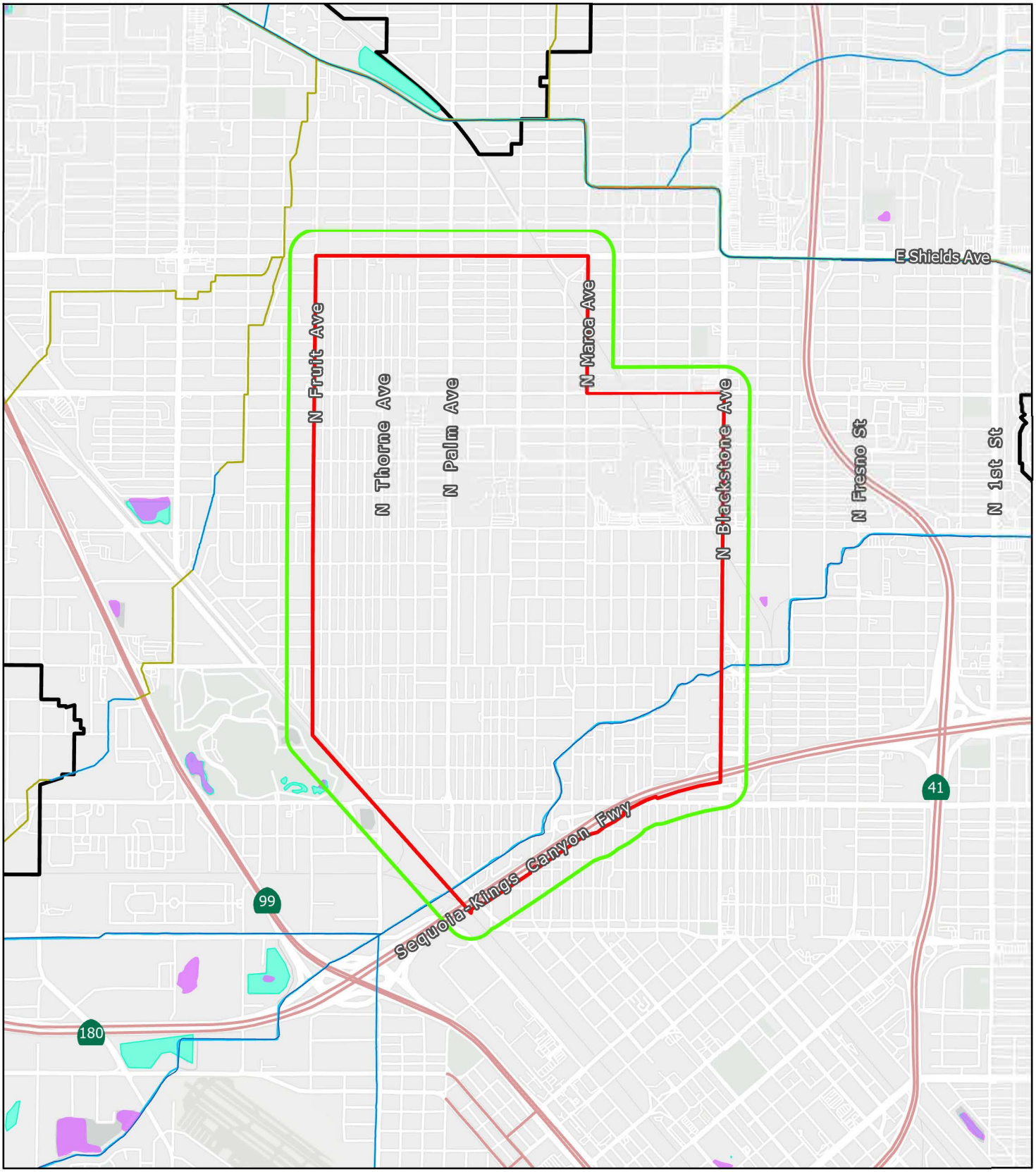

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FIGURE 4-2

Project Boundary

Biological Study Area (500-ft Buffer)

Fresno City Limits

Wetlands

Marsh, Swamp, Bog, Prairie

River

Stream type classification

Artificial Path

Canal Ditch, Drainageway, or Connector

Pipeline

Waterbodies and Areas

Lakes, Ponds, Reservoirs, Estuaries, and other Waterbodies

N

0 1312.5 2625

FEET

SOURCE: Google Maps (2025)

Tower District Specific Plan Update

NWI and NHD Records of Aquatic Resources

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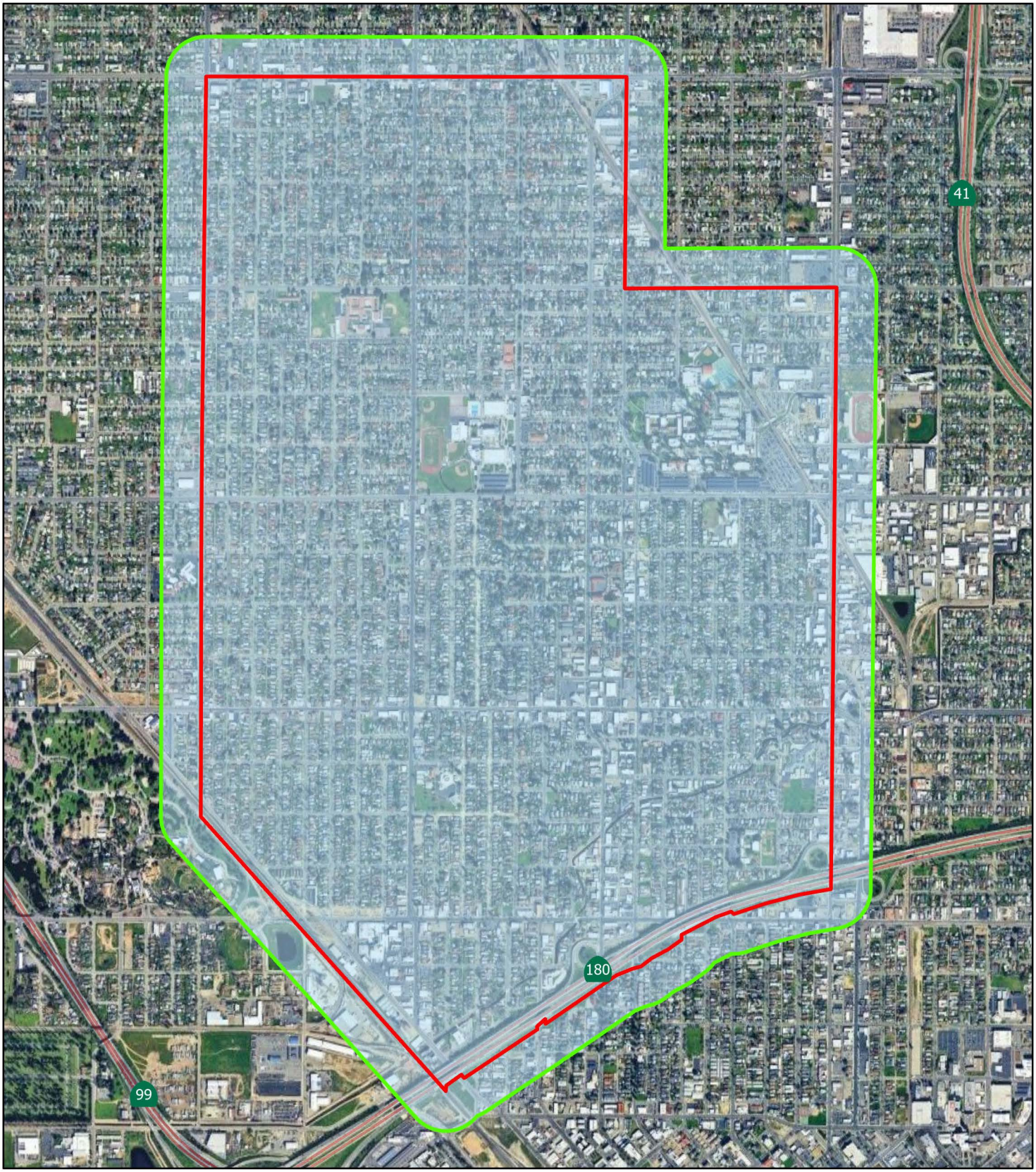

LSA

Project Boundary

Biological Study Area (500-ft Buffer)

Vegetation Community

Developed

FIGURE 4-3

0 850 1700

FEET

SOURCE: Google Maps (2025)

Tower District Specific Plan Update

Vegetation Communities within the BSA

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4.3 GENERAL WILDLIFE OBSERVATIONS

Observed wildlife were typical of the landscape and time of year and included California ground squirrel (*Otospermophilus beecheyi*), northern mockingbird (*Mimus polyglottos*), scrub jays (*Aphelocoma californica*), rock doves (*Columba livia*), mourning doves (*Zenaida macroura*), European starlings (*Sturnus vulgaris*), and numerous small songbirds (e.g., house sparrows [*Passer domesticus*] and house finches [*Haemorrhous mexicanus*]).

5.0 IMPACT EVALUATION AND RECOMMENDED AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

This section describes the potential biological resources impacts associated with development of the Project based on the thresholds of significance listed in the *State CEQA Guidelines* Appendix G, Environmental Checklist, which are listed throughout, along with consideration for other federal and State laws.

5.1 SPECIAL-STATUS SPECIES

The proposed Project would have a significant effect on biological resources if it would:

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

Table 5.A presents the list of special-status plant and animal species determined to have potential to occur on site and identifies whether the Project may affect the species and threaten the viability of the species population. Each species is further discussed in the subsections below. The complete list of species evaluated for this Project is included in Appendix C.

Table 5.A: Special-Status Species with Potential to Occur On Site

Scientific Name / Common Name	Status	Potentially Affected by Project	Viability Threat?
Mammals			
Eumops perotis californicus western mastiff bat	US: — CA: SSC	Yes	No

Source: Compiled by LSA (2025)
SSC = California Species of Special Concern

5.1.1 Project Impacts to Special-Status Plant Species

The literature review identified eight special-status plant species known or with potential to occur in the vicinity of the Project (Appendix C); however, none of the eight has the potential to occur on site due to the highly disturbed nature of the Project site and the lack of suitable habitat conditions. The Project would have no impact on special-status plant species.

5.1.2 Project Impacts to Special-Status Animal Species

The literature review identified 22 special-status animal species known or with potential to occur in the vicinity of the Project (Appendix C), of which only 1 species was determined to have a potential to occur on site (Table 5.A).

5.1.2.1 Western Mastiff Bat

Eumops perotis californicus
Status: State Species of Special Concern

An uncommon resident in southeastern San Joaquin Valley and Coast Ranges, the western mastiff bat occurs in a wide variety of habitats including conifer and deciduous woodlands, coastal scrub, annual and perennial grassland, desert scrub, chaparral, palm oases, and urban habitats. It roosts in crevices on cliff faces, high buildings, trees, and tunnels that include vertical faces to drop off to take flight. Nursery roosts are typically found in in tight rock crevices or buildings. It rarely uses night roosts.

The nearest occurrence was recorded in 1991 in downtown Fresno and is presumed extant (Element Occurrence Index [EONDX] 66374; CDFW 2025a). Trees throughout the BSA could be suitable for roosting, and the BSA contains suitable foraging habitat for western mastiff bat. Direct impacts could occur if the species is roosting in these trees when the Project is constructed. Avoidance and minimization measures are prescribed below.

5.1.2.2 Nesting Birds

The BSA contains suitable habitat that could support a variety of ground- and tree-nesting bird species protected under the MBTA and the California Fish and Game Code. Impacts to active nests could occur from direct disturbance of active nests during construction of the Project and from noise and vibration caused by construction activities; however, construction of the Project is not expected to cause a significant reduction in nesting habitat in the area.

5.1.3 Avoidance, Minimization, and Mitigation Measures

The following Avoidance and Minimization Measures (AMMs) are recommended to avoid, minimize, and/or mitigate impacts to special-status animal species.

AMM-1 Avoidance and Minimization Measures for Bats

1. A qualified biologist with experience in assessing trees for bat roosts will survey all trees to be removed during construction for suitability as bat roosts. If a tree is deemed suitable, the qualified biologist will conduct a night emergence survey of the suitable roost tree 1 to 2 nights prior to tree removal using night vision and/or infrared-sensitive camera equipment and bioacoustic recording equipment. If surveys are negative, trees should be removed immediately.

2. If night emergent surveys are positive, trees should be removed using a two-step process for 2 consecutive days and should be monitored by a qualified biologist. On the first day, small branches and small limbs that do not contain potential roost habitat (e.g., cavities, crevices, exfoliating bark) will be removed using chainsaws. On the second day, the remainder of the tree will be removed. The disturbance caused by chainsaw noise and vibration, coupled with the physical alteration of the tree will cause colonial bat species to abandon the roost tree after nightly emergence for foraging. Removing the tree the next day prevents re-habituation and re-occupation of the altered tree.

3. Any trees suitable as bat roost will be removed during one of the following periods to avoid harm to young or hibernating bats:

    a. Between approximately March 1 and April 15 (or after evening temperatures rise above 45 degrees Fahrenheit [°F], and less than 0.5 inch of rainfall in 24 hours occurs)

    b. After maternity season and prior to winter torpor or hibernation, September 1 through about October 15 (or before evening temperatures fall below 45°F, and prior to greater than 0.5 inch of rainfall within 24 hours)

AMM-2 **Pre-activity Nesting Bird Surveys.** If Project activities must occur during the nesting season (February 15 to August 31), pre-activity nesting bird surveys will be conducted no more than 7 days prior to the start of construction at the construction site, and a 250-foot buffer for songbirds and a 500-foot buffer for raptors (other than Swainson's hawk [*Buteo swainsoni*]) will be installed. If no active nests are found, no further action is required; however, note that nests may become active at any time throughout the summer, including when construction activities are occurring. If active nests are found during the survey or at any time during Project construction, an avoidance buffer ranging from 50 feet to 350 feet will be required, as determined by a qualified biologist. The avoidance buffer will remain in place until the biologist has determined that the young are no longer reliant on the nest. Work may occur within the avoidance buffer under the approval and guidance of the biologist. The biologist will have the ability to stop construction if nesting adults show signs of distress.

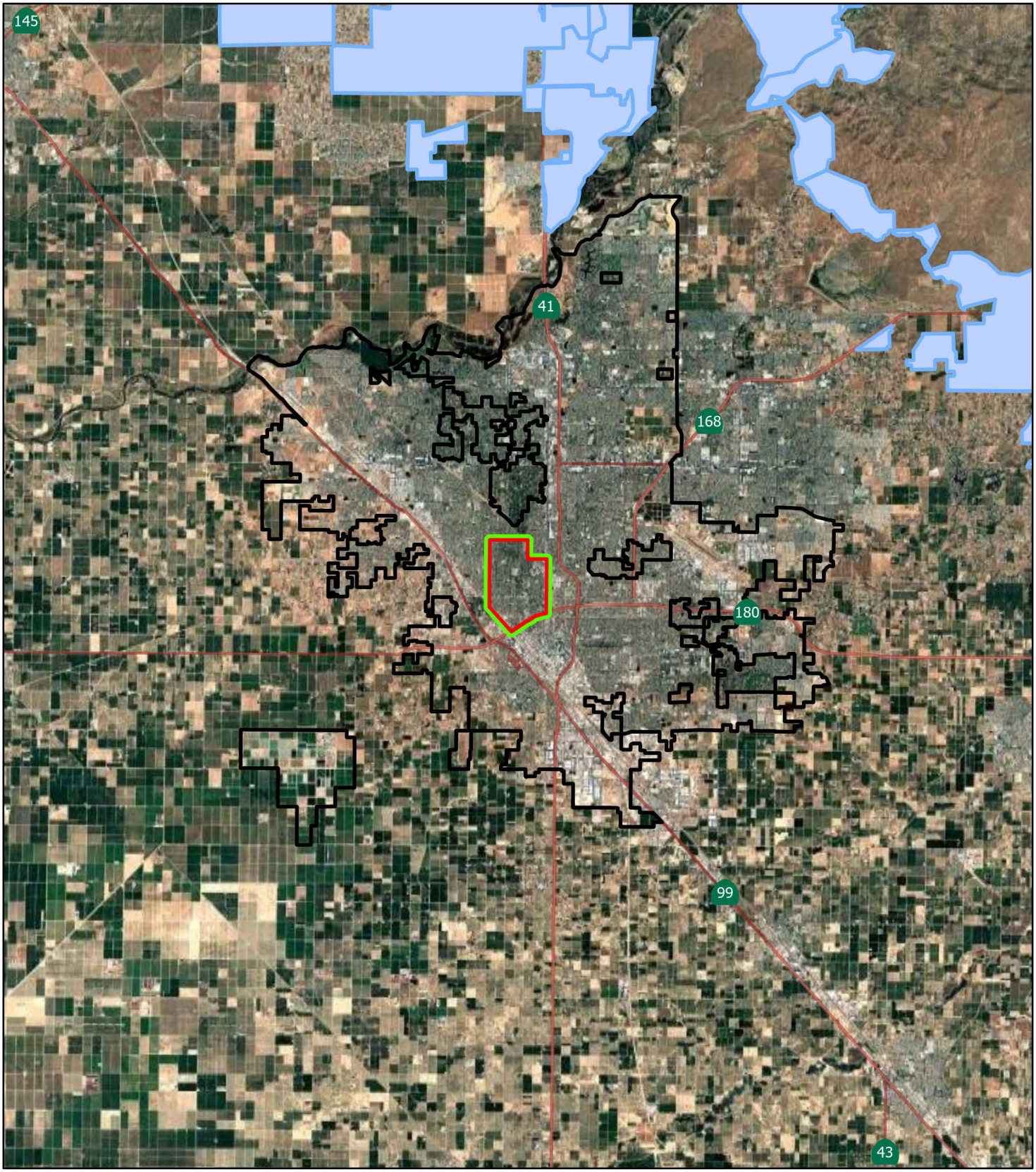
Implementation of the measures above would reduce Project impacts to special-status animal species to a less than significant level.

5.2 SENSITIVE NATURAL COMMUNITIES AND CRITICAL HABITAT

The proposed Project would have a significant effect on biological resources if it would:

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

The database search and literature review did not identify special-status plant communities in the vicinity of the Project. No critical habitat intersects the BSA (Figure 5-1). Therefore, no impacts to sensitive natural communities would occur, and no measures are required.



LSA

FIGURE 5-1

SOURCE: Google Maps (2025)

Tower District Specific Plan Update

Mapped Critical Habitat in the Project Vicinity

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5.3 JURISDICTIONAL AQUATIC RESOURCES

The proposed Project would have a significant effect on biological resources if it would:

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.

A single drainage, Dry Creek Canal, is present in the southern portion of the Project area. This canal is owned and managed by the Fresno Metropolitan Flood Control District. It would not be affected by the Project. No other aquatic features are present, and no measures are required.

5.4 WILDLIFE MOVEMENT

The proposed Project would have a significant effect on biological resources if it would:

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

Wildlife movement corridors, also referred to as dispersal corridors or landscape linkages, are generally defined as linear features along which animals can travel from one habitat or resource area to another. Wildlife movement corridors can be large tracts of land that connect regionally important habitats that support wildlife in general, such as stop-over habitat that supports migrating birds or large, contiguous natural habitats that support animals with very large home ranges (e.g., coyotes [*Canis latrans*], mule deer [*Odocoileus hemionus californicus*]). They can also be small-scale movement corridors (e.g., riparian zones) that provide connectivity and cover to support movement at a local scale.

The Project does not intersect an identified wildlife movement corridor of regional or local importance, nor does it support an important wildlife nursery site. The highly disturbed nature of the Project site, plus the dense urban developed area surrounding it, would discourage wildlife movement. No impacts to wildlife movement or nursery sites would occur due to implementation of the Project, and no measures are required.

5.5 LOCAL POLICIES AND ORDINANCES

The proposed Project would have a significant effect on biological resources if it would:

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

The Project falls within the City's General Plan area, which includes a variety of goals, objectives, and policies aimed at the preservation of natural biological resources. The City municipal code includes tree protection and planting requirements for street trees and all trees on private property. This includes acquiring a permit to remove trees, planting tree species from the City's approved tree list, and protection of designated special or heritage trees. As a City project, the Tower District Specific

Plan Update would comply with the City's municipal code. No conflicts would occur, and no measures are required.

5.6 ADOPTED OR APPROVED PLANS

The proposed Project would have a significant effect on biological resources if it would:

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

The Project is not located within the boundaries of applicable adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other habitat conservation plan. A habitat conservation plan is in effect for Pacific Gas and Electric (PG&E) operations and maintenance activities and covers the location of the Project site but applies only to PG&E activities and is not relevant to the proposed Project (ICF 2020). Development of the Project would not conflict with any habitat conservation plan, and no measures are required.

6.0 LIMITATIONS, ASSUMPTIONS, AND USER RELIANCE

This evaluation has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, and specified historical and literature sources. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present and, therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and would not be discovered in the future within the site. For example, mobile animal species could occupy the site on a transient basis or re-establish populations in the future. No other guarantees or warranties, expressed or implied, are provided.

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APPENDIX A

REGULATORY SETTING

A.1 REGULATORY SETTING

A.1.1 Federal Laws and Regulations

A.1.1.1 Federal Endangered Species Act of 1973 (USC Title 16. Sections 1531–1543)

The federal Endangered Species Act (FESA) and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. The FESA defines species as threatened or endangered and provides regulatory protection for listed species. The FESA provides a program for the conservation and recovery of threatened and endangered species as well as the protection of designated critical habitat that United States Fish and Wildlife Service (USFWS) determines is required for the survival and recovery of listed species. The USFWS and National Marine Fisheries Service (NMFS) share responsibilities for administering the FESA.

Section 9 of FESA prohibits the "take" of species listed by the USFWS as threatened or endangered. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. As defined by FESA, taking means "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct." The definition of "harm" includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. "Harass" is defined as actions that create the likelihood of injury to listed species by disrupting normal behavioral patterns related to breeding, feeding, and shelter significantly.

Section 7 of the FESA requires federal agencies, in consultation with and assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction of adverse modification of critical habitat for these species. Regulations governing interagency cooperation under Section 7 are found in California Code of Regulations (CCR) Title 50, Part 402. If an activity could result in "take" of a listed species as an incident of an otherwise lawful activity, then a biological opinion can be issued with an incidental take statement that exempts the activity from FESA's take prohibitions.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found at Code of Federal Regulations (CFR) Title 50, Sections 13 and 17 for species under the jurisdiction of USFWS and CFR, Title 50, Sections 217, 220, and 222 for species under the jurisdiction of NMFS. Section 10 would apply to the Project if take of a species (as defined in Section 9) were determined to occur.

Section 4(a)(3) and (b)(2) of the FESA requires the designation of critical habitat to the maximum extent possible and prudent based on the best available scientific data and after considering the economic impacts of any designations. Critical habitat is defined in section 3(5)(A) of the FESA: (1) areas within the geographic range of a species that are occupied by individuals of that species and contain the primary constituent elements (physical and biological features) essential to the conservation of the species, thus warranting special management consideration or protection; and (2) areas outside of the geographic range of a species at the time of listing but that are considered essential to the conservation of the species.

A.1.1.2 Migratory Bird Treaty Act (USC, Title 16, Sections 703 - 711)

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, is the result of a series of treaties that the United State has with Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. The act provides that it shall be unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird" (United States Code [USC] Title 16, Section 703). The MBTA currently includes several hundred species and includes all birds native to the United States.

A.1.1.3 Bald and Golden Eagle Protection Act of 1940 (USC, Title 16, Section 668)

The Bald and Golden Eagle Protection Act of 1940 protects bald eagles (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of these species and established civil penalties for violation of this act. Take of bald and golden eagles includes to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." To disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially inferring with normal breeding, feeding, or sheltering behavior. (Federal Register [FR], volume 72, page 31132; 50 CFR 22.3).

The Bald and Golden Eagle Protection Act was amended in 2022 to allow USFWS to issue permission for take of bald and golden eagles under specific circumstances as outlined in 50 CFR 22 Subpart C. Take permits may be issued where "the take is compatible with the preservation of the bald eagle and the golden eagle; is necessary to protect an interest in a particular locality; is associated with, but not the purpose of, the activity; and cannot practicably be avoided" (50 CFR 22.80).

A.1.1.4 Federal Clean Water Act (USC, Title 33, Sections 1521 - 1376)

The Federal Clean Water Act provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Section 404 establishes a permit program administered by the United States Army Corps of Engineers (USACE) that regulates the discharge of the dredged or fill material into waters of the United States, including wetlands. The USACE implementing regulations are found in CFR, Title 33, Sections 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the United States Environmental Protection Agency (USEPA) in

conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Section 401 requires that a project applicant that is pursuing a federal license or permit allowing a discharge to waters of the United States to obtain State Certification of Water Quality, thereby ensuring that the discharge will comply with provisions of the Clean Water Act. The State Water Resources Control Board administers the certification program in California, primarily through its regional boards. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States.

Under Section 10 of the River and Harbors Act, the USACE regulates the construction of any structure in or over any navigable water of the United States. Navigable waters are defined as "those waters of the U.S. that are subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce."

A.1.2 Applicable State Laws and Regulations

A.1.2.1 California Environmental Quality Act (PRC Sections 21000–21178 and Title 14 CCR, Section 753, and Chapter 3, Sections 15000–15387)

The California Environmental Quality Act (CEQA) is California's broadest environmental law. CEQA helps guide the issuance of permits and approval of projects. Courts have interpreted CEQA to afford the fullest protection of the environment within the reasonable scope of the statutes. CEQA applies to all discretionary projects proposed to be conducted or approved by a State, County, or City agency, as well as private projects requiring discretionary government approval.

The purpose of CEQA is to disclose to the public the significant environmental effects of a proposed discretionary project; prevent or minimize damage to the environment through development of project alternatives, mitigation measures, and mitigation monitoring; disclose to the public the agency decision making process to approve discretionary projects; enhance public participation in the environmental review process; and improve interagency coordination.

State CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or State list of protected species nonetheless may be considered rare or endangered for purposes of CEQA if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals.

A.1.2.2 California Endangered Species Act (California Fish and Game Code Section 2050 et seq.)

The California Endangered Species Act (CESA) establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would result in take of a species listed under the CESA, a project

proponent would need to obtain a take permit under Section 2081(b). Alternatively, the California Department of Fish and Wildlife (CDFW) has the option of issuing a Consistency Determination (Section 2080.1) for projects that would affect a species listed under both the CESA and the FESA, as long as compliance with the FESA would satisfy the "fully mitigate" standard of CESA, and other applicable conditions.

A.1.2.3 Porter-Cologne Water Quality Control Act

"Waters of the state" are broadly defined by the Porter-Cologne Water Quality Control Act (Section 1305(e)) as "any surface water or groundwater, including saline waters, within the boundaries of the state." Under this definition, isolated wetlands that may not be subject to regulations under federal law are waters of the State.

The California Water Code defines "waters of the state" to include any surface water or groundwater including saline waters, within the boundaries of the State.

On April 2, 2019, the State Water Resources Control Board adopted its State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (revised April 6, 2021), herein referred to as Procedures, in which it defined wetlands as follows:

> An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes, or the area lacks vegetation.
>
> All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state.

All waters of the United States, including those that meet the current and any historic definition, are also considered waters of the State (CCR 23 3831 (w)). Therefore, waters of the State include features that have been determined by the USEPA or the USACE to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report verified by the USACE upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S." under the federal Clean Water Act.

The State's definition of a wetland deviates from the USACE procedures in that a lack of vegetation does not disqualify a feature from identification as a wetland waters of the state, otherwise referred to as non-federal waters of the State.

The State is further required comply with Executive Order W-59-93 published August 23, 1993, which states that the "Water Boards' regulation of dredge and fill activities must ensure 'no net loss' and long-term net gain in the quantity, quality, and permanence of wetlands acreages and values…"

A.1.2.4 Various Sections of the California State and Fish and Game Code

Section 460 and Sections 4000-4003

Chapter 5 of the California Fish and Game Code describes regulations concerning the take of furbearing mammals, including defining methods of take, seasons of take, bag and possession limits, and areas of the State where take is allowed. Section 4000-4003 defines furbearing mammals, and the issuance of permits by the Department. Sections 460 and 4000 identifies fisher (*Pekania pennanti*), marten (*Martes* sp.), river otter (*Lontra canadensis*), desert kit fox (*Vulpes macrotis*), and red fox (*Vulpes vulpes*) as furbearing mammals, and Section 460 prohibits take of these species at any time. This section of the California Fish and Game Code has historically been interpreted to apply to restriction on furbearer trapping permit but has recently been expanded by CDFW to apply to any forms of take and treated as if these species were listed under CESA.

Sections 1600 through 1616

The CDFW regulates all activities (e.g., construction, discharge, dredge, diversion) within rivers, streams, and lakes, and associated riparian vegetation, under California Fish and Game Code Section 1600 et seq. This includes all such features on public and private lands throughout California. The regulatory limits of their jurisdiction are generally considered to include all area within the bed, bank, and channel of a river, stream, or lake, plus the outer extent of riparian vegetation immediately adjacent to these aquatic features. Recently the CDFW has asserted jurisdiction as far out as limits of the 100-year flood plain around rivers, streams, and lakes. This also includes man-made and/or channelized streams located where natural streams historically occurred, or that are connected to natural streams. Isolated wetlands that are not located within the jurisdictional limits described here are not regulated by the CDFW.

Sections 3511, 4700, 5050, and 5515

The protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species. CDFW is unable to authorize incidental take of fully protected species, except as allowed for in an approved Natural Communities Conservation Plan, or through direct legislative action.

Sections 1900 through 1913 - Native Plant Protection Act

California's Native Plant Protection Act (NPPA) requires all State agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provision of the NPPA prohibit that taking of listed plants from the wild and require notification of CDFW at least ten days in advance of any change in land use. This allows CDFW to salvage listed plant species that otherwise would be destroyed. A project proponent is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

A.1.3 Local and Regional Laws, Regulations, and Policies

A.1.3.1 City of Fresno General Plan

Table A.1 highlights the specific policies in the City's General Plan Open Space and Conservation Element (City of Fresno 2014) related to biological resources that are applicable to the Project site.

Table A.1: Chapter 5 – Parks, Open Space, and Schools

5.5: Open Space and Biological Resources	
Objective	
POSS-5	Provide for long-term preservation, enhancement, and enjoyment of plant, wildlife, and aquatic habitat.
Implementing Policies	
POSS-5-a	**Habitat Area Acquisition**. Support federal, State, and local programs to acquire significant habitat areas for permanent protection and/or conjunctive educational and recreational use.
POSS-5-b	**Habitat Conservation Plans**. Participate in cooperative, multijurisdictional approaches for area-wide habitat conservation plans to preserve and protect rare, threatened, and endangered species.
POSS-5-c	**Buffers for Natural Areas.** Require development Projects, where appropriate and warranted, to incorporate natural features (such as ponds, hedgerows, and wooded strips) to serve as buffers for adjacent natural areas with high ecological value.
POSS-5-d	**Guidelines for Habitat Conservation.** Establish guidelines for habitat conservation and mitigation programs, including: ● Protocols for the evaluation of a site's environmental setting and proposed design and operating parameters of proposed mitigation measures. ● Methodology for the analysis depiction of land to be acquired or set aside for mitigation activities. ● Parameters for specification of the types and sources of plant material used for any re-vegetation, irrigation requirements, and post-planting maintenance and other operational measures to ensure successful mitigation. ● Monitoring at an appropriate frequency by qualified personnel and reporting of data collected to permitting agencies.
POSS-5-e	Pursue development of conjunctive habitat and recreational trail uses in flood control and drainage projects. *Commentary: Establishment of wildlife and aquatic habitat is unsuitable along primary conveyance systems to existing and future water treatment facilities. Certain waterways may be excluded from habitat development for this reason.*
POSS-5-f	**Regional Mitigation and Habitat Restoration.** Coordinate habitat restoration programs with responsible agencies to take advantage of opportunities for a coordinated regional mitigation program.
POSS-5-g	**Assistance in Valley Arboretum Master Planning.** Assist community organizations that have raised grant funds to pursue the preparation of a Valley Arboretum Master Plan and Implementation Program, including funding, to be coordinated with community groups, as well as related plans and policies for established neighborhoods and other areas with park deficiencies. *Commentary: It is anticipated that when completed, the Valley Arboretum Master Plan will be presented to the City Council for consideration as an as an amendment to the General Plan. See discussion at the end of this Element, Section 5.4 Valley Arboretum.*

Source: Fresno General Plan Open Space and Conservation Element (City of Fresno 2014).

A.1.3.2 City of Fresno Municipal Code

The City of Fresno Municipal Code includes policies aimed at the preservation of trees throughout the city (Section 13-305) and requires a permit for tree removal or maintenance on private property. Per Section 13-306, the Department of Public Works maintains a list of trees approved for planting within the city limits, including both native and horticultural species.

APPENDIX B

REPRESENTATIVE SITE PHOTOS



Photo 1. Tall trees along a railroad corridor from Shields Avenue.



Photo 2. Characteristic photo of residential neighborhoods from N. Weber Avenue and N. Fruit Avenue.



Photo 3. Example of undeveloped back alleys from N. Weber Avenue.



Photo 4. One of a handful of undeveloped lots at N. Van Ness Avenue and E. Home Avenue.

APPENDIX C

SPECIAL-STATUS SPECIES EVALUATION

Table C.1: Special-Status Species in the Vicinity of the Project

Scientific Name / Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Plants				
Castilleja campestris var. *succulenta* succulent owl's clover	US: T CA: — CRPR: 1B.2	Annual herb (hemiparasitic); blooms (March) April-May; vernal pools (often acidic); elevation from 165 to 2,460 feet; Fresno, Madera, Merced, Mariposa, San Joaquin, Stanislaus counties.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Caulanthus californicus California jewelflower	US: E CA: E CRPR: 1B.1	Annual herb; blooms February-May; chenopod scrub, pinyon and juniper woodland, valley and foothill grassland; elevation from 200 to 3,280 feet; Fresno, Kings, Kern, Santa Barbara, San Luis Obispo, Tulare counties.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Imperata brevifolia California satintail	US: — CA: — CRPR: 2B.1	Perennial rhizomatous herb; blooms September-May; chaparral, coastal scrub, meadows and seeps (often alkali), Mojavean desert scrub, riparian scrub, elevation from 0 to 3,985 feet; Butte, Fresno, Imperial, Inyo, Kern, Lake, Los Angeles, Orange, Riverside, San Bernardino, Tehama, Tulare, Ventura counties.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Leptosiphon serrulatus Madera leptosiphon	US: — CA: — CRPR: 1B.2	Annual herb; blooms April-May; cismontane woodland, lower montane coniferous forest; elevation from 985 to 4,265 feet; Fresno, Kern, Madera, Mariposa, Tulare counties.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Orcuttia inaequalis San Joaquin Valley Orcutt grass	US: T CA: E CRPR: 1B.1	Annual herb; blooms April-September; vernal pools; elevation from 35 to 2,475 feet; Fresno, Madera, Merced, Solano, Stanislaus, Tulare counties.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Orcuttia pilosa hairy Orcutt grass	US: E CA: E CRPR: 1B.1	Annual herb; blooms May-September; vernal pools; elevation from 150 to 655 feet; Glenn, Madera, Merced, Stanislaus, Tehama counties.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Sagittaria sanfordii Sanford's arrowhead	US: — CA: — CRPR: 1B.2	Perennial rhizomatous herb (emergent); blooms May-October (November); marshes and swamps (shallow freshwater); elevation from 0 to 2,135 feet; Butte, Del Norte, El Dorado, Fresno, Kings, Los Angeles, Madera, Merced, Mariposa, Marin, Napa, Orange, Sacramento, San Bernardino, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sutter, Tehama, Tulare, Ventura, Yuba counties.	No	The BSA is heavily developed and lacks natural habitat that could support this species.

Table C.1: Special-Status Species in the Vicinity of the Project

Scientific Name / Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Tuctoria greenei Greene's tuctoria	US: E CA: R CRPR: 1B.1	Annual herb; blooms May-July (September); vernal pools; elevation from 100 to 3,510 feet; Butte, Fresno, Glenn, Madera, Merced, Modoc, Shasta, San Joaquin, Stanislaus, Tehama, Tulare counties.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Fish				
Mylopharodon conocephalus hardhead	US: — CA: SSC	Found in Klamath/North Coast flowing waters and Sacramento/San Joaquin flowing waters; require clear, deep pools with sand/ gravel/boulder bottoms and slow water velocity.	No	Dry Creek Canal is not part of the species range. The BSA intersects the range for this species, but the Project site is nearly 5 miles south of the range.
Invertebrates				
Branchinecta lynchi vernal pool fairy shrimp	US: T CA: —	Occur in a variety of vernal pool habitats that range from small, clear pools to large, turbid and alkaline pools; more common in pools less than 0.05 acre, typically as part of larger vernal pool complexes; adults active from early December to early May; pools must hold water for at least 18 days, the minimum to complete the life cycle if temperatures are optimal; eggs are laid in spring and persist through the dry season as cysts; current California distribution includes the Central Valley and coast ranges; threatened by habitat loss, degradation, and fragmentation, and interference with vernal pool hydrology.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Bombus crotchii Crotch's bumble bee	US: — CA: C	Nearly endemic to California; occurs in grassland and shrublands in southern and central California; flight period for queens is from late February to late October; flight period for workers and males is from late March through September; nests underground; likely overwinters in soft soil or under leaf litter; generalist forager; food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	US: T CA: —	Requires elderberry shrubs for reproduction and survival, with stems greater than 1 inch; occurs only in the Central Valley north of the San Joaquin River; occurs below 500 feet elevation; eggs laid on elderberry shrubs; larvae burrow into stems for food and metamorphosis; adults emerge from the stem and spend the remainder of their lives on the same shrub or on the ground underneath.	No	The BSA is heavily developed and lacks natural habitat that could support this species.

Table C.1: Special-Status Species in the Vicinity of the Project

Scientific Name / Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Danaus plexippus monarch butterfly	US: PT CA: —	Migrant; lays eggs on milkweed (primarily *Asclepias* spp.); overwinters along the coast in dense stands of eucalyptus, Monterey pine, and Monterey cypress that provide indirect sunlight, moisture for hydration, protection from winds, and above-freezing temperatures.	No	No recorded occurrences within 5 miles of the BSA. No suitable wintering or breeding habitat is present.
Amphibians				
Ambystoma californiense California tiger salamander pop. 1	US: T CA: T, SSC	Small salamander found in vernal and seasonal pools and associated grasslands, oak savanna and woodland, and coastal scrub in the Central Valley from Tulare County north to the Sacramento area and along the Central Coast from Santa Barbara County north to the San Franciso Bay; 0–3,200 feet elevation; spends most of the year in small mammal burrows; breeding season is November–February; requires seasonal ponds for breeding and egg laying; can travel more than 3,000 feet between aquatic and upland habitats.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Spea hammondii western spadefoot	US: PT CA: SSC	Species relies on vernal pools for breeding where predators cannot become established; open areas with sand or gravelly soils in a variety of habitats: grasslands, coastal scrub, woodlands, chaparral, sandy washes, lowland river floodplains, alkali flats, foothills, and mountains; endemic to California and northern Baja California; distribution is from Redding south throughout the Central Valley and foothills, throughout the South Coast Ranges into coastal southern California to the Transverse and Peninsular mountains; elevation is from sea level to 4,500 feet.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Reptiles				
Actinemys marmorata northwestern pond turtle	US: PT CA: SSC	Highly aquatic and diurnally active; found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with vegetation and rocky/muddy bottoms; wide variety of habitats; needs basking areas near water (logs, rocks, vegetation mats, banks); may enter brackish water and even seawater; digs nest on land near water; range is from north of the San Francisco Bay area south, including the Central Valley.	No	The BSA is heavily developed and lacks suitable upland habitat. High levels of disturbance would preclude this species from using Dry Creek Canal.

Table C.1: Special-Status Species in the Vicinity of the Project

Scientific Name / Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Anniella pulchra northern California legless lizard	US: — CA: SSC	Secretive fossorial lizard found in many habitats, especially valley and foothill grassland, chaparral, coastal scrub, and coastal dune; most commonly associated with sandy or loose organic soils with leaf litter; elevation from near sea level to 6,000 feet; may hibernate in inland areas with colder winter temperatures; primarily associated with foothills and mountains from Ventura County north to San Joaquin and Contra Costa counties, and in the western Sierra Nevada foothills in Fresno and Tulare counties.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Arizona elegans occidentalis California glossy snake	US: — CA: SSC	Scrub and grassland habitats, often with loose or sandy soils. Patchily distributed from the eastern portion of San Francisco Bay to southern San Joaquin Valley and in non-desert areas of southern California. Also occurs in Baja California, Mexico.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Gambelia silus [=sila] blunt-nosed leopard lizard	US: E CA: E, FP	Occurs in semiarid habitats within the southern Central Valley and Cuyama Valley; habitats typically are flat and have large open areas with scattered shrubs for refuge; uses small mammal burrows for shelter; spends most of the year underground, surfacing in spring/ early summer to breed and eat; hatchlings surface in the fall to eat; may interbreed with long-nosed leopard lizard in Cuyama Valley; threatened by habitat loss/fragmentation and drought; elevation from 100–2,400 feet.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Phrynosoma blainvillii coast horned lizard	US: — CA: SSC	Prefers sandy/loose soils in grassland, forests, woodlands, and open chaparral; often found along sand washes and dirt roads with scattered shrubs for refuge; specializes in consuming ants; distribution includes coastal California from Baja California north to the Bay Area, southeastern desert regions, southern Central Valley flats and foothills, and surrounding mounts on drier, warmer slopes; threatened by habitat loss/fragmentation and the spread of invasive ant species displacing native prey; elevation from sea level to 8,000 feet.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Birds				
Agelaius tricolor tricolored blackbird	US: — CA: T, SSC	Colonial breeder that prefers freshwater, emergent wetlands with tall, dense cattails or tules, but also thickets of willow, blackberry, wild rose, and tall herbs; breeding colonies are minimum approximately 50 pairs; forages in pastures, grain fields, and similar habitats near breeding areas.	No	The BSA is heavily developed and lacks natural habitat that could support this species.

Table C.1: Special-Status Species in the Vicinity of the Project

Scientific Name / Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Athene cunicularia burrowing owl	US: — CA: C, SSC	Occupies a variety of open, semi-arid to arid habitats throughout central and southern California, including desert regions; prefers open habitats with few shrubs or trees; most active around sunrise and sunset; utilizes burrows constructed by mammals year-round for shelter and nesting; well documented in urban areas where patches of undeveloped areas are present (e.g., canals, airports, drainage basins) and in areas of dense agricultural development, particularly where canals provide burrow habitat; forages primarily for rodents and insects within several miles of its burrow, usually in open, grassy habitats if available; has been observed hunting bats and insects around parking lot lights; threats include development resulting in habitat loss/fragmentation.	No	Unprocessed CNDDB record of an owl less than 1 mile to the south of the Project area from 2018 in the Union Pacific Railroad corridor. No records confirming nests. Burrowing owls can adapt to urban areas but still need open space, which is lacking in the Project area.
Buteo swainsoni Swainson's hawk	US: — CA: T	Resident and migrant throughout the Central Valley, Klamath Basin, Northeastern Plateau, Mojave Desert, Antelope Valley, and elsewhere; breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannahs; usually nests in scattered trees surrounded by foraging habitat; forages primarily for small mammals in grasslands and open desert scrublands or suitable grain fields or livestock pastures; occasionally eats insects, amphibians, reptiles, and birds; usually found near water.	No	Several recorded occurrences in the area, many of which are considered historic. Species is now largely constrained to the outer margins of the city. There is a very high level of disturbance within the BSA that would discourage both the hawks and their prey.
Coccyzus americanus yellow-billed cuckoo	US: T CA: E	Found in scattered occurrences of valley foothill and desert riparian habitats in the Sacramento and Owens valleys, the southern San Joaquin Valley, and southern California; migrant; winters in South America and breeds in California from June to September; prefers dense riparian thickets, especially willows; breeds in river bottoms and other mesic habitats where humidity is high; forages for insects but occasionally eats frogs, lizards, and sometimes fruit.	No	The BSA is heavily developed and lacks natural habitat that could support this species.
Vireo bellii pusillus least Bell's vireo	US: E CA: E	Widespread throughout western Sierra Nevada and coastal valleys and foothills south of Santa Clara County; occurs below 2,000 feet elevation; migrant; winters in Mexico and breeds in California from March to August; nests in dense riparian habitat along streams; prefers willows, cottonwoods, Baccharis, wild blackberry, or mesquite; feeds on insects and some fruits.	No	The BSA is heavily developed and lacks natural habitat that could support this species.

Table C.1: Special-Status Species in the Vicinity of the Project

Scientific Name / Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Mammals				
Antrozous pallidus pallid bat	US: — CA: SSC	Occurs in low elevations in deserts, grasslands, shrublands, woodlands, and forest throughout California from sea level up through mixed conifer forests; most common in open, dry, habitats with rocky areas for roosting; roosts usually in groups of 20 or more; day roosts in caves, crevices, mines, and occasionally hollow trees and buildings; night roosts sometimes in more open areas; roost must protect against high temps; maternity colonies form in April; hibernates in winter; needs water; very sensitive to roost disturbance.	No	One recorded occurrence within the BSA from 1909 (EONDX 66606). There is a very high level of disturbance that would discourage this species from roosting within the BSA.
Dipodomys nitratoides exilis Fresno kangaroo rat	US: E CA: E	Occurs on alkali open grassland on bare alkaline clay-based soils; nocturnal species; burrows with tunnels approximately 12 to 15 inches below ground; threatened by predation and disease; historically occurred on the valley floor in Kings, Fresno, Madera, and Merced counties, but may be extirpated.	No	Two recorded occurrences within the BSA are historic and considered extirpated. The BSA is heavily developed and lacks natural habitat that could support this species.
Eumops perotis californicus western mastiff bat	US: — CA: SSC	Uncommon resident in southeastern San Joaquin Valley and Coast Ranges; conifer and deciduous woodlands, coastal scrub, annual and perennial grassland, desert scrub, chaparral, palm oases, and urban habitats; roosts in crevices on cliff faces, high buildings, trees, and tunnels; needs vertical faces to drop off to take flight; nursery roosts in tight rock crevices or buildings; rarely uses night roosts; nonmigratory; active year-round; eats insects.	**Yes**	Nearest record is less than 0.5 mile to the southeast and presumed extent (EONDX 66374). Known to occur in urban areas. Several large trees in BSA that could support species.
Taxidea taxus American badger	US: — CA: SSC	Found throughout California except in the North Coast area; open grasslands, deserts, and edge of scrub and woodland habitats; requires loose soils; does not occur in irrigated agriculture; active year-round, both nocturnal and diurnal; young are born in March and April; primarily eats small mammals and occasionally reptiles, insects, birds, eggs, and carrion; capable of digging a new den each night.	No	Two recorded occurrences in the BSA are on the outskirts of the city. The BSA is heavily developed and lacks natural habitat that could support this species.

Table C.1: Special-Status Species in the Vicinity of the Project

Scientific Name / Common Name	Status	Habitat Requirements	Potential to Occur	Rationale
Vulpes macrotis mutica San Joaquin kit fox	US: E CA: T	Endemic to the Central Valley; San Joaquin Valley, Carrizo Plain, Salinas Valley, Cuyama Valley, and other small valleys in western foothills; arid to semi-arid grasslands, open shrublands, savannahs, and grazed lands with loose-textured soils; highly adaptable and documented in urban developed areas; uses burrows year-round for shelter, escape from predators, and rearing young; will use man-made structures, such as pipes, for denning; feeds primarily on small mammals but will also consume birds, reptiles, and insects and scavenge for human food; intensively maintained agricultural areas avoided; threatened by habitat loss and fragmentation, vehicle strikes, and disease; current mange outbreak in urban population in Bakersfield and in nearby natural areas.	No	One recorded occurrence within the BSA from 1993 with a non-specific location (EONDX 53873). Although the species can adapt to urban environments, it has not been seen in decades in the Fresno area, and the urban density of the Project area is considerably higher than other urban areas in which this species has been documented.

Sources: CDFW 2025a, 2025b; CNPS 2025; USFWS 2025b; Zeiner et al. 1990.

Status:

E Listed as endangered
T Listed as threatened
PT Proposed Threatened
C Candidate for federal Listing
FP California Fully Protected
SSC California Species of Special Concern

CRPR (California Rare Plant Rank):

1A Presumed Extinct in California
1B Rare, Threatened, or Endangered in California and elsewhere
2A Plants presumed extirpated in California, but more common elsewhere
2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension:

.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Fairly endangered in California (20–80% occurrences threatened)
.3 Not very endangered in California (<20% of occurrences threatened)

Abbreviations:

BSA = Biological Study Area
CA = California
CDFW = California Department of Fish and Wildlife
CNDDB = California Natural Diversity Database
CNPS = California Native Plant Society
EONDX = Element Occurrence Index
US = United States
USFWS = United States Fish and Wildlife Service

APPENDIX G

CULTURAL CONSTRAINTS ASSESSMENT

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

July 10, 2025

Peter Winch
WRT, LLC
478 Tehama Street, Suite 2B
San Francisco, CA 94103

Subject: Constraints Assessment for the Tower District Specific Plan in Fresno, Fresno County, California (LSA Project No. 20241643)

Dear Mr. Winch:

This letter presents the results of the constraints assessment for the Tower District Specific Plan (project). The Tower District is an approximately 1,869-acre area located immediately north of Downtown Fresno and State Route 180 (SR-180) and 1 mile east of State Route 99 (SR-99). The project area is defined on Figure 1 (Attachment A). This Constraints Assessment determines the baseline conditions and sensitivity for potential impacts to known archaeological and built environment cultural resources in the study area, which is generally bound by Shields Avenue to the north, Blackstone Avenue to the east, SR-180 to the south, and Fruit Avenue and the Union Pacific Railroad tracks to the west.

The absence of previously documented prehistoric resources within the project area and severe disturbance associated with development suggest that sensitivity for in situ pre-contact archaeological resources is low. However, the establishment of the city of Fresno as a streetcar suburb in the early 20th century and the subsurface debris and associated trash within the study area indicate that the study area retains some potential for cultural resources. Project-specific cultural studies are required to determine presence/absence and appropriate treatment of potential undocumented resources.

METHODOLOGY

Record Search

On May 21, 2025, staff at the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield conducted a record search. The SSJVIC is an affiliate of the California State Office of Historic Preservation and is the official State repository for cultural resource records and reports for Fresno County. The objectives of this research are to: (1) establish the status and extent of previously recorded resources and studies in the Tower District, as bounded and depicted on the City of Fresno's website for the Tower District Specific Plan; and (2) note what types of previously undocumented resources might be expected to occur within the Plan Area based upon the existing data of known cultural resources and studies in the California Historical Resources Information System (CHRIS) database. The record search included a review of previously documented prehistoric- and historic-period resources and cultural resource records within the project site, as well as a review of cultural resource reports in the database.

RESULTS

Record Search

Data from the record search conducted at the SSJVIC indicate that there are 44 resources recorded within the project area, and 20 reports included the project area (Attachment B).

All resources recorded within the project area are historic (Table A). Of these historic resources, 40 records are historic structures. The remaining 5 historic resources include two railroads (P-10-004675 and P-10-003930), an overcrossing (P-10-006032), and a historic site with an associated trash deposit (P-10-007545).

Table A: Cultural Resources Within the Project Area

Primary #	Trinomial #	Site Description
10-003930	CA-FRE-003109H	Historic railroad
10-004245	-	Historic building
10-004246	-	Historic building
10-004247	-	Historic building
10-004271	-	Historic building
10-004285	-	Historic structure
10-004309	-	Historic building
10-004313	-	Historic building
10-004319	-	Historic building
10-004357	-	Historic building
10-004380	-	Historic building
10-004381	-	Historic building
10-004385	-	Historic building
10-004386	-	Historic building
10-004387	-	Historic building
10-004388	-	Historic building
10-004431	-	Historic building
10-004432	-	Historic building
10-004513	-	Historic railroad
10-004675	-	Historic railroad
10-005207	-	Historic building
10-005208	-	Historic building
10-005211	-	Historic building
10-005213	-	Historic building
10-005216	-	Historic building
10-005217	-	Historic building
10-005224	-	Historic building
10-005401	-	Historic building
10-005448	-	Historic building
10-005449	-	Historic building
10-005450	-	Historic building
10-005452	-	Historic building
10-005454	-	Historic building
10-005455	-	Historic district
10-005913	-	Historic building
10-006032	-	Historic bridge
10-006099	-	Historic building
10-006528	-	Historic building
10-006529	-	Historic building
10-006960	-	Historic building
10-006961	-	Historic building
10-006962	CA-FRE-003814H	Historic site
10-006963	-	Historic building
10-007545	-	Historic site

Source: Southern San Joaquin Valley Information Center (2025).

FINDINGS/RECOMMENDATIONS

The absence of prehistoric resources previously documented within the project area and severe disturbance associated with development suggest that sensitivity for in situ pre-contact archaeological resources is low. However, the establishment of the City as a streetcar suburb in the early 20th century and the subsurface debris and associated trash within the study area indicate the study area retains some potential for cultural resources. Project-specific cultural studies are required to determine presence/absence and appropriate treatment of potential undocumented resources.

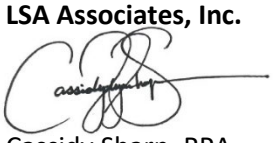
If buried cultural materials are encountered during earthmoving operations associated with the project, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds and determine appropriate treatment.

In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall take place until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code 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 will notify the Native American Heritage Commission (NAHC), which will 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 within 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

If you have any questions regarding this information, please contact me at cassidy.sharp@LSA.net.

Sincerely,

LSA Associates, Inc.

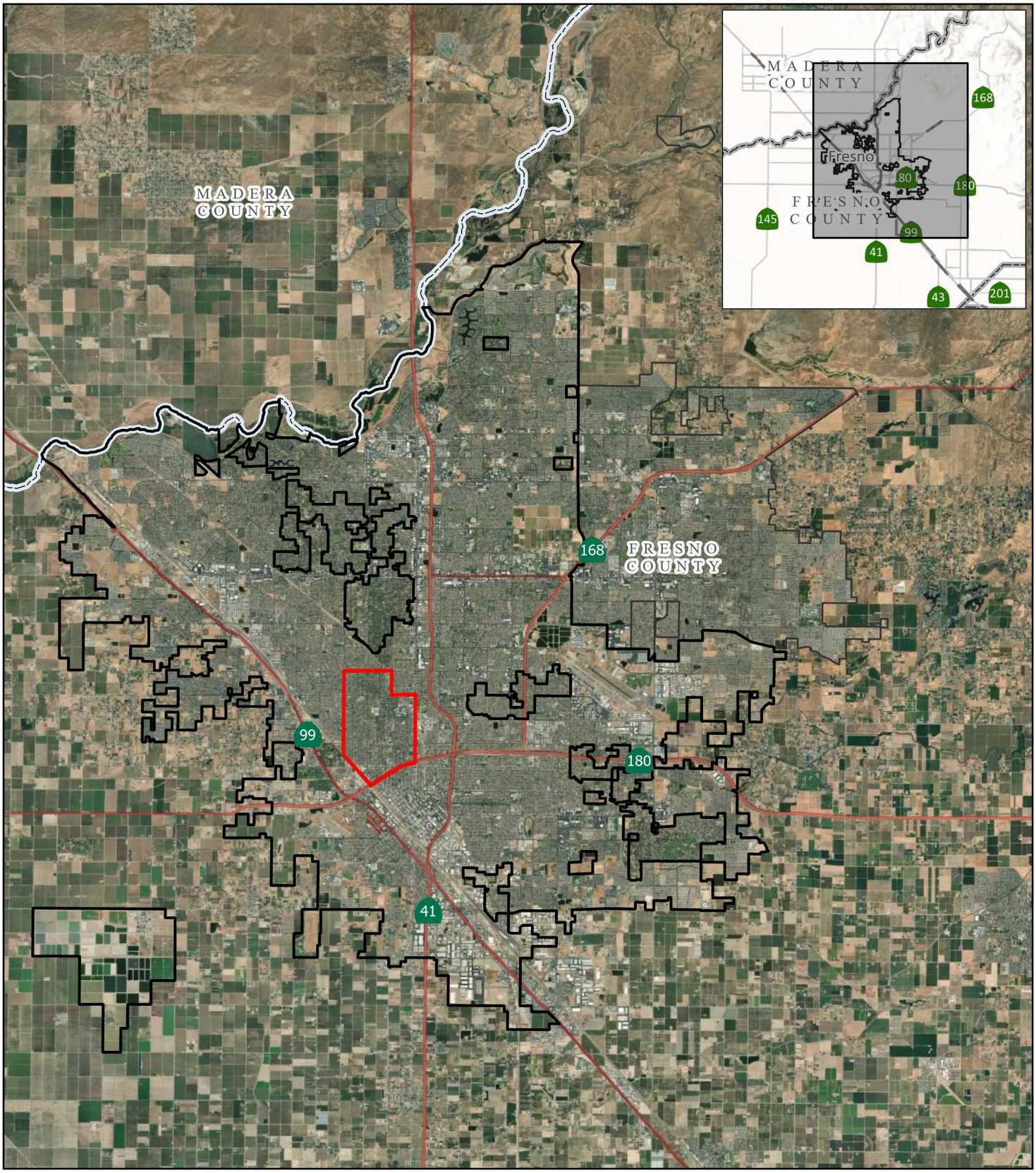


Cassidy Sharp, RPA
Archaeologist

Attachments: A – Figure 1: Regional Location and Local Vicinity
B – Record Search Results

ATTACHMENT A

FIGURE 1: REGIONAL LOCATION AND LOCAL VICINITY



LSA

Tower District Boundary
County Boundary
City of Fresno
City of Clovis

N

0 7500 15000
FEET

FIGURE 1

Tower District Specific Plan Update

Regional Location and Local Vicinity

SOURCE: Esri World Imagery (2025)

I:\2024\20241643\GIS\Pro\Tower District Specific Plan Update\Tower District Specific Plan Update.aprx (5/1/2025)

ATTACHMENT B

RECORD SEARCH RESULTS

California Historical Resources Information System



Fresno
Inyo
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
Email: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

5/21/2025

Cassidy Sharp
LSA
3210 El Camino Real, Suite 100
Irvine, CA 92602

Re: WRT: Fresno Tower District Specific Plan 20241643
Records Search File No.: 25-212

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on Fresno North, Fresno South USGS 7.5' quads. The following reflects the results of the records search for the project area.

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☒ Custom GIS Maps ☐ GIS Data ☐ Hand Drawn Maps (Inyo County Only)

Resources within project area:	44 resources – see list
Reports within project area:	20 reports – see list

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

Reports in PA:

FR-00135
FR-01231
FR-01651
FR-01687
FR-01694
FR-01755
FR-01947
FR-01949
FR-02002
FR-02076
FR-02157
FR-02230
FR-02272
FR-02287
FR-02307
FR-02326
FR-02327
FR-02722
FR-02789
FR-03059

Resources in PA:

P-10-003930
P-10-004245
P-10-004246
P-10-004247
P-10-004271
P-10-004285
P-10-004309
P-10-004313
P-10-004319
P-10-004357
P-10-004380
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P-10-006099
P-10-006528
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P-10-006960
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P-10-006962
P-10-006963
P-10-007545

APPENDIX H

NOISE AND VIBRATION IMPACT ANALYSIS

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NOISE AND VIBRATION IMPACT ANALYSIS

TOWER DISTRICT SPECIFIC PLAN UPDATE

FRESNO, CALIFORNIA

LSA

July 2025

NOISE AND VIBRATION IMPACT ANALYSIS

TOWER DISTRICT SPECIFIC PLAN UPDATE

FRESNO, CALIFORNIA

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Project No. 20241643

LSA

July 2025

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LIST OF ABBREVIATIONS AND ACRONYMS

CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
Caltrans Manual	Caltrans Transportation and Construction Vibration Guidance Manual
CEQA	California Environmental Quality Act
City	City of Fresno
CNEL	Community Noise Equivalent Level
dB	decibel(s)
dBA	A-weighted decibel(s)
District	Tower District
FHWA	Federal Highway Administration
ft	foot/feet
FTA	Federal Transit Administration
in/sec	inches per second
L_{dn}	day-night average noise level
L_{eq}	equivalent continuous sound level
L_{max}	maximum instantaneous noise level
MM	Mitigation Measure
PPV	peak particle velocity
project	Tower District Specific Plan Update
RCM	Regulatory Compliance Measure
RMS	root-mean-square
Specific Plan Area	Tower District Specific Plan Area
SR	State Route
STC	Sound Transmission Class
UPRR	Union Pacific Railroad
VdB	vibration velocity in decibels

NOISE AND VIBRATION IMPACT ANALYSIS

INTRODUCTION

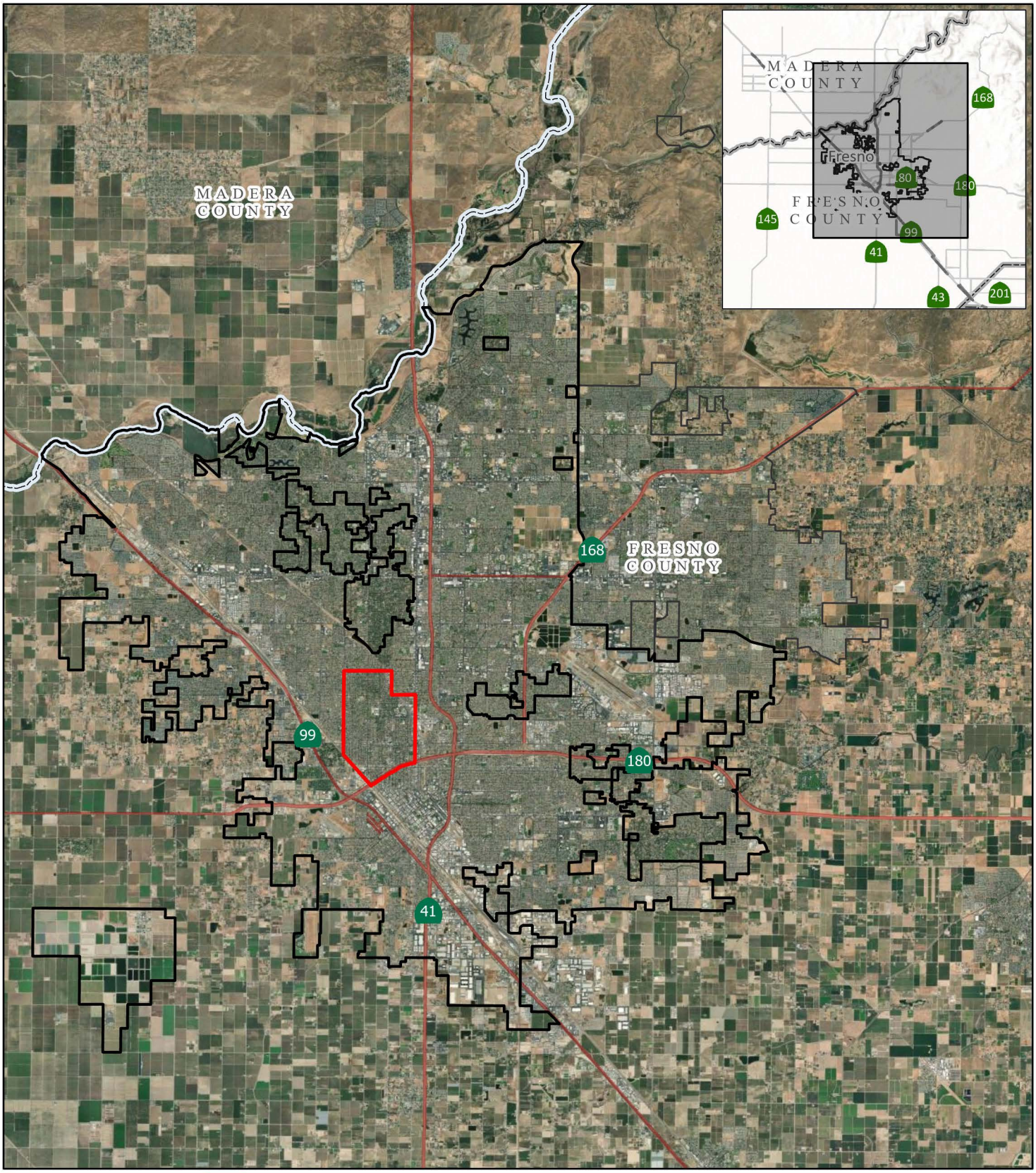
This Noise and Vibration Impact Analysis has been prepared to evaluate the potential noise and vibration impacts and mitigation measures associated with the Tower District Specific Plan Update (project) in Fresno, California. This report is intended to satisfy City of Fresno (City) requirements and the California Environmental Quality Act (CEQA) for a specific plan-level noise and vibration impact analysis by examining the short-term and long-term noise and vibration impacts on sensitive uses adjacent to the project site and evaluating mitigation measures that the project requires.

PROJECT LOCATION

The Tower District (District) is located in Fresno, California, which is in the central San Joaquin Valley of Fresno County, approximately 200 miles north of Los Angeles and 170 miles south of Sacramento. The District is an approximate 1,869-acre area located immediately north of Downtown Fresno and State Route (SR) 180 and 1 mile east of the SR-99 corridor. The District is generally bound by Shields Avenue to the north, Blackstone Avenue to the east, SR-180 to the south, and Fruit Avenue and the Union Pacific Railroad (UPRR) tracks to the west. To the north of Fresno is Madera County, to the northeast and adjacent to Fresno is Clovis, and unincorporated land is located to the east, south, and west of Fresno. Figure 1 shows the regional location and local vicinity map. Figure 2 shows the project location.

PROJECT DESCRIPTION

The proposed project would update the existing Specific Plan, adopted in 1991, to respond to issues in the District that have remained, changed, and emerged, as well as to provide strategic and comprehensive guidance for making decisions regarding the District's built environment and landscape character, land use and activities, public open space, community facilities, transportation, and other forms of infrastructure within the Tower District Specific Plan Area (Specific Plan Area). The Specific Plan Update establishes a shared set of goals, objectives, policies, and implements actions for the future growth and change of the Specific Plan Area. The Specific Plan Update also aids in implementing the broader goals and policies for the City, as outlined in the General Plan, in a manner that can better meet the needs of the District. This update is intended to streamline development within the Specific Plan Area by updating the Specific Plan Update's environmental analysis pursuant to CEQA requirements, and by providing a current regulatory framework and applicable mitigation measures.



LSA

Tower District Boundary
County Boundary
City of Fresno
City of Clovis

N

0 7500 15000
FEET

FIGURE 1

Tower District Specific Plan Update

Regional Location and Local Vicinity

SOURCE: Esri World Imagery (2025)

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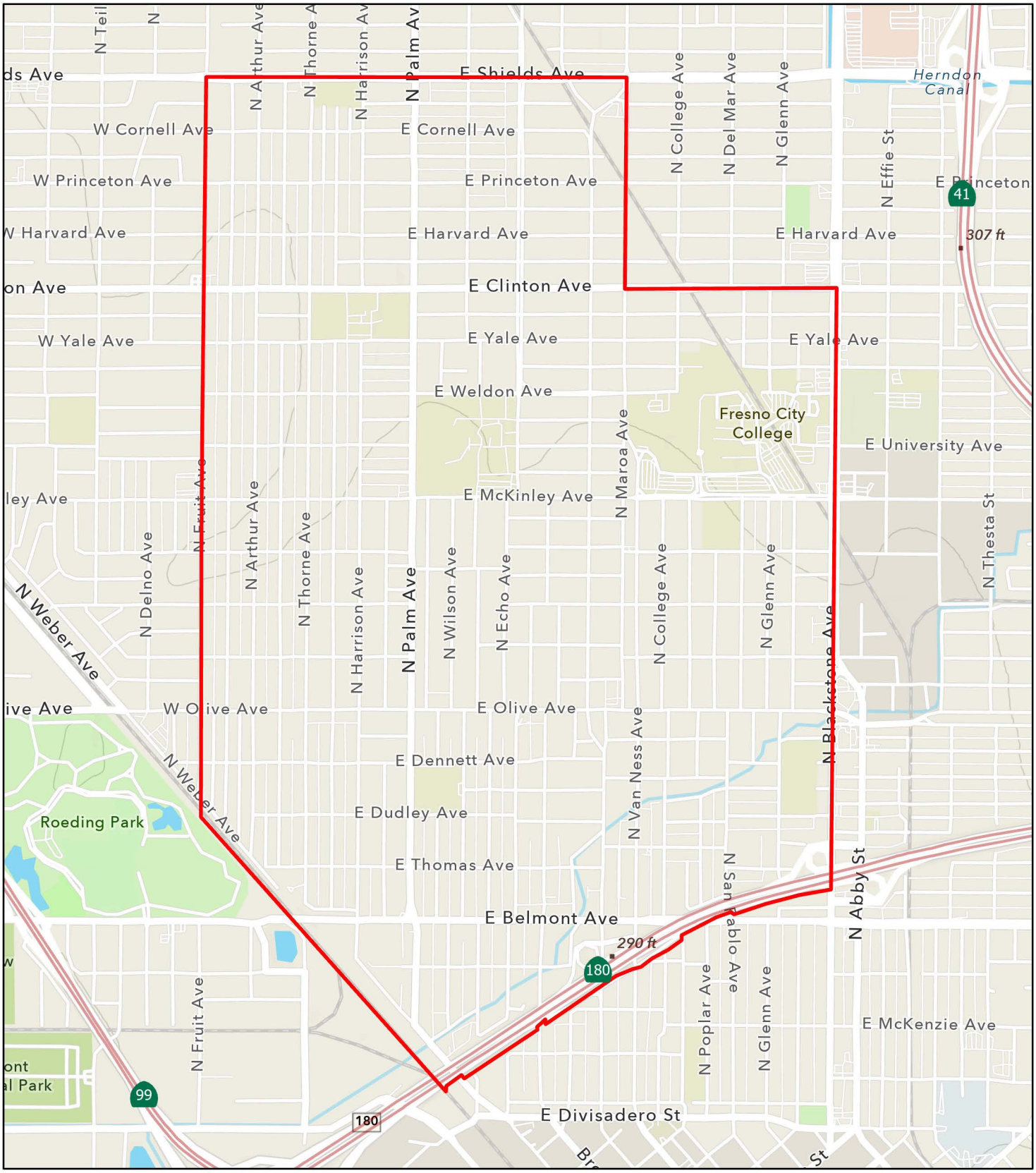

LSA

Tower District Boundary

FIGURE 2

0 850 1700
FEET

SOURCE: Esri Outdoor Contour Map (2025)

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Tower District Specific Plan Update

Project Location

CHARACTERISTICS OF SOUND

Sound is increasing in the environment and can affect quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations (or cycles per second) of a wave, resulting in the tone's range from high to low. Loudness is the strength of a sound, describes a noisy or quiet environment, and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity is the average rate of sound energy transmitted through a unit area perpendicular to the direction in which the sound waves are traveling. This characteristic of sound can be precisely measured with instruments. In the analysis of a project, the noise environment of the project area is defined in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound

Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Decibels (dB), unlike the linear scale (e.g., inches or pounds), is a scale based on powers of 10.

For example, 10 dB is 10 times more intense than 0 dB, 20 dB is 100 times more intense than 0 dB, and 30 dB is 1,000 times more intense than 0 dB. Thirty decibels (30 dB) represents 1,000 times as much acoustic energy as 0 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 A-weighted decibels (dBA) (very quiet) to 100 dBA (very loud).

Sound levels generate from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source, such as highway traffic or railroad operations, the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases 4.5 dB for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-weighted average noise over a sample period. However, the predominant rating scales for human communities in California are L_{eq} and the Community Noise Equivalent Level (CNEL) or the day-night average noise level (L_{dn}) based on dBA. CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the

hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the relaxation hours. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Other noise rating scales of importance, when assessing the annoyance factor, include the maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise. Another noise scale often used together with L_{max} in noise ordinances for enforcement purposes is noise standards in terms of percentile noise levels. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level; half the time the noise level exceeds this level and half the time it is less. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first is audible impacts, which refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions and thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. Sound levels from 160 to 165 dBA will potentially result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas. Table A lists definitions of acoustical terms, and Table B shows common sound levels and their noise sources.

FUNDAMENTALS OF VIBRATION

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors. The motion

may be discernible outdoors, but without the effects associated with the shaking of a building, there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items on shelves or wall hangings, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings radiating sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less, which is an order of magnitude below the damage threshold for normal buildings.

Table A: Definitions of Acoustical Terms

Term	Definition
Decibel, dB	A unit of noise level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in 1 second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very-low-frequency and very-high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. (All sound levels in this report are A-weighted unless reported otherwise.)
L_2, L_8, L_{50}, L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Sound Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dB to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Average Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter during a designated time interval using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time; usually a composite of sound from many sources from many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, time of occurrence, and tonal or informational content, as well as the prevailing ambient noise level.

Source: *Handbook of Acoustical Measurements and Noise Control* (Harris 1991).

Table B: Common Sound Levels and Their Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	—
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	—
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	—
Near-Freeway Auto Traffic	70	Moderately Loud	Reference Level
Average Office	60	Quiet	½ as loud
Suburban Street	55	Quiet	—
Light Traffic; Soft Radio Music in Apartment	50	Quiet	¼ as loud
Large Transformer	45	Quiet	—
Average Residence without Stereo Playing	40	Faint	⅛ as loud
Soft Whisper	30	Faint	—
Rustling Leaves	20	Very Faint	—
Human Breathing	10	Very Faint	Threshold of Hearing
—	0	Very Faint	—

Source: Compiled by LSA (2004).

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with both ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet (ft) from the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 ft (FTA 2018). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, both construction of the project and freight train operations could result in ground-borne vibration that may be perceptible and annoying.

Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path will usually be greater than ground-borne noise. Ground-borne vibration has the potential to disturb people and damage buildings. Although it is very rare for train-induced ground-borne vibration to cause even cosmetic building damage, it is not uncommon for construction processes (e.g., blasting and pile driving) to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2018). Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). The RMS velocity is best for characterizing human response to building vibration, and PPV is used to characterize potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. The vibration velocity level in decibels is defined as the following:

$$L_v = 20 \log_{10} [V/V_{ref}]$$

where L_v is the vibration velocity in decibels (VdB), V is the RMS velocity amplitude, and V_{ref} is the reference velocity amplitude, or 1 x 10^{-6} inches per second (in/sec) used in the United States.

REGULATORY SETTING

Federal Guidelines

Federal Transit Administration

The construction noise criteria included in the FTA *Transit Noise and Vibration Impact Assessment Manual* (2018) were used to evaluate potential construction noise impacts because the City does not have construction noise level limits. Table C shows the FTA's Detailed Assessment Daytime Construction Noise Criteria based on the composite noise levels for each construction phase.

Table C: Detailed Assessment Daytime Construction Noise Criteria

Land Use	Daytime 8-hour L_{eq} (dBA)
Residential	80
Commercial	85
Industrial	90

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
dBA = A-weighted decibels
L_{eq} = equivalent continuous sound level
FTA = Federal Transit Administration

State Guidelines

California Department of Transportation

Vibration standards included in the 2020 California Department of Transportation (Caltrans) *Transportation and Construction Vibration Guidance Manual* (Caltrans Manual) are used to evaluate ground-borne vibration impacts on human annoyance and building damage even though the City exempts vibration levels generated from construction. The criteria for environmental impact from ground-borne vibration are based on the maximum levels for a single event and the RMS vibration level. Table D provides the criteria for assessing the potential for interference or annoyance. Table E lists the potential vibration building damage criteria associated with construction activities, as suggested in the Caltrans Manual.

Table D: Construction Vibration Annoyance Criteria

Human Response	Vibration Level (RMS in/sec)
Barely perceptible	0.01
Distinctly perceptible	0.04
Strongly perceptible	0.10
Severe	0.40

Source: *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020).
Caltrans = California Department of Transportation
in/sec = inch/inches per second
RMS = root-mean-square

Table E: Construction Vibration Damage Criteria

Structure / Condition	PPV (in/sec)
Extremely fragile historic buildings, ruins, ancient monuments	0.08
Fragile buildings	0.10
Historic and some old buildings	0.25
Older residential structures	0.30
New residential structures	0.50
Modern industrial / commercial buildings	0.50

Source: Table 19, *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020).
Caltrans = California Department of Transportation
in/sec = inch/inches per second
PPV = peak particle velocity

Local Regulations

City of Fresno

General Plan Noise and Safety Element. The City General Plan Noise and Safety Element (2014) and Municipal Code has established interior and exterior noise standards from transportation (non-aircraft) noise sources for various land uses shown in Table F and exterior noise standards from stationary noise sources shown in Table G. In addition, the City General Plan Noise and Safety Element has established policies to meet the City's noise-related objective. The applicable General Plan Noise and Safety Element noise-related objective and policies for the proposed project are listed below.

Table F: City of Fresno Transportation (Non-Aircraft) Noise Sources

Noise-Sensitive Land Use[1]	Outdoor Activity Areas[2]	Interior Spaces	
	dBA L_{dn}/CNEL	dBA L_{dn}/CNEL	dBA L_{eq}
Residential	65	45	--
Transient Lodging	65	45	--
Hospital, Nursing Homes	65	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Church, Meeting Halls	65	--	45
Office Buildings	--	--	45
School, Libraries, Museums	--	--	45

Source: General Plan (City of Fresno 2014).
[1] The Department of Development and Resource Management Director, on a case-by-case basis, may designate land uses other than those shown in this table to be noise sensitive and may require appropriate noise mitigation measures.
[2] Where the location of outdoor activity areas is unknown or not applicable, the noise exposure standard shall be applied at the property line of the receiving land use. When ambient noise levels exceed or equal the levels in this table, mitigation shall only be required to limit noise to the ambient plus 5 dBA.
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels
L_{dn} = day-night average noise level
L_{eq} = equivalent continuous sound level

Table G: City of Fresno Stationary Noise Sources

	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly Equivalent Sound Level (dBA L_{eq})	50	45
Maximum Sound Level (dBA L_{max})	70	60

Source: City of Fresno Municipal Code (2025).

Note: As determined at outdoor activity areas. Where the location of outdoor activity area is unknown or not applicable, the noise exposure standard shall be applied at the property line of the receiving land use. The Director shall determine uses that qualify as "noise-sensitive". When ambient noise levels exceed or equal the levels in this table, mitigation shall only be required to limit noise to the ambient plus 5 dBA.
dBA = A-weighted decibels
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level

General Plan Noise-Related Objective and Policies.

Objective

NS-1 Protect the citizens of the City from the harmful and annoying effects of exposure to excessive noise.

Implementing Policies

NS-1-a **Desirable and Generally Acceptable Exterior Noise Environment.** Establish 65 dBA L_{dn} or CNEL as the standard for the desirable maximum average exterior noise levels for defined usable exterior areas of residential and noise-sensitive uses for noise, but designate 60 dBA L_{dn} or CNEL (measured at the property line) for noise generated by stationary sources impinging upon residential and noise-sensitive uses. Maintain 65 dBA L_{dn} or CNEL as the maximum average exterior noise levels for non-sensitive commercial land uses, and maintain 70 dBA L_{dn} or CNEL as maximum average exterior noise level for industrial land uses, both to be measured at the property line of parcels where noise is generated which may impinge on neighboring properties.

NS-1-b **Conditionally Acceptable Exterior Noise Exposure Range.** Establish the conditionally acceptable noise exposure level range for residential and other noise sensitive uses to be 65 dB L_{dn} or require appropriate noise reducing mitigation measures as determined by a site specific acoustical analysis to comply with the desirable and conditionally acceptable exterior noise level and the required interior noise level standards set in Table 9-2 (Table F).

NS-1-c **Generally Unacceptable Exterior Noise Exposure Range.** Establish the exterior noise exposure of greater than 65 dB L_{dn} or CNEL to be generally unacceptable for residential and other noise sensitive uses for noise generated by sources in Policy NS-1-a, and study

alternative less noise-sensitive uses for these areas if otherwise appropriate. Require appropriate noise reducing mitigation measures as determined by a site specific acoustical analysis to comply with the generally desirable or generally acceptable exterior noise level and the required 45 dB interior noise level standards set in Table 9-2 (Table F) as conditions of permit approval.

NS-1-g Noise mitigation measures which help achieve the noise level targets of this plan include, but are not limited to, the following:

- Façades with substantial weight and insulation;
- Installation of sound-rated windows for primary sleeping and activity areas;
- Installation of sound-rated doors for all exterior entries at primary sleeping and activity areas;
- Greater building setbacks and exterior barriers;
- Acoustic baffling of vents for chimneys, attic and gable ends;
- Installation of mechanical ventilation systems that provide fresh air under closed window conditions.

The aforementioned measures are not exhaustive and alternative designs may be approved by the City, provided that a qualified Acoustical Consultant submits information demonstrating that the alternative design(s) will achieve and maintain the specific targets for outdoor activity areas and interior spaces.

NS-1-h **Interior Noise Level Requirement.** Comply with the State Code requirement that any new multifamily residential, hotel, or dorm buildings must be designed to incorporate noise reduction measures to meet the 45 dB L_{dn} interior noise criterion, and apply this standard as well to all new single-family residential and noise sensitive uses.

NS-1-i **Mitigation by New Development.** Require an acoustical analysis where new development of industrial, commercial or other noise generating land uses (including transportation facilities such as roadways, railroads, and airports) may result in noise levels that exceed the noise level exposure criteria established by Tables 9-2 (Table F) and 9-3 (Table G) to determine impacts, and require developers to mitigate these impacts in conformance with Tables 9-2 (Table F) and 9-3 (Table G) as a condition of permit approval through appropriate means.

Noise mitigation measures may include:

- The screening of noise sources such as parking and loading facilities, outdoor activities, and mechanical equipment;
- Providing increased setbacks for noise sources from adjacent dwellings;
- Installation of walls and landscaping that serve as noise buffers;
- Installation of soundproofing materials and doubleglazed windows; and
- Regulating operations, such as hours of operation, including deliveries and trash pickup.

Alternative acoustical designs that achieve the prescribed noise level reduction may be approved by the City, provided a qualified Acoustical Consultant submits information demonstrating that the alternative designs will achieve and maintain the specific targets for outdoor activity areas and interior spaces. As a last resort, developers may propose to construct noise walls along roadways when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility, with no City funding.

NS-1-j **Significance Threshold.** Establish, as a threshold of significance for the City's environmental review process, that a significant increase in ambient noise levels is assumed if the project would increase noise levels in the immediate vicinity by 3 dB L_{dn} or CNEL or more above the ambient noise limits established in this General Plan Update.

Municipal Code. Section 10-109(a) of the City Municipal Code (2025) limits construction, repair or remodeling work accomplished pursuant to a building, electrical, plumbing, mechanical, or other construction permit issued by the City or other governmental agency, or to site preparation and grading to between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday.

Section 15-2507 of the City Municipal Code (2025) states that no vibration shall be produced that is transmitted through the ground and is discernible without the aid of instruments by a reasonable person at the lot lines of the site. Vibrations from temporary construction, demolition, and vehicles that enter and leave the subject parcel (e.g., construction equipment, trains, trucks, etc…) are exempt from this standard.

EXISTING SETTING

Overview of the Existing Noise Environment

Existing noise levels in the District as well as the surrounding areas of the District are primarily generated by transportation noise sources. Vehicular traffic noise is the dominant source in most areas, and aircraft and rail activity are sources of noise in the local areas surrounding these operations. In addition, industrial and commercial activity are sources of noise in the area of these land uses.

Land Uses in the Project Vicinity

Land uses within the District include single-family residential uses, which comprise over half of the District's land area, medium-density residential uses, high-density residential uses, public uses (e.g., schools, parks, and recreation sites), and light industrial uses, which are generally confined to the southwest edge of the District. Also, the District is generally surrounded by urban, built-up areas consisting of similar land uses to those found within the District, including a mix of residential, commercial, public institutions, and pockets of industrial uses. Additionally, Roeding Regional Park is located west of the District, immediately adjacent to the UPRR line and Golden State Boulevard.

Ambient Noise Measurements

Three long-term (24-hour) noise level measurements were conducted from June 17 to June 18, 2025, using Larson Davis Spark 706RC dosimeters to document the existing noise environment within the project area. Table H summarizes the results of the long-term noise level measurements along with a description of the measurement locations and noise sources that occurred during the measurements. As shown in Table H, the calculated CNEL levels at LT-1 through LT-3 range from 58.2 to 72.1 dBA CNEL. The daytime noise levels ranged from 49.4 to 72.3 dBA L_{eq}, and the nighttime noise levels ranged from 43.3 to 70.1 dBA L_{eq}. Also, the daytime maximum instantaneous noise levels ranged from 67.1 to 98.2 dBA L_{max}, and the nighttime maximum instantaneous noise levels ranged from 56.7 to 94.6 dBA L_{max}. The long-term noise level measurement survey sheets, along with the hourly L_{eq} and L_{max} results, are provided in Appendix A. Figure 3 shows the long-term monitoring locations.

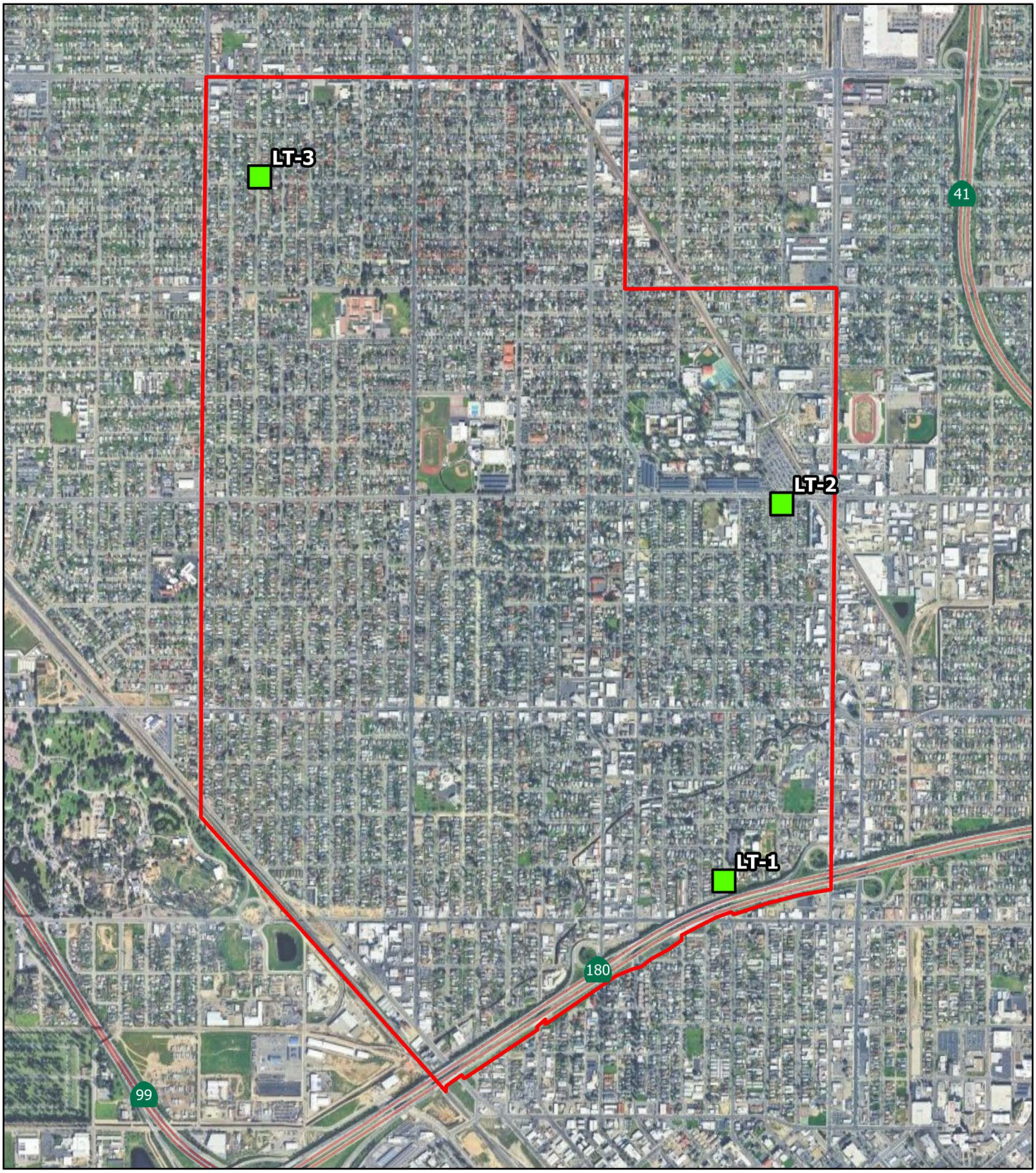
Existing Aircraft Noise

The closest airports to the Specific Plan Area are the Fresno Chandler Executive Airport (1.0 mile southeast of the project site), Fresno Yosemite International Airport (3.3 miles east of the project site), and Sierra Sky Park Airport (4.8 miles northwest of the project site). The Specific Plan Area is outside the 60 dBA CNEL noise contour of airports based on the *Fresno County Airport Land Use Compatibility Plan* (Fresno County Airport Land Use Commission 2023). There are also no private airstrips within 2 miles of the project site. In addition, the aviation-related noise exposure to people residing or working in the Specific Plan Area under the proposed project would remain the same as the Approved Specific Plan. Therefore, the proposed project would not expose people residing or working in the Specific Plan Area to aviation-related excessive noise levels, and this topic is not further discussed.

Table H: Long-Term Ambient Noise Monitoring Results

Monitoring No.	Location	Noise Level					Noise Source
		dBA L_{eq}		dBA L_{max}		CNEL	
		Daytime	Nighttime	Daytime	Nighttime		
LT-1	621 North San Pablo Avenue. On a pole. On the west side of North San Pablo Avenue. Approximately 20 ft from North San Pablo Avenue centerline.	63.5–66.9 (62.5)[1]	56.0–64.2 (61.8)[2]	78.6–93.1	77.1–89.1	69.2	Traffic on Sequoia Kings Canyon Freeway (SR-180) and North San Pablo Avenue.
LT-2	1599 North Calaveras Street. On a pole in the alleyway. Approximately 85 ft from the East McKinley Avenue centerline.	62.2–72.3 (65.6)[1]	58.7–70.1 (64.8)[2]	77.2–98.2	81.6–94.6	72.1	Traffic on East McKinley Avenue and Blackstone Avenue. Occasional train pass-by and crossing noise. Occasional aircraft noise.
LT-3	244 West Princeton Avenue. On a tree. Approximately 20 ft away from North Arthur Avenue centerline. At the northeast corner of North Arthur Avenue and West Princeton Avenue.	49.4–55.5 (51.2)[1]	43.3–56.7 (51.4)[2]	67.1–84.0	56.7–77.4	58.2	Very light traffic on West Princeton Avenue and North Arthur Avenue. Occasional aircraft noise.

Source: Compiled by LSA (2025).
Note: The long-term (24-hour) noise level measurements were conducted from June 17 to June 18, 2025.
[1] Average daytime noise level.
[2] Average nighttime noise level.
CNEL = Community Noise Equivalent Levell
dBA = A-weighted decibels
ft = foot/feet
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
SR-180 = State Route 180



LSA

Tower District Boundary

Long-term Noise Monitoring Locations

FIGURE 3

N

0 850 1700

FEET

SOURCE: Google Imagery (2025)

Tower District Specific Plan Update

Noise Monitoring Locations

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IMPACTS

Short-Term Construction Noise Impacts

Two types of short-term noise impacts could occur during construction on the project site. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on roads leading to the site. The pieces of heavy equipment for construction activities will be moved on site, will remain for the duration of each construction phase, and will not add to the daily traffic volume in the project vicinity. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance (passing trucks at 50 ft would generate up to a maximum of 84 dBA), the effect on longer-term (daily) ambient noise levels would be small because the daily construction-related vehicle trips are small compared to the existing daily traffic volumes on roadways leading to the project site. The results of the California Emissions Estimator Model (CalEEMod) (version 2022.1) contained in Appendix A of the *Tower District Specific Plan Update Air Quality, Energy, and Greenhouse Gas Impact Analysis Report* (LSA 2025a) indicate that the building construction phase would generate the most trips out of all of the construction phases (up to 2,887 vehicle trips) and that they would be distributed throughout the Specific Plan Area over 11 years. Although the proposed project would generate higher vehicle trips than the Approved Specific Plan, construction-related vehicle trips are not expected to double the existing traffic volume on roadways within the project area. A doubling of traffic would result in a noise increase of 3 dBA. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, short-term, construction-related noise impacts associated with worker commute and equipment transport to the project site would be less than significant. No mitigation measures are required.

The second type of short-term noise impact is related to noise generated from construction activities. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. The project anticipates site preparation, grading, building construction, paving, and architectural coating phases of construction. These various sequential phases change the character of the noise generated on a project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table I lists the maximum noise levels (L_{max}) recommended for noise impact assessments for typical construction equipment included in the *FHWA Highway Construction Noise Handbook* (FHWA 2006), based on a distance of 50 ft between the equipment and a noise receptor.

Table J lists the anticipated construction equipment for each construction phase based on the CalEEMod (Version 2022.1) results contained in Appendix A of the *Tower District Specific Plan Update Air Quality, Energy, and Greenhouse Gas Impact Analysis Report* (LSA 2025a). Table J shows the combined noise level at 50 ft from all of the equipment in each phase and the L_{eq} noise level for each equipment at 50 ft based on the quantity, reference L_{max} noise level at 50 ft, and the acoustical use factor. As shown in Table J, construction noise levels would reach up to 89.2 dBA L_{eq} at a distance of 50 ft.

Table I: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Use Factor[1] (Percent)	Maximum Noise Level (L_{max}) at 50 ft[2]
Backhoe	40	80
Compactor (ground)	20	80
Compressor (air)	40	80
Crane	16	85
Dozer	40	85
Dump Truck	40	84
Excavator	40	85
Flatbed Truck	40	84
Forklift	20	85
Front-End Loader	40	80
Generator	50	82
Grader	40	85
Impact Pile Driver	20	95
Jackhammer	20	85
Pavement Scarifier	20	85
Paver	50	85
Pickup Truck	40	55
Pneumatic Tools	50	85
Pump	50	77
Rock Drill	20	85
Roller	20	85
Scraper	40	85
Tractor	40	84
Welder/Torch	40	73

Source: Table 9.1, *FHWA Highway Construction Noise Handbook* (FHWA 2006).
Note: The noise levels reported in this table are rounded to the nearest whole number.
[1] Acoustical Use factor is the percentage of time during a construction noise operation that a piece of construction equipment is operating at full power.
[2] Maximum noise levels were developed based on Spec 721.560 from the CA/T program to be consistent with the City of Boston, Massachusetts, Noise Code for the "Big Dig" project.
CA/T = Central Artery/Tunnel
FHWA = Federal Highway Administration
ft = foot/feet
L_{max} = maximum instantaneous noise level

Table J: Summary of Construction Phase, Equipment, and Noise Levels

Construction Phase	Construction Equipment	Quantity	Reference Noise Level at 50 ft (dBA L_{max})	Acoustical Use Factor[1] (%)	Noise Level at 50 ft (dBA L_{eq})	Combined Noise Level at 50 ft (dBA L_{eq})
Site Preparation	Dozers	3	85	40	85.8	87.3
	Front-End Loader	4	80	40	82.0	
Grading	Graders	1	85	40	81.0	89.2
	Excavator	2	85	40	84.0	
	Front-End Loader	2	80	40	79.0	
	Scraper	2	85	40	84.0	
	Dozer	1	85	40	81.0	
Building Construction	Forklift	3	85	20	82.8	86.5
	Generator	1	82	50	79.0	
	Crane	1	85	16	77.0	
	Welder/Torch	1	73	40	69.0	
	Front-End Loader	3	80	40	80.8	
Paving	Paver	2	85	50	85.0	87.6
	Pavement Scarifier	2	85	20	81.0	
	Roller	2	85	20	81.0	
Architectural Coating	Air Compressors	1	80	40	76.0	76.0

Source: Compiled by LSA (2025).

[1] The acoustical use factor is the percentage of time during a construction noise operation that a piece of construction equipment operates at full power.

dBA = A-weighted decibels
ft = foot/feet
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level

Construction noise levels for the proposed project would be relatively similar to the Approved Specific Plan because construction would be localized to the specific project site throughout the Specific Plan Area, and would be constructed over many years. There would, however, be more construction under the proposed Specific Plan Update compared to the Approved Specific Plan. Although noise generated by project construction activities would be higher than the ambient noise levels and may result in a temporary increase in the ambient noise levels, construction noise would stop once project construction is completed. However, construction noise levels have the potential to exceed the FTA daytime construction noise standards of 80 dBA L_{eq} for residences and 85 dBA L_{eq} for commercial properties. Implementation of Regulatory Compliance Measure (RCM) N-1 and Mitigation Measure (MM) N-1 would reduce construction noise levels to the FTA daytime construction noise standards or below. Therefore, noise levels generated from project construction would be less than significant with the implementation of RCM N-1 and MM N-1.

RCM N-1 The construction contractor shall limit construction activities to between the hours of 7:00 a.m. and 10:00 p.m., Monday through Saturday, pursuant to Section 10-109(a) of the City of Fresno Municipal Code. Construction activities are prohibited outside of these hours and any time on Sundays.

MM N-1 If necessary, the construction contractor shall erect a minimum 10-foot-high temporary construction barrier at the project construction boundary to reduce

construction noise levels to the Federal Transit Administration (FTA) daytime noise standards of 80 dBA L_{eq} for residences and 85 dBA L_{eq} for commercial properties. The barriers shall be continuous with no gaps or holes and may be any material that has a minimum Sound Transmission Class (STC) rating of 28.

Short-Term Construction Vibration Impacts

This construction vibration impact analysis discusses the level of human annoyance and assesses the potential for building damage using vibration levels in PPV (in/sec). Table K shows the reference vibration levels at a distance of 25 ft for each type of standard construction equipment from the Caltrans Manual (2020). Outdoor site preparation and grading for the proposed project and Approved Specific Plan is expected to require the use of large bulldozers and loaded trucks, which would generate ground-borne vibrations of up to 0.089 in/sec maximum PPV and 0.062 in/sec RMS PPV for large bulldozers and 0.076 in/sec maximum PPV and 0.053 in/sec RMS PPV for loaded trucks when measured at 25 ft. Pile drivers, vibratory rollers, and other heavy-tracked construction equipment were not used under the Approved Specific Plan and would not be used under the proposed project.

Table K: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 ft	
	Maximum PPV (in/sec)	RMS PPV (in/sec)[1]
Pile Driver (Impact), Typical	0.644	0.451
Pile Driver (Sonic), Typical	0.170	0.119
Vibratory Roller	0.210	0.147
Hoe Ram	0.089	0.062
Large Bulldozer[2]	**0.089**	**0.062**
Caisson Drilling	0.089	0.062
Loaded Trucks[2]	**0.076**	**0.053**
Jackhammer	0.035	0.025
Small Bulldozer	0.003	0.002

Sources: *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020).
[1] RMS vibration velocity is 70 percent of the maximum PPV.
[2] Equipment shown in bold is expected to be used on site.
Caltrans = California Department of Transportation
ft = foot/feet
in/sec = inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square

The greatest vibration levels are anticipated during the site preparation and grading phases. All other phases are expected to result in lower vibration levels. The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project boundary (assuming the construction equipment would be used at or near the project boundary) because vibration impacts normally occur within the buildings.

The formula for vibration transmission is provided below:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.1}$$

Construction vibration levels for the proposed project would be relatively similar to the Approved Specific Plan because construction would be localized to the specific project site throughout the Specific Plan Area. There would, however, be more construction under the proposed Specific Plan Update compared to the Approved Specific Plan. The anticipated large bulldozer located within 10 ft of a historic building, 9 ft of an older residential structure, or 6 ft of a new residential or modern industrial/commercial buildings would experience vibration levels exceeding 0.25 in/sec (PPV), 0.3 in/sec (PPV), and 0.5 in/sec (PPV), respectively, which would have the potential to result in building damage. Implementation of MM N-2, which restricts heavy construction (e.g., large bulldozers and loaded trucks) or requires the use of light construction equipment (e.g., small bulldozers and trucks) within 10 ft of a historic building, 9 ft of an older residential structure, or 6 ft of a new residential or modern industrial/commercial building, would reduce vibration levels to below the vibration damage threshold for the respective building types. Therefore, vibration levels generated from project construction would be less than significant with the implementation of MM N-2.

MM N-2 The construction contractor shall restrict heavy construction (e.g., large bulldozers) or require the use of light construction equipment (e.g., small bulldozers and trucks) within 10 feet of a historic building, 9 feet of an older residential structure, or 6 feet of a new residential or modern industrial/commercial building.

Long-Term Traffic Noise Impacts

The proposed project would generate approximately 39,055 daily trips, and the Approved Specific Plan would generate approximately 36,054 daily trips based on the *Tower District Specific Plan Update Trip Generation and Vehicle Miles Traveled Analysis Memorandum* (LSA 2025b). Based on the information above and in the *Trip Generation and Vehicle Miles Traveled Analysis Memorandum*, the proposed project would increase daily trips by 3,001 compared to the Approved Specific Plan. Although the proposed project would increase daily trips by 3,001, the project-related traffic noise increase would either be similar or slightly higher than the Approved Specific Plan because the daily trips are distributed throughout the Specific Plan Area. Given this, daily trips associated with the proposed project are not expected to double the existing traffic volume on roadways within the project area. A doubling of traffic would result in a noise increase of 3 dBA. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, traffic noise from project-related traffic on off-site sensitive receptors would be less than significant, similar to the Approved Specific Plan. No mitigation measures are required.

Long-Term Stationary Noise Impacts

Similar to the Approved Specific Plan, the proposed project would include new stationary noise sources generated from proposed residential, commercial, and industrial uses, which could include sources such as heating, ventilation, and air conditioning (HVAC) equipment, swimming pool equipment, generators, drive-thru menu board speakerphones, truck loading docks, parking activities, and car wash operations. These long-term stationary noise sources could exceed the City's stationary noise standards shown in Table G if they were to occur in areas adjacent to noise-sensitive land uses. Noise impacts from long-term stationary noise sources would be considered significant. The implementation of MM N-3, which requires preparation of a project specific noise study to identify appropriate measures that would reduce noise levels from long-term operations of the proposed project at nearby noise-sensitive land uses to less than significant. Measures could

include setbacks, soundwalls, or locating loading/parking areas on sides of building structures opposite noise-sensitive receptors (using buildings as shielding). For example, a 6 ft high soundwall can provide noise reduction of 5 dBA and building structures can provide noise reduction of 10 dBA or greater. Therefore, long-term stationary noise impacts would be less than significant with implementation of MM N-3.

MM N-3 A project specific noise study shall be prepared by a qualified acoustical consultant to determine the noise levels generated from long-term operations of the proposed project and measures necessary to reduce noise levels and ensure compliance with the City's stationary noise standards shown in Table G. The project specific noise study will be submitted to the City for review and approval. Noise reduction measures may include, but are not limited to, locating stationary noise sources on the site to be shielded by structures (buildings, enclosures, or soundwalls) or by using equipment that has a quieter rating.

Long-Term Ground-Borne Noise and Vibration from Vehicular Traffic

The operations of the proposed project would not generate vibration. In addition, vibration levels generated from project-related traffic on roadways in the project area would be unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Therefore, vibration levels generated from project-related operations would be less than significant. No mitigation measures are required.

REGULATORY COMPLIANCE MEASURES

Implementation of the following measure would ensure that construction noise would be generated only during allowable times:

RCM N-1 The construction contractor shall limit construction activities to between the hours of 7:00 a.m. and 10:00 p.m., Monday through Saturday, pursuant to Section 10-109(a) of the City of Fresno Municipal Code. Construction activities are prohibited outside of these hours and any time on Sundays.

MITIGATION MEASURES

Implementation of the following mitigation measures would reduce construction noise and vibration levels:

MM N-1 If necessary, the construction contractor shall erect a minimum 10-foot-high temporary construction barrier at the project construction boundary to reduce construction noise levels to the Federal Transit Administration (FTA) daytime noise standards of 80 dBA L_{eq} for residences and 85 dBA L_{eq} for commercial properties. The barriers shall be continuous with no gaps or holes and may be any material that has a minimum Sound Transmission Class (STC) rating of 28.

MM N-2 The construction contractor shall restrict heavy construction (e.g., large bulldozers) or require the use of light construction equipment (e.g., small bulldozers and trucks)

within 10 feet of a historic building, 9 feet of an older residential structure, or 6 feet of a new residential or modern industrial/commercial building.

MM N-3 A project specific noise study shall be prepared by a qualified acoustical consultant to determine the noise levels generated from long-term operations of the proposed project and measures necessary to reduce noise levels and ensure compliance with the City's stationary noise standards shown in Table G. The project specific noise study will be submitted to the City for review and approval. Noise reduction measures may include, but are not limited to, locating stationary noise sources on the site to be shielded by structures (buildings, enclosures, or soundwalls) or by using equipment that has a quieter rating.

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APPENDIX A

NOISE SURVEY SHEETS

Noise Measurement Survey – 24 HR

Project Number: 20241643
Project Name: Tower District Specific Plan

Test Personnel: Moe Abushanab
Equipment: LD 706RC Spark (SN:17119)

Site Number: LT-1 Date: 6/17/2025

Time: From 4:00 p.m. To 4:00 p.m.

Site Location: 621 North San Pablo Avenue. On a pole. On the west side of North San Pablo Avenue. Approximately 20 ft from North San Pablo Avenue centerline.

Primary Noise Sources: Traffic on Sequoia Kings Canyon Freeway (SR-180) and North San Pablo Avenue.

Comments:

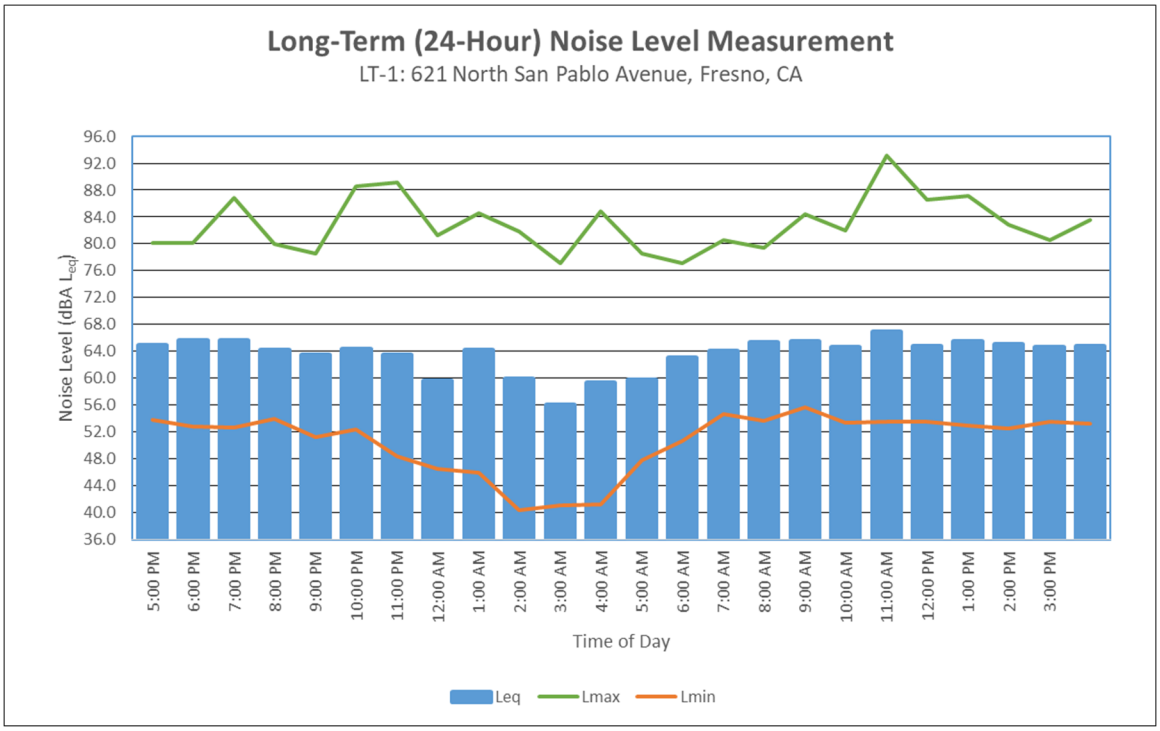
Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
4:00 PM	6/17/2025	64.9	80.2	53.8
5:00 PM	6/17/2025	65.6	80.1	52.8
6:00 PM	6/17/2025	65.6	86.9	52.7
7:00 PM	6/17/2025	64.3	80.0	53.9
8:00 PM	6/17/2025	63.5	78.6	51.2
9:00 PM	6/17/2025	64.4	88.5	52.4
10:00 PM	6/17/2025	63.4	89.1	48.4
11:00 PM	6/17/2025	59.7	81.3	46.5
12:00 AM	6/18/2025	64.2	84.6	45.9
1:00 AM	6/18/2025	59.9	81.8	40.4
2:00 AM	6/18/2025	56.0	77.1	41.1
3:00 AM	6/18/2025	59.3	84.9	41.3
4:00 AM	6/18/2025	59.7	78.6	47.8
5:00 AM	6/18/2025	63.1	77.2	50.7
6:00 AM	6/18/2025	64.1	80.5	54.7
7:00 AM	6/18/2025	65.4	79.4	53.7
8:00 AM	6/18/2025	65.5	84.4	55.7
9:00 AM	6/18/2025	64.7	82.0	53.4
10:00 AM	6/18/2025	66.9	93.1	53.5
11:00 AM	6/18/2025	64.7	86.6	53.5
12:00 PM	6/18/2025	65.4	87.1	52.9
1:00 PM	6/18/2025	65.0	82.8	52.6
2:00 PM	6/18/2025	64.6	80.5	53.5
3:00 PM	6/18/2025	64.8	83.5	53.3

Source: Compiled by LSA Associates, Inc. (2025).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: 20241643
Project Name: Tower District Specific Plan

Test Personnel: Moe Abushanab
Equipment: LD 706RC Spark (SN:17815)

Site Number: LT-2 Date: 6/17/2025

Time: From 5:00 p.m. To 5:00 p.m.

Site Location: 1599 North Calaveras Street. On a pole in the alleyway. Approximately 85 ft from from East McKinley Avenue centerline.

Primary Noise Sources: Traffic on E McKinley Avenue and Blackstone Avenue
Occasional train passby and crossing noise. Occasional aircraft noise.

Comments:

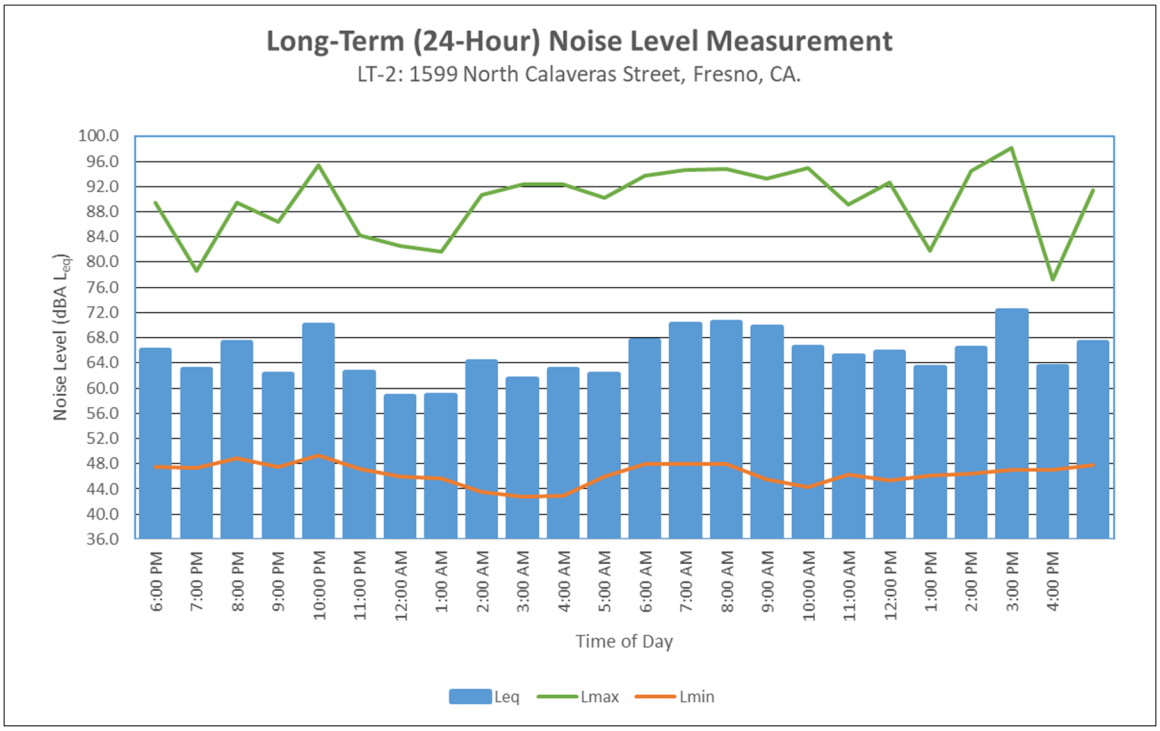
Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-2

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
5:00 PM	6/17/2025	66.1	89.4	47.5
6:00 PM	6/17/2025	63.0	78.6	47.3
7:00 PM	6/17/2025	67.2	89.4	48.8
8:00 PM	6/17/2025	62.2	86.4	47.5
9:00 PM	6/17/2025	70.0	95.4	49.4
10:00 PM	6/17/2025	62.5	84.3	47.2
11:00 PM	6/17/2025	58.7	82.6	45.9
12:00 AM	6/18/2025	58.9	81.6	45.7
1:00 AM	6/18/2025	64.2	90.7	43.5
2:00 AM	6/18/2025	61.5	92.4	42.7
3:00 AM	6/18/2025	62.9	92.3	42.9
4:00 AM	6/18/2025	62.2	90.2	46.0
5:00 AM	6/18/2025	67.6	93.7	48.0
6:00 AM	6/18/2025	70.1	94.6	48.0
7:00 AM	6/18/2025	70.4	94.8	47.9
8:00 AM	6/18/2025	69.6	93.3	45.5
9:00 AM	6/18/2025	66.4	94.9	44.3
10:00 AM	6/18/2025	65.1	89.1	46.3
11:00 AM	6/18/2025	65.8	92.6	45.4
12:00 PM	6/18/2025	63.3	81.8	46.2
1:00 PM	6/18/2025	66.4	94.5	46.5
2:00 PM	6/18/2025	72.3	98.2	47.0
3:00 PM	6/18/2025	63.4	77.2	47.1
4:00 PM	6/18/2025	67.3	91.4	47.8

Source: Compiled by LSA Associates, Inc. (2025).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: 20241643
Project Name: Tower District Specific Plan

Test Personnel: Moe Abushanab
Equipment: LD 706RC Spark (SN:18906)

Site Number: LT-3 Date: 6/17/2025

Time: From 5:00 p.m. To 5:00 p.m.

Site Location: 244 West Princeton Avenue. On a tree. Approximately 20 ft away from North Arthur Avenue centerline. At the northeast corner of North Arthur Avenue and West Princeton Avenue.

Primary Noise Sources: Very light traffic on West Princeton Avenue and North Arthur Avenue. Occasional aircraft noise.

Comments:

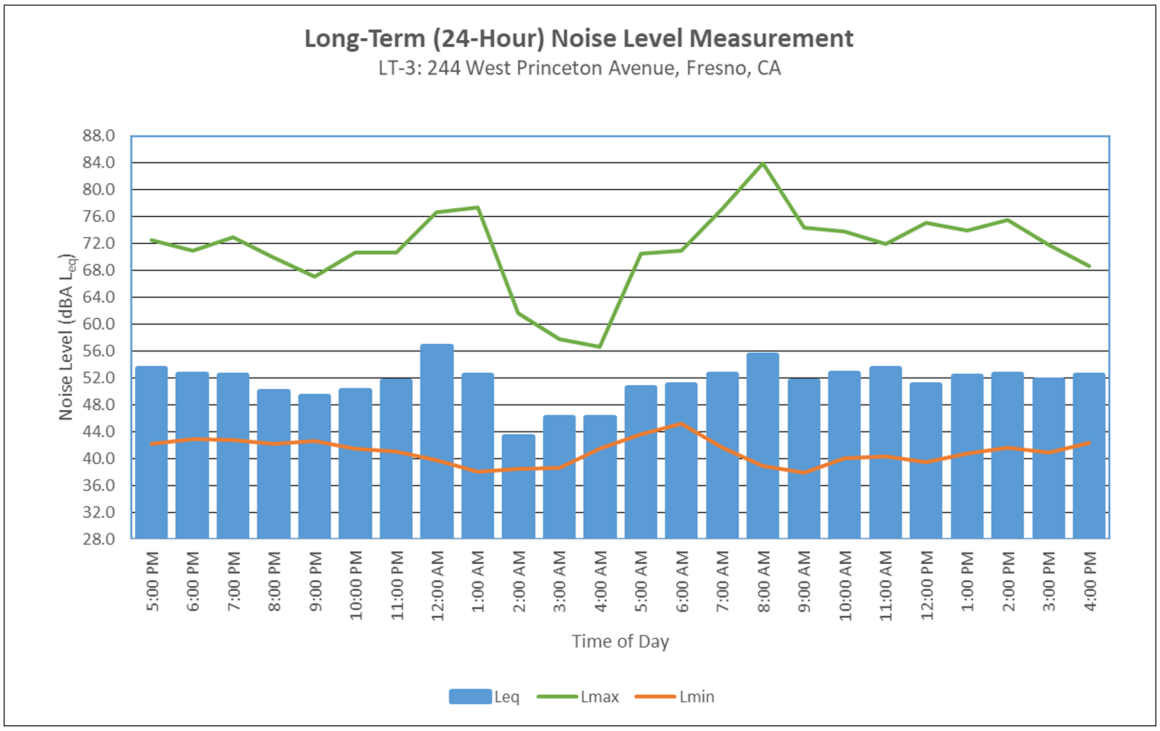
Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-3

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
5:00 PM	6/17/2025	53.5	72.6	42.2
6:00 PM	6/17/2025	52.5	71.0	43.0
7:00 PM	6/17/2025	52.5	73.0	42.8
8:00 PM	6/17/2025	50.0	69.9	42.2
9:00 PM	6/17/2025	49.4	67.1	42.6
10:00 PM	6/17/2025	50.2	70.6	41.5
11:00 PM	6/17/2025	51.6	70.6	41.1
12:00 AM	6/18/2025	56.7	76.7	39.8
1:00 AM	6/18/2025	52.4	77.4	38.0
2:00 AM	6/18/2025	43.3	61.6	38.5
3:00 AM	6/18/2025	46.1	57.8	38.6
4:00 AM	6/18/2025	46.2	56.7	41.5
5:00 AM	6/18/2025	50.6	70.5	43.6
6:00 AM	6/18/2025	51.0	71.0	45.2
7:00 AM	6/18/2025	52.6	77.3	41.7
8:00 AM	6/18/2025	55.5	84.0	38.9
9:00 AM	6/18/2025	51.6	74.4	37.9
10:00 AM	6/18/2025	52.7	73.8	40.1
11:00 AM	6/18/2025	53.4	72.0	40.3
12:00 PM	6/18/2025	51.0	75.1	39.5
1:00 PM	6/18/2025	52.3	74.0	40.8
2:00 PM	6/18/2025	52.6	75.5	41.6
3:00 PM	6/18/2025	51.7	71.8	40.9
4:00 PM	6/18/2025	52.4	68.7	42.4

Source: Compiled by LSA Associates, Inc. (2025).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level



APPENDIX I

TRANSPORTATION MEMORANDUM

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

MEMORANDUM

DATE: July 31, 2025

TO: Sophia Pagoulatos; Planning Manager, City of Fresno

FROM: Ambarish Mukherjee, Principal/Managing Director of Mobility, LSA Associates

SUBJECT: Fresno Tower District Specific Plan Update Trip Generation and Vehicle Miles Traveled Analysis Memorandum (LSA Project # 20241643)

LSA has prepared this Trip Generation Analysis and Vehicle Miles Traveled Analysis Memorandum (Memo) documenting the methodology and findings of the anticipated project trip generation and Vehicle Miles Traveled (VMT) for the proposed Tower District Specific Plan Update (TDSP) (project/specific plan) in the City of Fresno (City). Additionally, this Memo also establishes the requirements of further transportation related analysis, including Transportation Impact Study (TIS) or level of Service (LOS) analysis for the proposed specific plan.

The Tower District is an approximately 1,869-acre area located north of Downtown Fresno and the State Route (SR) 180, and one mile east of the SR-99 corridor. The District is generally bound by Shields Avenue to the north, Blackstone Avenue to the east, SR-180 to the south, and Fruit Avenue and the Union Pacific Railroad tracks to the west. Figure 1, Regional Location and Local Vicinity Map, shows the District in its regional context. Figure 2, Project Location, shows the location of the District within the City.

BACKGROUND AND PROJECT UNDERSTANDING

The Tower District Specific plan was previously developed and adopted by the City in 1991. Most of the area within the Specific Plan has already been developed and is not expected to change. However, the Specific Plan highlights underutilized sites located along the District's commercial corridors. As such, the Specific Plan Update promotes more mixed-use development along commercial corridors by creating corridor/center mixed use and neighborhood mixed use areas, specifically on Blackstone Avenue and Shields Avenue focusing on vacant or underutilized areas/parcels. This would allow for more residential development compared to what has been proposed in the adopted specific plan. Additionally, these changes would affect other non-residential land uses as well, given the promotion of neighborhood mixed use and corridor/center mixed use designations within the specific plan area. Figure 3 illustrates the land use designations of the adopted specific plan. Figure 4 illustrates the proposed land uses in the proposed specific plan.

Table A provides a summary of development capacity based on the adopted specific plan for each of the land use designations generally present within the specific plan area. Table B provides the corresponding summary of potential development capacity under the proposed specific plan. Table C provides a summary of new housing units and commercial development under the complete built-

out scenario of the two iterations of the specific Plan. As shown in Table C, the Specific Plan Update is estimated to result in 537 additional dwelling units and a reduction of 18,800 square feet of commercial spaces.

Table A: Development Capacity by Adopted Specific Plan Land Use Designation-Vacant and Underutilized Sites

Existing Land Use Designation	*Vacant and Underutilized Land (acres)*	*Existing Units*	*Projected New Units (gross)*	*Projected New Units (net)*	*Existing Non-Residential Floor Area*	*Projected New Non-Residential Floor Area (gross)*	*Projected New Non-Residential Floor Area (net)*
Residential							
Residential Medium Low	0.0	-	-	-	0	-	-
Residential Medium Density	5.1	-	45	45	2,000	-	-2,000
Residential Medium High	1.2	-	19	19	0	-	-
Residential Urban Neighborhood	0.3	-	8	8	0	-	-
Residential High Density	0.0	-	-	-	0	-	-
Mixed Use							
Neighborhood Mixed Use	9.1	9	579	570	55,808	157,687	101,879
Corridor/Center Mixed Use	-	-	-	-	-	-	-
Commercial							
Commercial Main Street	33.7	44	1,619	1,575	257,420	587,649	330,229
Commercial Community	7.2	0	-	-	49,696	188,179	138,483
Commercial General	1.0	0	-	-	3,250	16,901	13,651
Employment							
Employment Office	0.0	0	-	-	0	-	-
Employment Light Industrial	13.1	6	-	-6	138,558	456,143	317,585
Public Facilities	0.0	0	-	-	0	-	-
Total	**70.6**	**59**	**2,271**	**2,212**	**506,732**	**1,406,560**	**899,928**

Table B: Development Capacity by Proposed Specific Plan Land Use Designation-Vacant and Underutilized Sites

Existing Land Use Designation	*Vacant and Underutilized Land (acres)*	*Existing Units*	*Projected New Units (gross)*	*Projected New Units (net)*	*Existing Non-Residential Floor Area*	*Projected New Non-Residential Floor Area (gross)*	*Projected New Non-Residential Floor Area (net)*
Residential							
Residential Medium Low	0.0	-	-	-	0	-	-
Residential Medium Density	5.1	-	45	45	2,000	-	-
Residential Medium High	1.2	-	19	19	0	-	-
Residential Urban Neighborhood	0.3	-	8	8	0	-	-
Residential High Density	0.0	-	-	-	0	-	-
Mixed Use							
Neighborhood Mixed Use	6.8	0	437	437	46,672	119,006	72,334
Corridor/Center Mixed Use	8.8	9	659	650	55,808	191,446	135,638
Commercial							
Commercial Main Street	34.1	44	1,639	1,595	257,420	594,792	337,372
Commercial Community	0.9	0	-	-	6,274	24,306	18,032
Commercial General	0.0	0	-	-	0	-	-
Employment							
Employment Office	0.0	0	-	-	0	-	-
Employment Light Industrial	13.1	6	-	-6	138,558	456,143	317,585
Public Facilities	0.0	0	-	-	0	-	-
Total	**70.3**	**59**	**2,807**	**2,748**	**506,732**	**1,385,694**	**880,962**

Table C: Projected New Development Capacity - Vacant and Underutilized Sites

Tower District Specific Plan Area	*Existing Units*	*Projected New Units (gross)*	*Projected New Units (net)*	*Existing Non-Residential Floor Area*	*Projected New Non-Residential Floor Area (gross)*	*Projected New Non-Residential Floor Area (net)*
Existing Land Use Designations	59	2,271	2,212	506,732	1,406,600	899,800
Proposed Land Use Designations	59	2,807	2,748	506,732	1,385,700	881,000
Change	**-**	**537**	**537**	**-**	**-20,900**	**-18,800**

Because of this change in specific plan land uses, the proposed specific plan would be inconsistent with the City's currently adopted General Plan and may result in additional traffic that may require further in-depth project level TIS or LOS analysis per the City's General Plan Mobility and Circulation Element. Additionally, the changes may result in California Environmental Quality Act (CEQA) VMT impacts. Therefore, this Memo evaluates the following:

- Whether these changes in land uses within the specific plan is anticipated to generate significantly more traffic compared to the adopted specific plan and be required to prepare a TIS or LOS analysis to determine potential traffic related operational deficiencies and improvements, California Department of Transportation (Caltrans) facility analysis; and

- Whether these changes would result in any VMT impact for the specific plan.

PROJECT TRIP GENERATION ANALYSIS

To determine whether the Specific Plan Update would result in a requirement for preparation of a TIS or LOS analysis, a trip generation comparison analysis was conducted. The land use quantities for projected new units (for residential uses) and areas (non-residential uses) under the adopted specific plan and the proposed specific plan, as detailed in Tables A and B were utilized to determine the future traffic generation potential for the adopted and proposed specific plan. Trip generation for the adopted specific plan was developed using trip rates for appropriate land use codes included in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition), Setting/Location - 'General Urban/Suburban.' Table D summarizes the trip generation of the adopted specific plan. As shown in Table D, the adopted specific plan is anticipated to generate 36,054 net new daily trips, with 2,581 a.m. peak hour trips and 3,720 p.m. peak hour trips.

Similarly, trip generation for the proposed specific plan was also developed using trip rates for appropriate land use codes included in the ITE *Trip Generation Manual* (11th Edition), Setting/Location - 'General Urban/Suburban.' Table E summarizes the potential trip generation of

the proposed specific plan. As shown in Table E, the proposed specific plan is anticipated to generate 39,055 net new daily trips, with 2,752 a.m. peak hour trips and 3,919 p.m. peak hour trips. Table F summarizes the trip generation difference between the adopted and proposed specific plan. As shown in Table F, the proposed Specific Plan would generate 3,001 additional daily trips, including 171 additional a.m. peak hour trips and 199 additional p.m. peak hour trips compared to the adopted specific plan.

City of Fresno Circulation Analysis Requirements

Since the proposed specific plan is anticipated to generate some additional trips compared to the adopted specific plan, further policy-based evaluation was conducted to determine the requirements for a TIS.

The requirement of TIS, or LOS analysis, is typically derived from the individual jurisdictions' general plan circulation and mobility element, which includes goals and policies related to regional transportation efficiency and LOS standards. Therefore, the City's General Plan Policy document (*City of Fresno General Plan*, adopted December 2014), was evaluated to determine the goals and policy-based recommendations.

The City's Mobility and Circulation Policy MT-2-I is the principal determinant policy for requirement of a TIS. As recommended in Policy MT-2-I, the requirement of TIS is dependent on the project's location in the types of Traffic Impact Zones (TIZ) and number of peak hour trips. As such, the following are the TIS peak hour trip and LOS standard requirements for all four types of TIZ:

- **TIZ I**: Downtown Planning Area: Maintain a peak hour LOS standard of F and better for intersections and roadway segments. Projects with 200 or more peak hour trips would require a TIS.

- **TIZ II**: Currently Developed and Encourage Infill: Maintain a peak hour LOS standard of E and better for intersections and roadway segments. Projects with 200 or more peak hour trips would require a TIS. Per Figure MT-4 of the City's General Plan Mobility and Circulation element, the TDSP is within TIZ II, and the specific plan update would be required to follow these thresholds.

- **TIZ III**: Areas adjacent to City boundaries but within Sphere of Influence: Maintain a peak hour LOS standard of D and better for intersections and roadway segments. Projects with more than 100 peak hour trips would require a TIS.

- **TIZ IV**: Southern Employment Areas within and planned by the City: Maintain a peak hour LOS standard of E and better for intersections and roadway segments. Projects with 200 or more peak hour trips would require a TIS.

As previously noted, the Tower District is located within TIZ II. Additionally, the proposed update is anticipated to generate a maximum of 199 additional peak hour trips compared to the adopted specific plan, which is less than the 200 peak hour trip threshold requirement for TIS or detailed LOS analysis. As such, given the specific plan update would result in less than 200 additional peak hour

trips compared to the adopted specific plan, a TIS may not be required for the Specific Plan Update Project per the City's General Plan goals and policies.

However, it should be noted that though the specific plan update may not require any in-depth LOS analysis as a programmatic level, individual future projects within the specific plan area, that meets the requirements for a TIS or a detailed LOS analysis, would be required to conduct such studies at a project level to determine the individual project related potential operational deficiencies, and recommend/implement operational improvements for eliminating such operational deficiencies.

Caltrans Circulation Analysis Requirements

The Tower District is located close to SR-99, SR-180, and SR-41, and could be directly accessed via SR-180/Maroa-Van Ness interchange and SR-180/Blackstone-Abby Street interchange. As such, trip intensive land uses within the specific plan area have the potential to add traffic to all these Caltrans facilities and result in/add to operational deficiencies at these facilities.

However, as previously shown, the specific plan update cumulatively generates less than 200 additional peak hour trips. These additional trips are estimated to be spread throughout the specific plan area, using both freeway and other highways and arterials to other destinations in the region. As such, the specific plan update is estimated to add nominal additional peak hour trips to the Caltrans facilities and is not estimated to result any freeway LOS or queuing related operational deficiencies than what was analyzed under the adopted specific plan, and thereby, the regional Long Range Transportation Plan.

In addition, as previously stated, the specific plan update is a programmatic analysis. Individual future projects within the specific plan area would be required to conduct further analysis at a project level to determine the individual project related potential operational deficiencies and recommend/implement operational improvements for eliminating such operational deficiencies, including any City, Caltrans, or adjacent jurisdictions. As such, for all future land use projects that may affect Caltrans' facilities, a safety analysis may be required to be prepared in accordance with Caltrans' *Local Development and Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance*, dated February 2024, or the latest edition, unless they meet the LDIGR screening criteria.

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 LOS from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's/plan's effect on VMT.

Since the project is a specific plan, it qualifies as a land use plan. Therefore, the project's VMT analysis needs to be prepared using the criteria set forth in the City's *CEQA Guidelines for VMT Thresholds* (VMT Guidelines) adopted June 25, 2020, for land use plans. The City's VMT Guidelines require that for land use plans, the project's VMT per capita or/and VMT per employee under forecast/cumulative scenario be compared to the corresponding base year VMT per capita/employee to determine whether the project would have a significant VMT impact.

The Fresno Council of Governments (Fresno COG) Activity Based Model (ABM) has been used to determine VMT impact of the proposed changes. The following is a detailed description of the analysis conducted for this project:

Project Traffic Analysis Zone Update

The first step in preparation for this analysis was to update the traffic analysis zones (TAZs) in the model that includes the land use changes within the TDSP area. The Tower District comprises of approximately 22 model TAZs. It is estimated that the adopted specific plan is considered built out in the model future scenario, and the socioeconomic data within the Tower District TAZs reflect the adopted specific plan build-out condition.

As previously mentioned, the majority of the upzoning and the land-use changes are on Blackstone Avenue and Shields Avenue focusing on vacant or underutilized areas/parcels. As such, these changes are concentrated on selected TAZs within the TDSP area. As such, the next step of the analysis was to incorporate the proposed changes in the specific plan. The current project proposes changes in vacant and underutilized parcels identified as part of the capacity analysis. These parcels where land use designation change is proposed as part of the project were spatially overlayed with the Fresno COG ABM TAZ boundary to identify the corresponding ABM TAZs in the model. It was determined that these changes are included in 10 TAZs within the TDSP area.

The land use zoning information for these areas or parcels, under the adopted and proposed specific plan were obtained from the Specific Plan document. The land uses for these specific areas were converted into model socioeconomic categories using appropriate land use to socioeconomic conversion factors. Upon conversion of the land uses to appropriate socioeconomic data, these changes were added/subtracted from the existing socioeconomic data within the model data set for these TAZs. This updated model reflects the proposed Specific plan in its built-out condition. Since no roadway network changes are being proposed as part of this project, no roadway network was updated for this analysis

Project VMT Analysis

Upon completion of the socioeconomic data updates a model run was conducted for the proposed horizon year/cumulative (2046) with project scenario. The model run outputs were used to develop project VMT for the with project conditions.

As previously stated, for land use plans, the City's VMT Guidelines recommend using VMT per capita to evaluate residential land uses and VMT per employee to evaluate non-residential land uses. As previously stated, the project would result in 537 new dwelling units, and a reduction in 18,800 sf retail/commercial spaces. Given the nominal reduction in retail/commercial compared to the allowable commercial/retail within the TDSP, this reduction was estimated to reduce nominal employment and retail opportunities and not estimated to change in VMT per employee metric for the entire specific plan area. Therefore, though the model was updated to reflect the changes in commercial/retail land uses prior to model run, no VMT per employee metric was calculated. The VMT per capita value was calculated for the entire Tower District Specific Plan area. VMT metrics for Fresno COG ABM include two components, internal-internal (II) and internal-external/external-

internal (IX/XI) VMT. Both II VMT and IX/XI VMT were included in the estimation of overall project VMT per capita.

Table G shows the regional threshold and project VMT per capita rate for the project. As shown in Table G, the project would not constitute any significant VMT impact. Detailed VMT calculation for the project is included in Appendix A.

Table G: Regional Threshold and Project VMT per Capita Comparison

VMT Metric	Tower District Specific Plan (project)	Significant Threshold *	Difference	Significant Impact
VMT per capita	11.4	14.0	(2.6)	**NO**

Source: Fresno COG ABM
**Threshold obtained from City of Fresno CEQA Guidelines for VMT Thresholds, June 25, 2020 (87% of existing County average)*
***VMT per capita estimate includes internal-internal (II) and internal-external (IX) VMT*

SUMMARY AND CONCLUSION

The Tower District Specific Plan Update Project would result in an increase of 537 residential dwelling units and a total reduction of 18,800 square feet commercial/retail areas. Given the location of the District being in TIZ II, and the specific plan update would generate less than 200 additional peak hour trips, a TIS may not be required. However, individual projects would be required to complete a CEQA TIS and other transportation related operational and safety analysis per City's, Caltrans' and neighboring jurisdiction's requirements for such studies.

Additionally, the project is not estimated to constitute any significant VMT impact. Therefore, no CEQA VMT related mitigation will be required for the project.

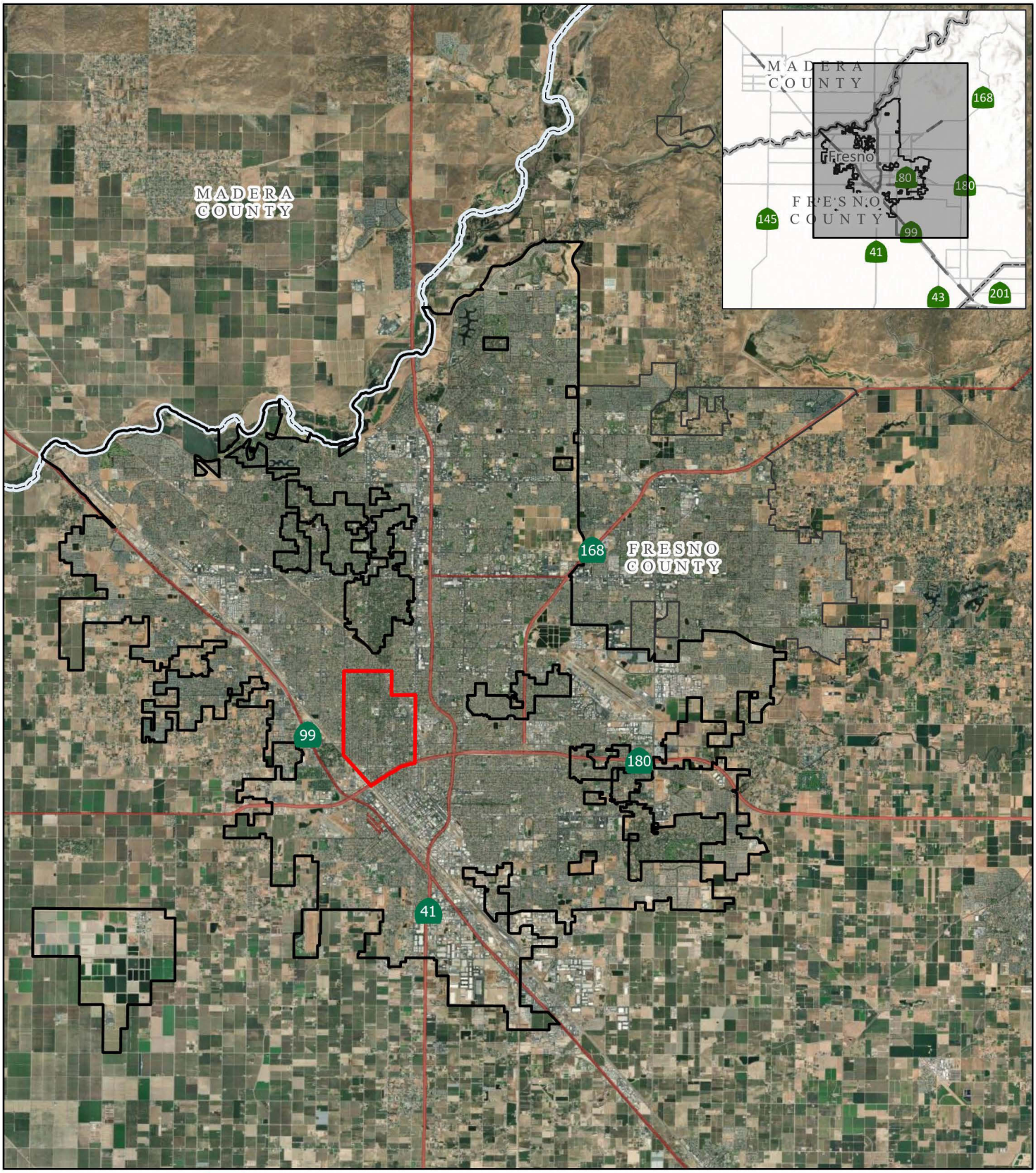
Attachment:

Figure 1: Regional Location and Project Vicinity
Figure 2: Project Location
Figure 3: Adopted Specific Plan Land Use
Figure 4: Proposed Specific Plan Land Use

Table D: Adopted Specific Plan Trip Generation (Projected New Units and Areas)
Table E: Proposed Specific Plan Trip Generation (Projected New Units and Areas)
Table F: Trip Generation Difference between Adopted and Proposed Specific Plan

Appendix A: VMT Calculation Worksheet

FIGURES



LSA

Tower District Boundary
County Boundary
City of Fresno
City of Clovis

FIGURE 1

N

0 7500 15000
FEET

SOURCE: Esri World Imagery (2025)

Tower District Specific Plan Update

Regional Location and Local Vicinity

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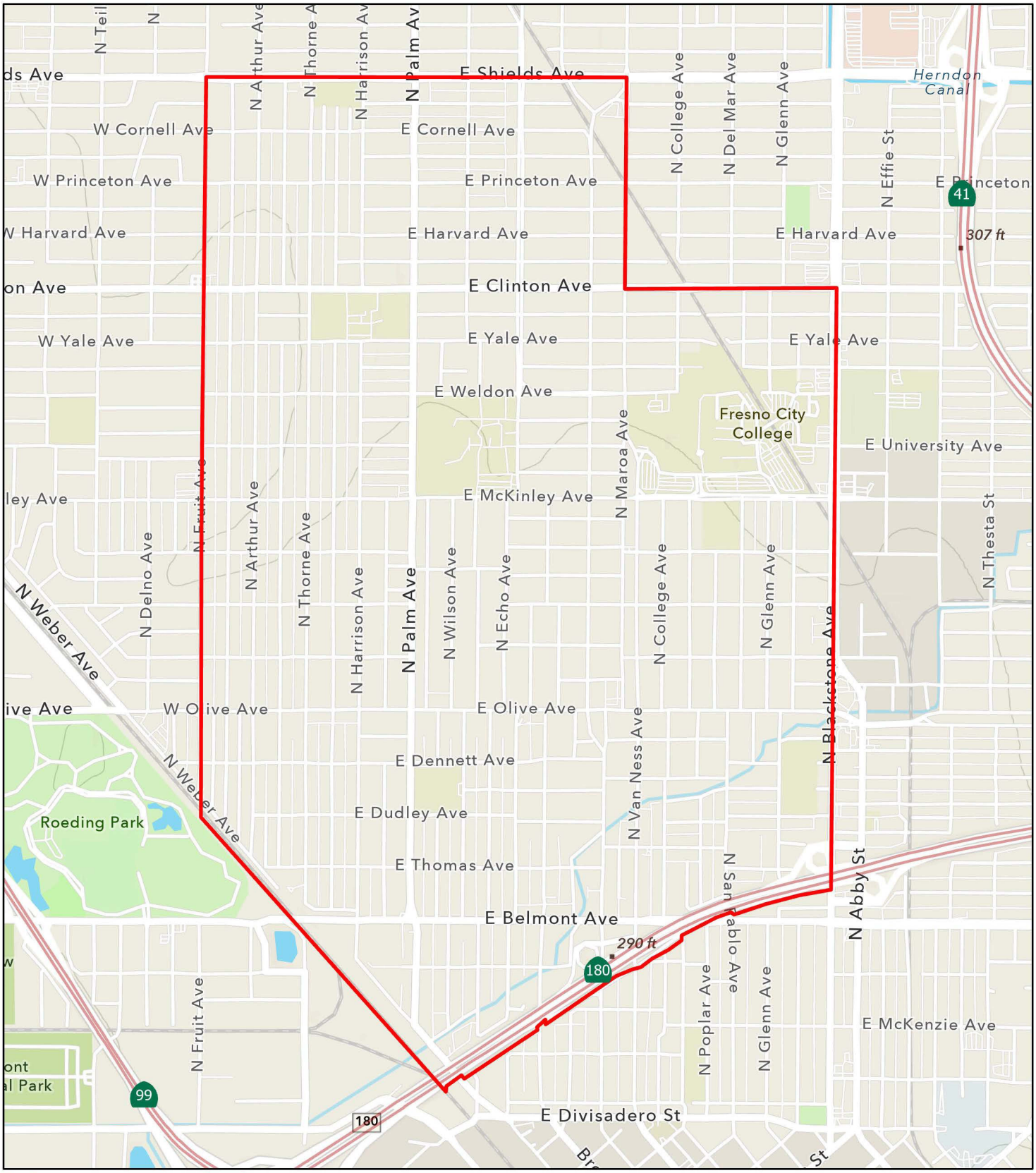

LSA

Tower District Boundary

FIGURE 2

0 850 1700
FEET

SOURCE: Esri Outdoor Contour Map (2025)

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Tower District Specific Plan Update

Project Location

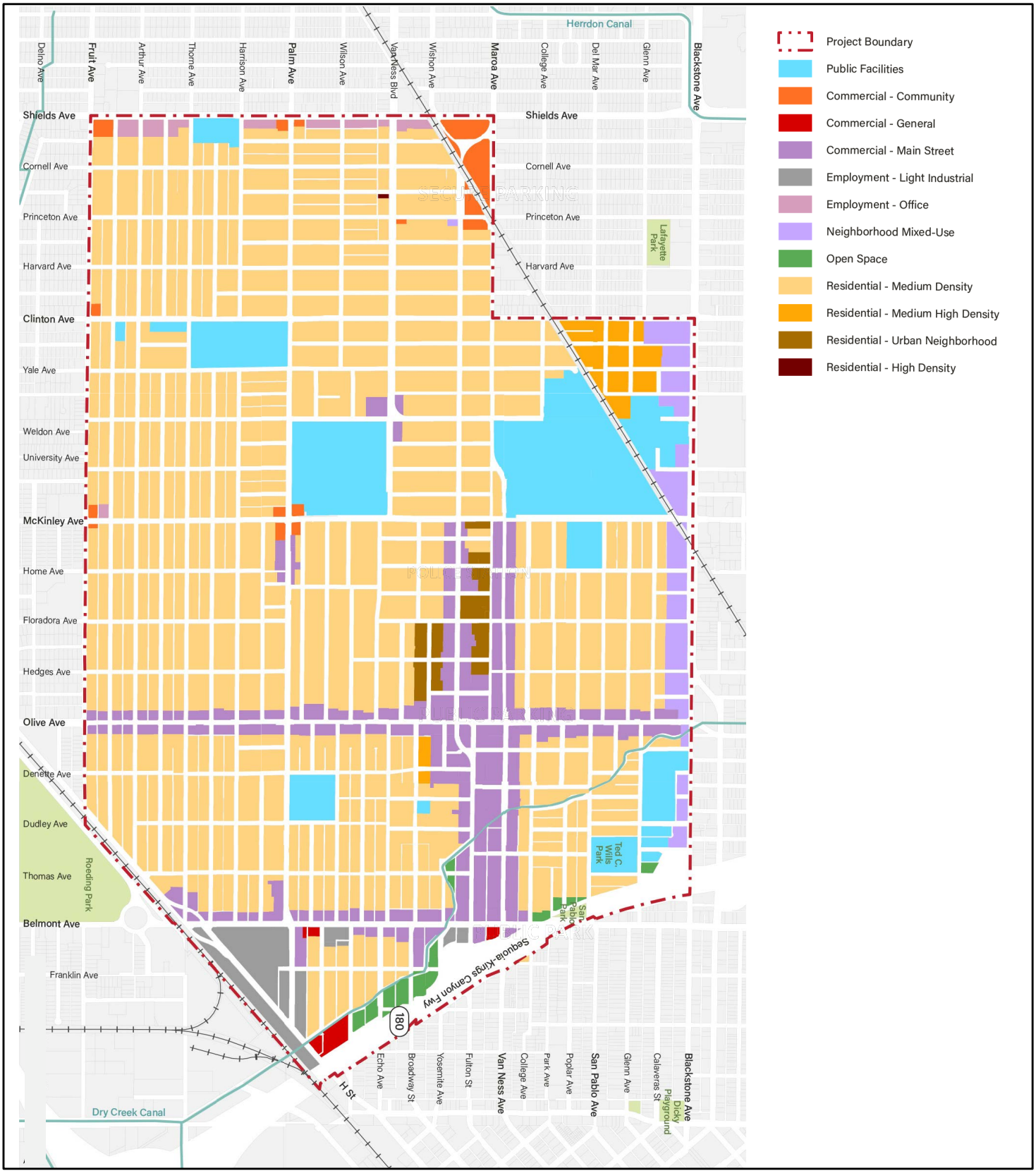

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FIGURE 3

N

0 0.2 0.4
MILES

Tower District Specific Plan Update

Adopted Specific Plan Land Uses

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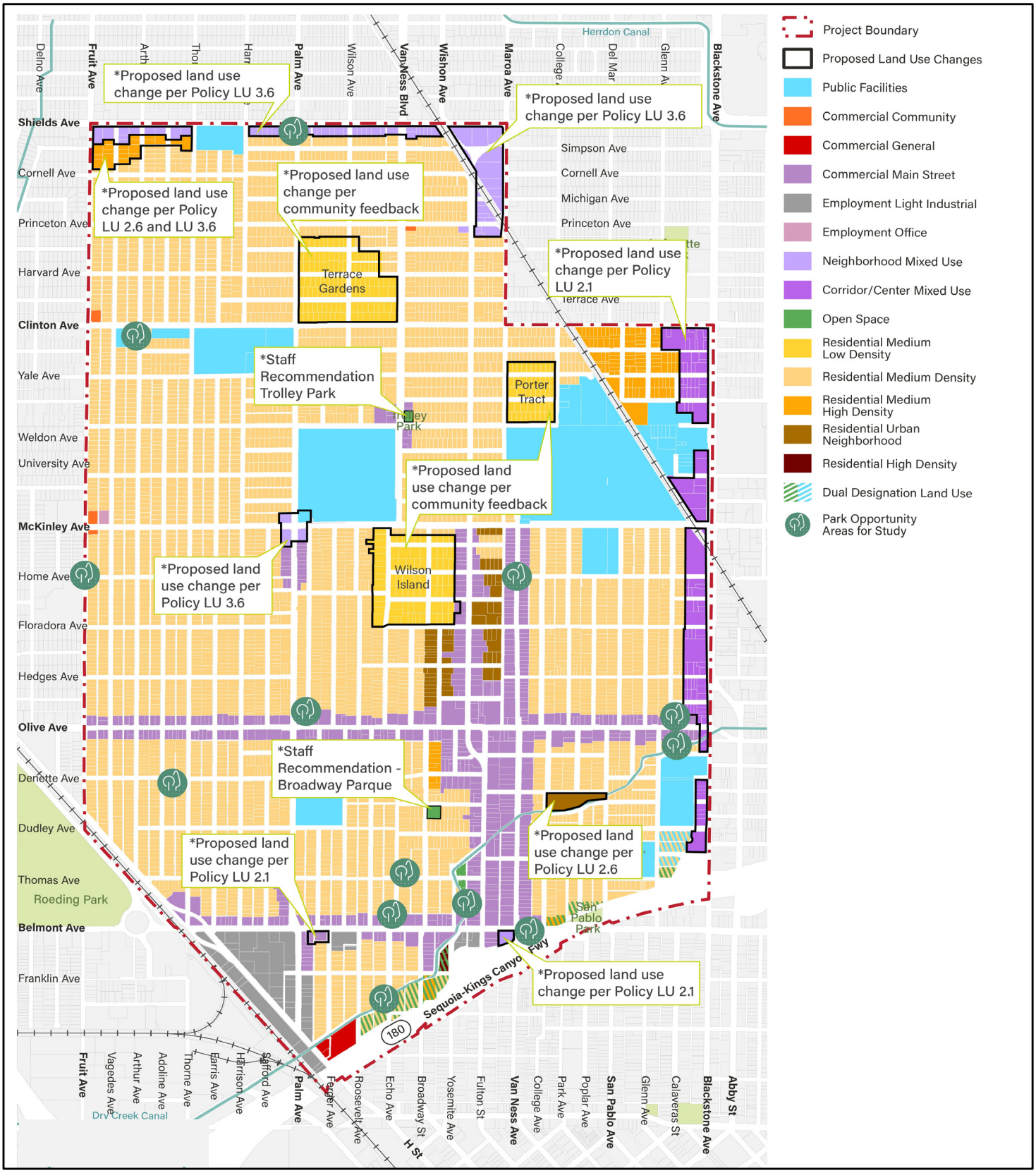

LSA

FIGURE 4

Tower District Specific Plan Update

Proposed Specific Plan Land Uses

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TABLES

LSA

Table D: Adopted Specific Plan Trip Generation (Projected New Units and Areas)

ID	Land Use Designation	Units		A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
1.	**Residential Medium Low Density**									
	Tower District									
	Single-Family Detached Housing	0	DU							
	Trips/Unit[1]			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			0	0	0	0	0	0	0
2.	**Residential Medium Density**									
	Tower District									
	Single-Family Detached Housing	45	DU							
	Trips/Unit[1]			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			8	23	31	27	16	43	424
	Strip Retail Plaza (<40k)	(2.000)	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			(3)	(2)	(5)	(7)	(7)	(14)	(109)
	Pass-by Trips[3]			0	0	0	3	3	6	44
	Net New Trips			(3)	(2)	(5)	(4)	(4)	(8)	(65)
3.	**Residential Medium High Density**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	19	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			2	6	8	6	4	10	128
4.	**Residential Urban Neighborhood**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	8	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			1	2	3	3	2	5	54
5.	**Residential High Density**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	0	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			0	0	0	0	0	0	0
6.	**Neighborhood Mixed Use**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	570	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			57	171	228	182	108	290	3,842
	Strip Retail Plaza (<40k)	101.879	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			145	96	241	336	335	671	5,547
	Pass-by Trips[3]			0	0	0	(134)	(134)	(268)	(2,219)
	Net New Trips			145	96	241	202	201	403	3,328
7.	**Corridor/Center Mixed Use**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	0	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			0	0	0	0	0	0	0
	Strip Retail Plaza (<40k)	0.000	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			0	0	0	0	0	0	0
	Pass-by Trips[3]			0	0	0	0	0	0	0
	Net New Trips			0	0	0	0	0	0	0

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Table D: Adopted Specific Plan Trip Generation (Projected New Units and Areas)

ID	Land Use Designation	Units		A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
8.	**Commercial Main Street**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	1575	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			158	473	631	504	299	803	10,616
	Strip Retail Plaza (<40k)	330.229	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			469	310	779	1,090	1,086	2,176	17,981
	Pass-by Trips[3]			0	0	0	(436)	(434)	(870)	(7,192)
	Net New Trips			469	310	779	654	652	1,306	10,789
9.	**CommercialCommunity**									
	Tower District									
	Strip Retail Plaza (<40k)	138.483	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			197	130	327	457	456	913	7,540
	Pass-by Trips[3]			0	0	0	(183)	(182)	(365)	(3,016)
	Net New Trips			197	130	327	274	274	548	4,524
10.	**Commercial General**									
	Tower District									
	Strip Retail Plaza (<40k)	13.651	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			19	13	32	45	45	90	743
	Pass-by Trips[3]			0	0	0	(18)	(18)	(36)	(297)
	Net New Trips			19	13	32	27	27	54	446
11.	**Employment Office**									
	Tower District									
	General Office Building	0	TSF							
	Trips/Unit[5]			1.34	0.18	1.52	0.24	1.20	1.44	10.84
	Trip Generation			0	0	0	0	0	0	0
12.	**Employment Light Industrial**									
	Tower District									
	General Light Industrial	317.585	TSF							
	Trips/Unit (Cars)			0.512	0.070	0.582	0.072	0.439	0.511	3.828
	Trips/Unit (2-Axle Trucks)			0.031	0.021	0.052	0.023	0.023	0.045	0.390
	Trips/Unit (3-Axle Trucks)			0.017	0.011	0.028	0.012	0.012	0.025	0.190
	Trips/Unit (4+ Axle Trucks)			0.047	0.031	0.078	0.034	0.034	0.069	0.463
	Trips/Unit (Total)[6]			0.65	0.089	0.740	0.091	0.559	0.650	4.870
	Total Truck Trip Generation			30	20	50	22	22	44	331
	Auto Trips			163	22	185	23	139	162	1,216
	Truck PCE Trips			75	50	125	55	55	110	809
	Total PCE Trip Generation			238	72	310	78	194	272	2,025
	Single-Family Detached Housing	(6)	DU							
	Trips/Unit[1]			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			(1)	(3)	(4)	(4)	(2)	(6)	(57)

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Table D: Adopted Specific Plan Trip Generation (Projected New Units and Areas)

ID	Land Use Designation	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
13 .	**Public Facilities**								
	Tower District								
	Fire and Rescue Station	0.000 TSF							
	Trips/Unit[7]		0.14	0.34	0.48	0.14	0.34	0.48	4.80
	Trip Generation		0	0	0	0	0	0	0
	Gross Trip Generation (PCE)		**1,290**	**1,291**	**2,581**	**2,717**	**2,536**	**5,253**	**48,734**
	Pass-By Trips		**0**	**0**	**0**	**(768)**	**(765)**	**(1,533)**	**(12,680)**
	Total Net Trip Generation (PCE)		**1,290**	**1,291**	**2,581**	**1,949**	**1,771**	**3,720**	**36,054**

Notes:

DU = Dwelling Units; TSF = Thousand Square Feet;

[1] Rates from Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition) for Land Use 210 - "Single-Family Detached Housing" , Setting/Location - 'General Urban/Suburban'.

[2] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 822 - "Strip Retail Plaza (<40k)" , Setting/Location - 'General Urban/Suburban'.

[3] Pass-by rates from the ITE Trip Generation Manual (11th Edition) for Land Use 822 - 'Strip Retail Plaza (<40k).' A pass-by rate of 40% was used for the p.m. peak hour. Since daily pass-by rates are not available for this land use in the ITE Trip Generation Manual, the p.m. pass-by rate was used as the daily pass-by rate.

[4] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 220 - "Multifamily Housing (Low-Rise) Not Close to Rail Transit" , Setting/Location - 'General Urban/Suburban'.

[5] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 221 - "Multifamily Housing (Mid-Rise) Not Close to Rail Transit" , Setting/Location - 'General Urban/Suburban'.

[6] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 710 - "General Office Building" , Setting/Location - 'General Urban/Suburban'.

[7] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 110 - "General Light Industrial " , Setting/Location - 'General Urban/Suburban'.The resulting trips were converted to passenger vehicles and trucks based on the City of Fontana Truck Trip Generation Study, dated August 2003. As such, 21.4 percent of the traffic will be trucks. Trucks were further classified as 2, 3, and 4 - and more axle and converted to passenger car equivalents (PCEs) using a PCE factor of 2 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4- and more axle trucks.

[8] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 575 - "Fire and Rescue Station" , Setting/Location - 'General Urban/Suburban'.

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Table E: Proposed Specific Plan Trip Generation (Projected New Units and Areas)

ID	Land Use Designation	Units		A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
1.	**Residential Medium Low Density**									
	Tower District									
	Single-Family Detached Housing	0	DU							
	Trips/Unit[1]			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			0	0	0	0	0	0	0
2.	**Residential Medium Density**									
	Tower District									
	Single-Family Detached Housing	45	DU							
	Trips/Unit[1]			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			8	23	31	27	16	43	424
	Strip Retail Plaza (<40k)	0.000	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			0	0	0	0	0	0	0
	Pass-by Trips[3]			0	0	0	0	0	0	0
	Net New Trips			0	0	0	0	0	0	0
3.	**Residential Medium High Density**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	19	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			2	6	8	6	4	10	128
4.	**Residential Urban Neighborhood**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	8	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			1	2	3	3	2	5	54
5.	**Residential High Density**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	0	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			0	0	0	0	0	0	0
6.	**Neighborhood Mixed Use**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	437	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			44	131	175	140	83	223	2,945
	Strip Retail Plaza (<40k)	72.334	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			103	68	171	239	238	477	3,939
	Pass-by Trips[3]			0	0	0	(96)	(95)	(191)	(1,576)
	Net New Trips			103	68	171	143	143	286	2,363
7.	**Corridor/Center Mixed Use**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	650	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			65	195	260	208	124	332	4,381
	Strip Retail Plaza (<40k)	135.638	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			193	127	320	448	446	894	7,385
	Pass-by Trips[3]			0	0	0	(179)	(178)	(358)	(2,954)
	Net New Trips			193	127	320	269	268	536	4,431

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Table E: Proposed Specific Plan Trip Generation (Projected New Units and Areas)

ID	Land Use Designation	Units		A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
8 .	**Commercial Main Street**									
	Tower District									
	Multifamily Housing (Low-Rise) Not Close to Rail Transit	1595	DU							
	Trips/Unit[4]			0.10	0.30	0.40	0.32	0.19	0.51	6.74
	Trip Generation			160	479	639	510	303	813	10,750
	Strip Retail Plaza (<40k)	337.372	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			479	317	796	1,113	1,110	2,223	18,370
	Pass-by Trips[3]			0	0	0	(445)	(444)	(889)	(7,348)
	Net New Trips			479	317	796	668	666	1,334	11,022
9 .	**CommercialCommunity**									
	Tower District									
	Strip Retail Plaza (<40k)	18.032	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			26	17	43	60	59	119	982
	Pass-by Trips[3]			0	0	0	(24)	(24)	(48)	(393)
	Net New Trips			26	17	43	36	35	71	589
10 .	**Commercial General**									
	Tower District									
	Strip Retail Plaza (<40k)	0.000	TSF							
	Trips/Unit[2]			1.42	0.94	2.36	3.30	3.29	6.59	54.45
	Trip Generation			0	0	0	0	0	0	0
	Pass-by Trips[3]			0	0	0	0	0	0	0
	Net New Trips			0	0	0	0	0	0	0
11 .	**Employment Office**									
	Tower District									
	General Office Building	0	TSF							
	Trips/Unit[5]			1.34	0.18	1.52	0.24	1.20	1.44	10.84
	Trip Generation			0	0	0	0	0	0	0
12 .	**Employment Light Industrial**									
	Tower District									
	General Light Industrial	317.585	TSF							
	Trips/Unit (Cars)			0.512	0.070	0.582	0.072	0.439	0.511	3.828
	Trips/Unit (2-Axle Trucks)			0.031	0.021	0.052	0.023	0.023	0.045	0.390
	Trips/Unit (3-Axle Trucks)			0.017	0.011	0.028	0.012	0.012	0.025	0.190
	Trips/Unit (4+ Axle Trucks)			0.047	0.031	0.078	0.034	0.034	0.069	0.463
	Trips/Unit (Total)[6]			0.65	0.089	0.740	0.091	0.559	0.650	4.870
	Total Truck Trip Generation			30	20	50	22	22	44	331
	Auto Trips			163	22	185	23	139	162	1,216
	Truck PCE Trips			75	50	125	55	55	110	809
	Total PCE Trip Generation			238	72	310	78	194	272	2,025
	Single-Family Detached Housing	(6)	DU							
	Trips/Unit[1]			0.18	0.52	0.70	0.59	0.35	0.94	9.43
	Trip Generation			(1)	(3)	(4)	(4)	(2)	(6)	(57)

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Table E: Proposed Specific Plan Trip Generation (Projected New Units and Areas)

ID	Land Use Designation	Units	A.M. Peak Hour In	A.M. Peak Hour Out	A.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out	P.M. Peak Hour Total	Daily
13 .	**Public Facilities**								
	Tower District								
	Fire and Rescue Station	0.000 TSF							
	Trips/Unit[7]		0.14	0.34	0.48	0.14	0.34	0.48	4.80
	Trip Generation		0	0	0	0	0	0	0
	Gross Trip Generation (PCE)		**1,318**	**1,434**	**2,752**	**2,828**	**2,577**	**5,405**	**51,326**
	Pass-By Trips		**0**	**0**	**0**	**(744)**	**(741)**	**(1,486)**	**(12,271)**
	Total Net Trip Generation (PCE)		**1,318**	**1,434**	**2,752**	**2,084**	**1,836**	**3,919**	**39,055**

Notes:

DU = Dwelling Units; TSF = Thousand Square Feet;

[1] Rates from Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition) for Land Use 210 - "Single-Family Detached Housing" , Setting/Location - 'General Urban/Suburban'.

[2] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 822 - "Strip Retail Plaza (<40k)" , Setting/Location - 'General Urban/Suburban'.

[3] Pass-by rates from the ITE Trip Generation Manual (11th Edition) for Land Use 822 - 'Strip Retail Plaza (<40k).' A pass-by rate of 40% was used for the p.m. peak hour. Since daily pass-by rates are not available for this land use in the ITE Trip Generation Manual, the p.m. pass-by rate was used as the daily pass-by rate.

[4] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 220 - "Multifamily Housing (Low-Rise) Not Close to Rail Transit" , Setting/Location - 'General Urban/Suburban'.

[5] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 221 - "Multifamily Housing (Mid-Rise) Not Close to Rail Transit" , Setting/Location - 'General Urban/Suburban'.

[6] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 710 - "General Office Building" , Setting/Location - 'General Urban/Suburban'.

[7] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 110 - "General Light Industrial " , Setting/Location - 'General Urban/Suburban'.The resulting trips were converted to passenger vehicles and trucks based on the City of Fontana Truck Trip Generation Study, dated August 2003. As such, 21.4 percent of the traffic will be trucks. Trucks were further classified as 2, 3, and 4- and more axle and converted to passenger car equivalents (PCEs) using a PCE factor of 2 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4- and more axle trucks.

[8] Rates from ITE Trip Generation Manual (11th Edition) for Land Use 575 - "Fire and Rescue Station" , Setting/Location - 'General Urban/Suburban'.

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Table F: Trip Generation Difference between Existing and Proposed Specific Plan

	A.M. Peak Hour			P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Proposed Specific Plan							
Total Net Trip Generation (PCE)	1,318	1,434	2,752	2,084	1,836	3,919	39,055
Approved Specific Plan							
Total Net Trip Generation (PCE)	1,290	1,291	2,581	1,949	1,771	3,720	36,054
Difference (Proposed- Approved)	**28**	**143**	**171**	**135**	**65**	**199**	**3,001**

APPENDIX

LSA

Appendix A

Tower District Specific Plan, City of Fresno - VMT Analysis (Entire Specific Plan Area)

2046	VMT per Capita *	City of Fresno (Threshold) ***	Significant Impact
With Amendment	11.4	14.0	**No**

**: VMT per capita estimate includes internal-internal (II) and internal-external (IX) VMT*

***: VMT per employee estimate includes internal-internal (primary work tour and sub-tours) and external-internal (XI) VMT*

****: City thresholds are 13% below the existing county averages*

Detailed VMT per capita calculations

	With Amendment (y)
Total households	8,086
Total Population (a)	27,389
Total Internal-Internal (II) household VMT (b) *	197,586
II VMT per capita (c=a/b)	7.2
IX VMT per capita (d) **	3.6
VMT per capita (e=c+d)	10.8
Adjustment factor (new base)(f)	1.1
Adjusted VMT per capita (g=e*f)	**11.4**

APPENDIX J

NATIVE AMERICAN TRIBAL CONSULTATION

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City of FRESNO

2600 Fresno Street, Third Floor
Fresno, California 93721-3604
(559) 621-8277 FAX (559) 498-1012

Planning and Development Department
Jennifer Clark, AICP, Director

July 15, 2025

115 Radio Street
Bakersfield, CA, 93305

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Chairperson Delia Dominguez:

Thank you for your interest in proposed development projects in the City of Fresno (City) pursuant to the provisions of Assembly Bill 52 (AB 52) and Section 21080.3.1 (d) of the Public Resources Code, for formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with your tribe. This notification is for the purpose of extending the opportunity to request a consultation to protect any tribal cultural resources that may exist in the Fresno Tower District Specific Plan (TDSP) Update Plan Area. Also, pursuant to the provisions of Senate Bill 18 (SB 18) and Government Code 65352.3, the Lead Agency (City of Fresno) is hereby notifying local Native American Tribes of a General Plan Amendment request associated with this Specific Plan, and extending an invitation to request consultation to protect any cultural resources that may exist in the Plann Area.

The Specific Plan Area is approximately 1,869 acres bounded by SR 180 to the south, Blackstone Avenue to the east, Shields Avenue to the north, and Fruit Avenue and Union Pacific Railroad tracks to the west.

The proposed Specific Plan would address a wide range of topics that includes guiding principles which focus on: enhancing the livability and social diversity of the Tower District, nurturing the relationship between residential neighborhoods and vibrant commercial areas, shaping the character of new development to complement Tower District's character, providing effective transportation access, increasing opportunities for recreation, and promoting environmental sustainability and climate resilience. Since the 1,869-acre plan area is fully developed, this plan is focused on conserving the historic fabric of the district and strategic infill to provide additional housing and economic development opportunities. More information about the Specific Plan is located at www.fresno.gov/TDSP.

The City, as the Lead Agency, is requiring the preparation of an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) to evaluate the potential impacts of the proposed project. Therefore, pursuant to AB 52 and Section 21080.3.1 (d) of the Public Resources Code, I am extending the opportunity to request a consultation to protect any tribal cultural resources that may exist in the Plan Area. Additionally, the project would require a General Plan Amendment. As part of the City's responsibilities pursuant to SB 18 and Government Code 65352.3, local Native American tribes must be notified of a General Plan Amendment request for the purpose of offering a consultation to protect any cultural resources that may exist in the Plan Area.

Please contact me within 90 days of receipt of this letter (by October 13, 2025) if you would like additional information about this project or would like to consult with the City of Fresno about any tribal

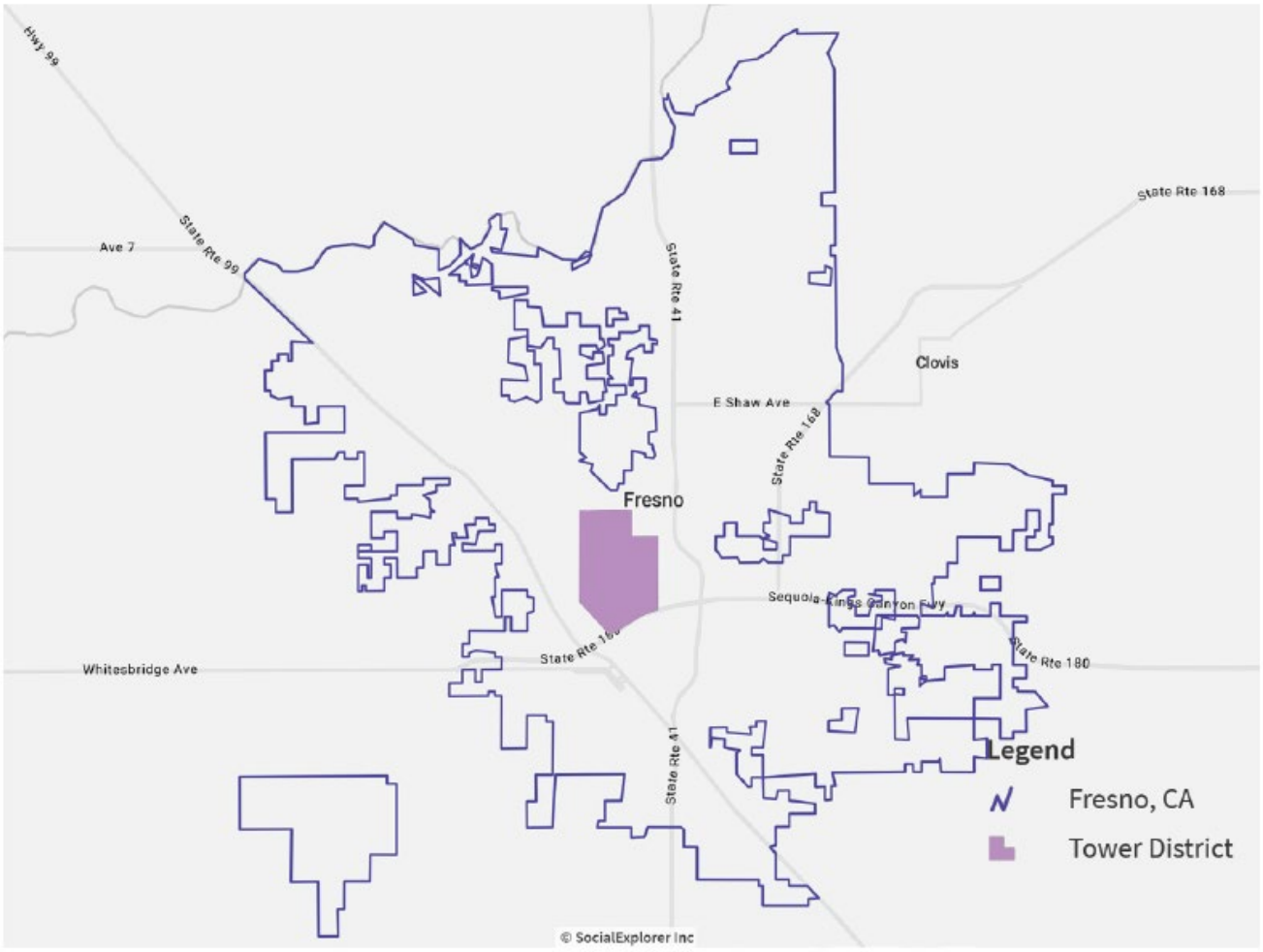
cultural resources located within the Plan Area. I can be reached at 559.621.8062 or Sophia.Pagoulatos@fresno.gov.

Sincerely,

Sophia Pagoulatos

Sophia Pagoulatos
Planning Manager

Enclosed: TDSP Project Area Map & Proposed Land Use Changes Map


Hwy 99
State Rte 99
Ave 7
State Rte 41
State Rte 168
Clovis
E Shaw Ave
State Rte 168
Fresno
Sequoia-Kings Canyon Fwy
State Rte 180
Whitesbridge Ave
State Rte 41
Legend
Fresno, CA
Tower District
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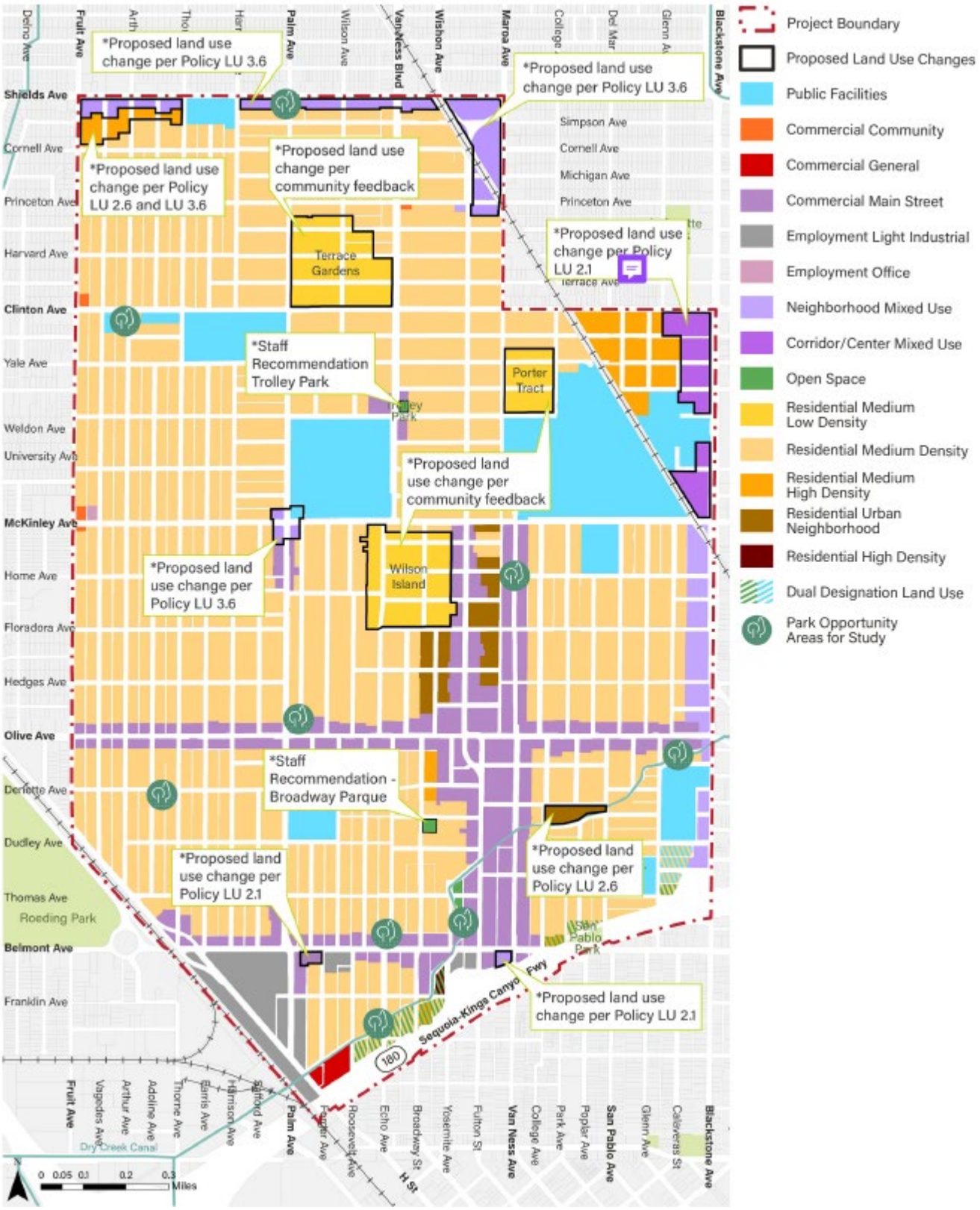
*Proposed land use change per Policy LU 3.6
*Proposed land use change per Policy LU 3.6
*Proposed land use change per Policy LU 2.6 and LU 3.6
*Proposed land use change per community feedback
Terrace Gardens
*Proposed land use change per Policy LU 2.1
*Staff Recommendation Trolley Park
Porter Tract
*Proposed land use change per community feedback
*Proposed land use change per Policy LU 3.6
Wilson Island
*Staff Recommendation - Broadway Parque
*Proposed land use change per Policy LU 2.1
*Proposed land use change per Policy LU 2.6
*Proposed land use change per Policy LU 2.1
Project Boundary
Proposed Land Use Changes
Public Facilities
Commercial Community
Commercial General
Commercial Main Street
Employment Light Industrial
Employment Office
Neighborhood Mixed Use
Corridor/Center Mixed Use
Open Space
Residential Medium Low Density
Residential Medium Density
Residential Medium High Density
Residential Urban Neighborhood
Residential High Density
Dual Designation Land Use
Park Opportunity Areas for Study
Shields Ave
Cornell Ave
Princeton Ave
Harvard Ave
Clinton Ave
Yale Ave
Weldon Ave
University Ave
McKinley Ave
Home Ave
Floradora Ave
Hedges Ave
Olive Ave
Dudley Ave
Thomas Ave
Roeding Park
Belmont Ave
Franklin Ave
Fruit Ave
Palm Ave
Van Ness Blvd
Wishon Ave
Maroa Ave
Blackstone Ave
Simpson Ave
Michigan Ave
Terrace Ave
Sequoia-Kings Canyon Fwy
San Pablo Park
Dry Creek Canal
0 0.05 0.1 0.2 0.3 Miles

City of FRESNO

2600 Fresno Street, Third Floor
Fresno, California 93721-3604
(559) 621-8277 FAX (559) 498-1012

Planning and Development Department
Jennifer Clark, AICP, Director

July 18, 2025

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Vice-Chairperson Ed Ketchum:

Thank you for your interest in proposed development projects in the City of Fresno (City) pursuant to the provisions of Assembly Bill 52 (AB 52) and Section 21080.3.1 (d) of the Public Resources Code, for formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with your tribe. This notification is for the purpose of extending the opportunity to request a consultation to protect any tribal cultural resources that may exist in the Fresno Tower District Specific Plan (TDSP) Update Plan Area. Also, pursuant to the provisions of Senate Bill 18 (SB 18) and Government Code 65352.3, the Lead Agency (City of Fresno) is hereby notifying local Native American Tribes of a General Plan Amendment request associated with this Specific Plan, and extending an invitation to request consultation to protect any cultural resources that may exist in the Plann Area.

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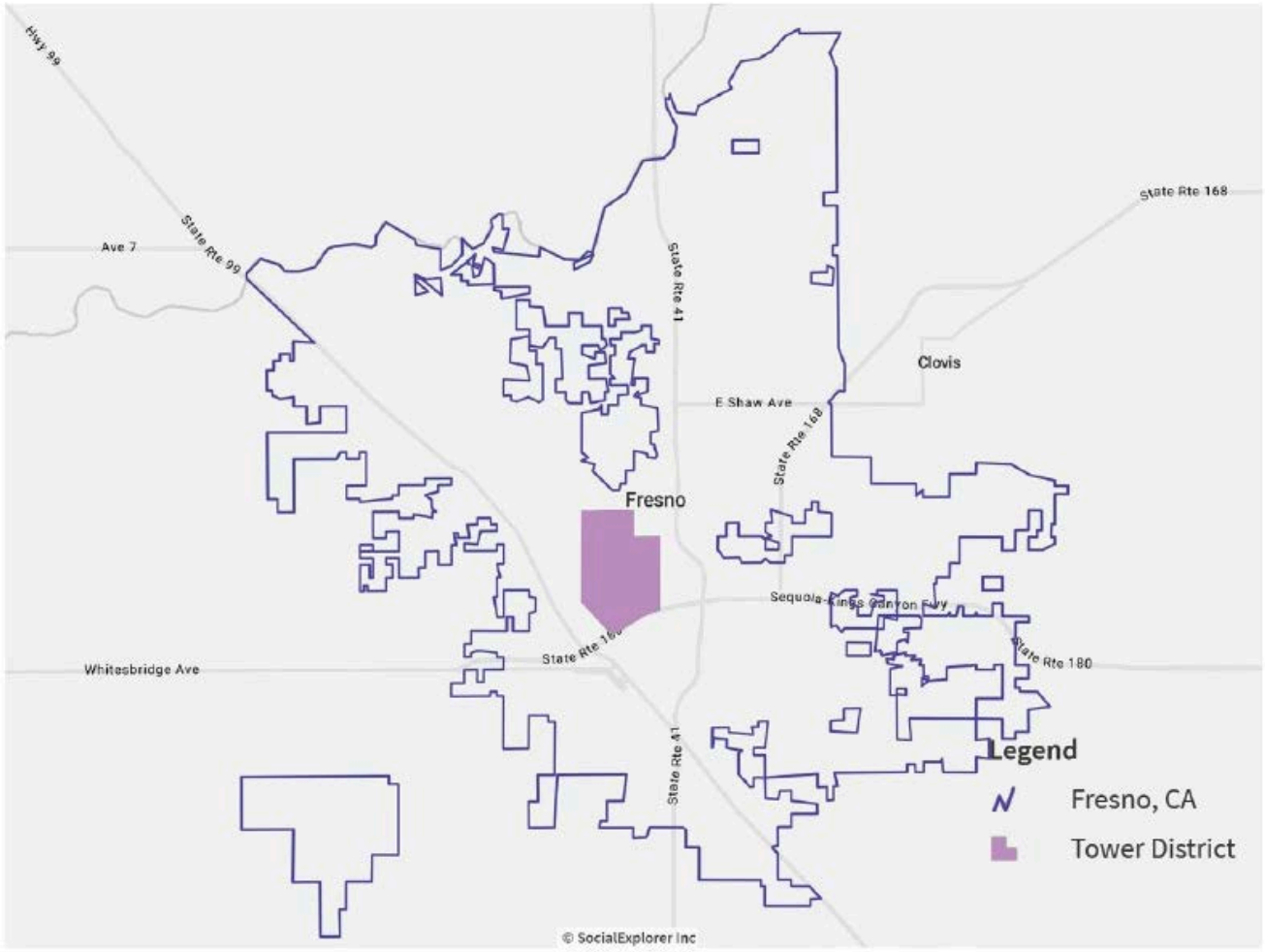
Please contact me within 90 days of receipt of this letter by October 16, 2025 if you would like additional information about this project or would like to consult with the City of Fresno about any tribal cultural resources located within the Plan Area. I can be reached at 559.621.8062 or Sophia.Pagoulatos@fresno.gov.

Sincerely,

Sophia Pagoulatos

Sophia Pagoulatos
Planning Manager

Enclosed: TDSP Project Area Map & Proposed Land Use Changes Map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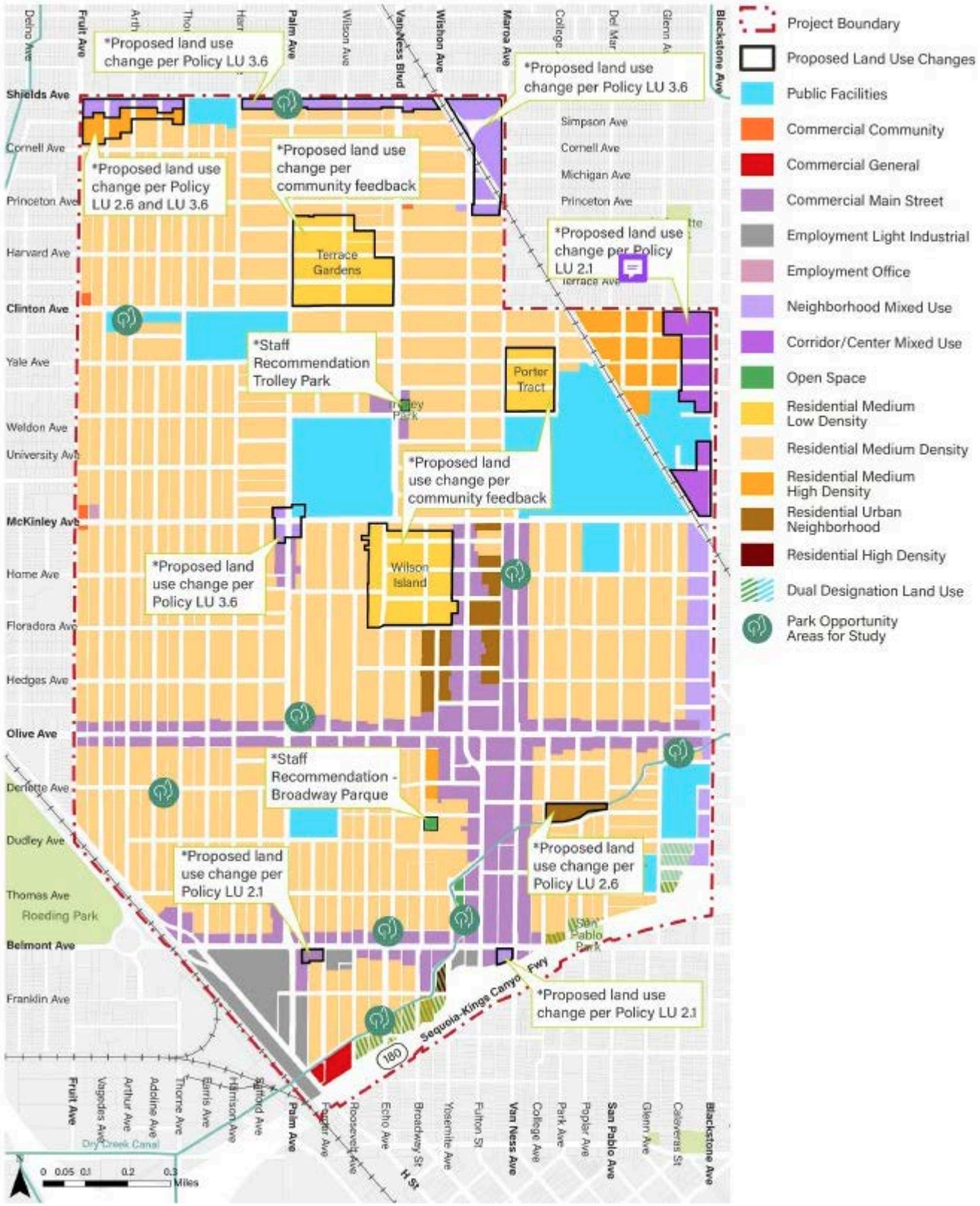
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City of FRESNO

2600 Fresno Street, Third Floor
Fresno, California 93721-3604
(559) 621-8277 FAX (559) 498-1012

Planning and Development Department
Jennifer Clark, AICP, Director

July 15, 2025

P.O. Box 2226
Oakhurst, CA, 93644

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Historic Preservation Officer Heather Airey:

Thank you for your interest in proposed development projects in the City of Fresno (City) pursuant to the provisions of Assembly Bill 52 (AB 52) and Section 21080.3.1 (d) of the Public Resources Code, for formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with your tribe. This notification is for the purpose of extending the opportunity to request a consultation to protect any tribal cultural resources that may exist in the Fresno Tower District Specific Plan (TDSP) Update Plan Area. Also, pursuant to the provisions of Senate Bill 18 (SB 18) and Government Code 65352.3, the Lead Agency (City of Fresno) is hereby notifying local Native American Tribes of a General Plan Amendment request associated with this Specific Plan, and extending an invitation to request consultation to protect any cultural resources that may exist in the Plann Area.

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Sophia Pagoulatos

Sophia Pagoulatos
Planning Manager

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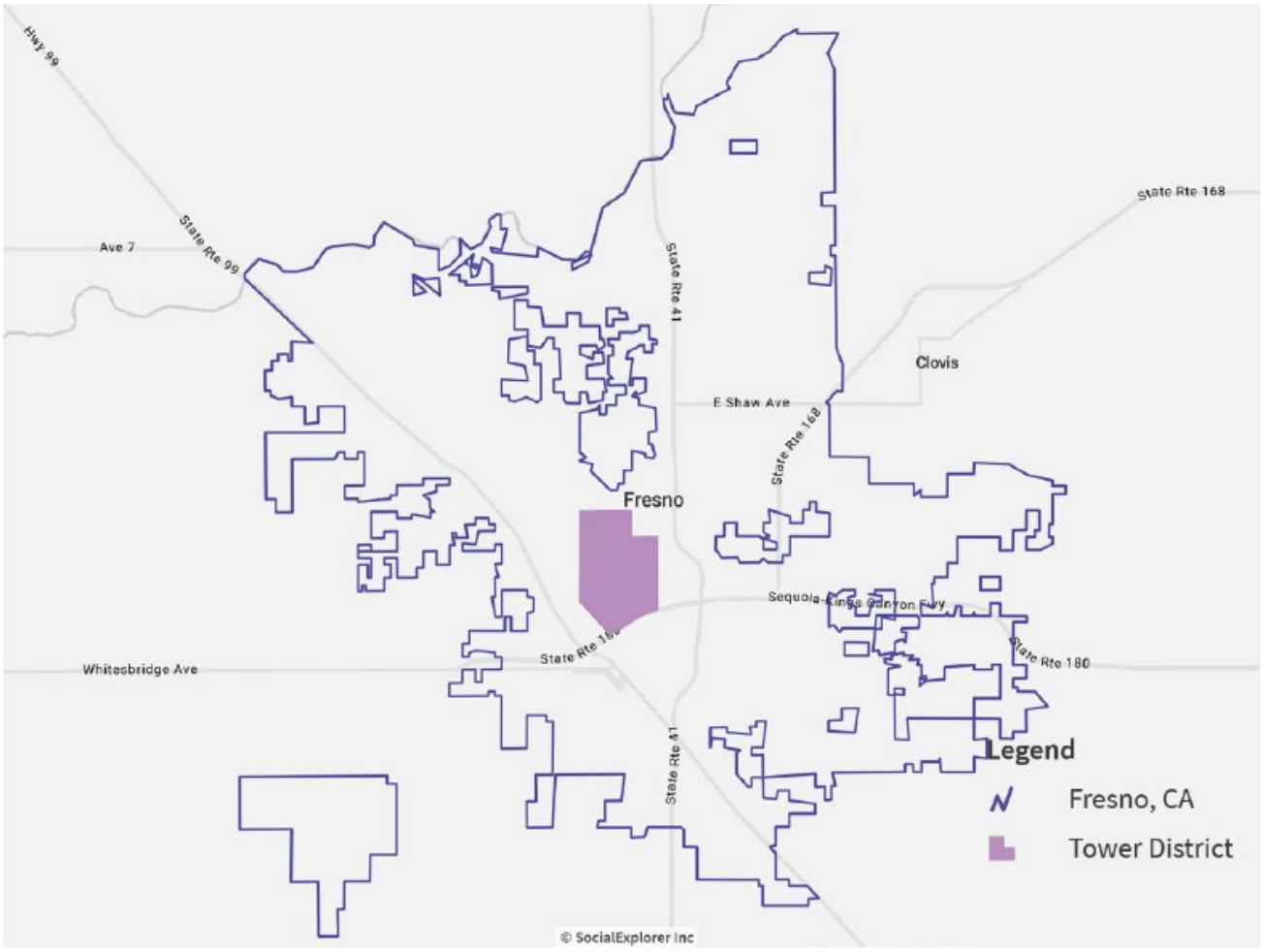
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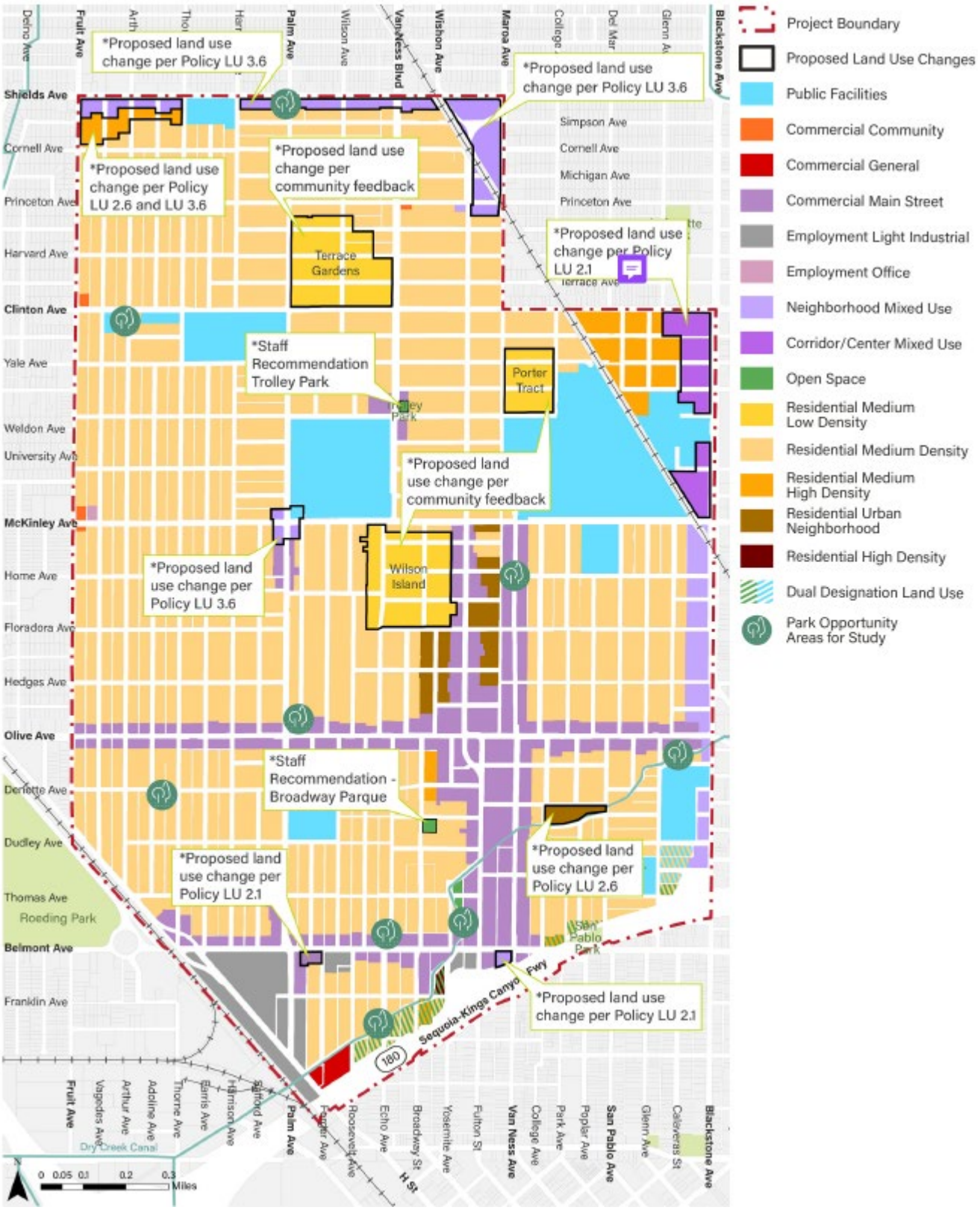
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(559) 621-8277 FAX (559) 498-1012

Planning and Development Department
Jennifer Clark, AICP, Director

July 15, 2025

P.O. Box 717
Linden, CA, 95236

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Chairperson Katherine Perez:

Thank you for your interest in proposed development projects in the City of Fresno (City) pursuant to the provisions of Assembly Bill 52 (AB 52) and Section 21080.3.1 (d) of the Public Resources Code, for formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with your tribe. This notification is for the purpose of extending the opportunity to request a consultation to protect any tribal cultural resources that may exist in the Fresno Tower District Specific Plan (TDSP) Update Plan Area. Also, pursuant to the provisions of Senate Bill 18 (SB 18) and Government Code 65352.3, the Lead Agency (City of Fresno) is hereby notifying local Native American Tribes of a General Plan Amendment request associated with this Specific Plan, and extending an invitation to request consultation to protect any cultural resources that may exist in the Plann Area.

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Sophia Pagoulatos

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Planning Manager

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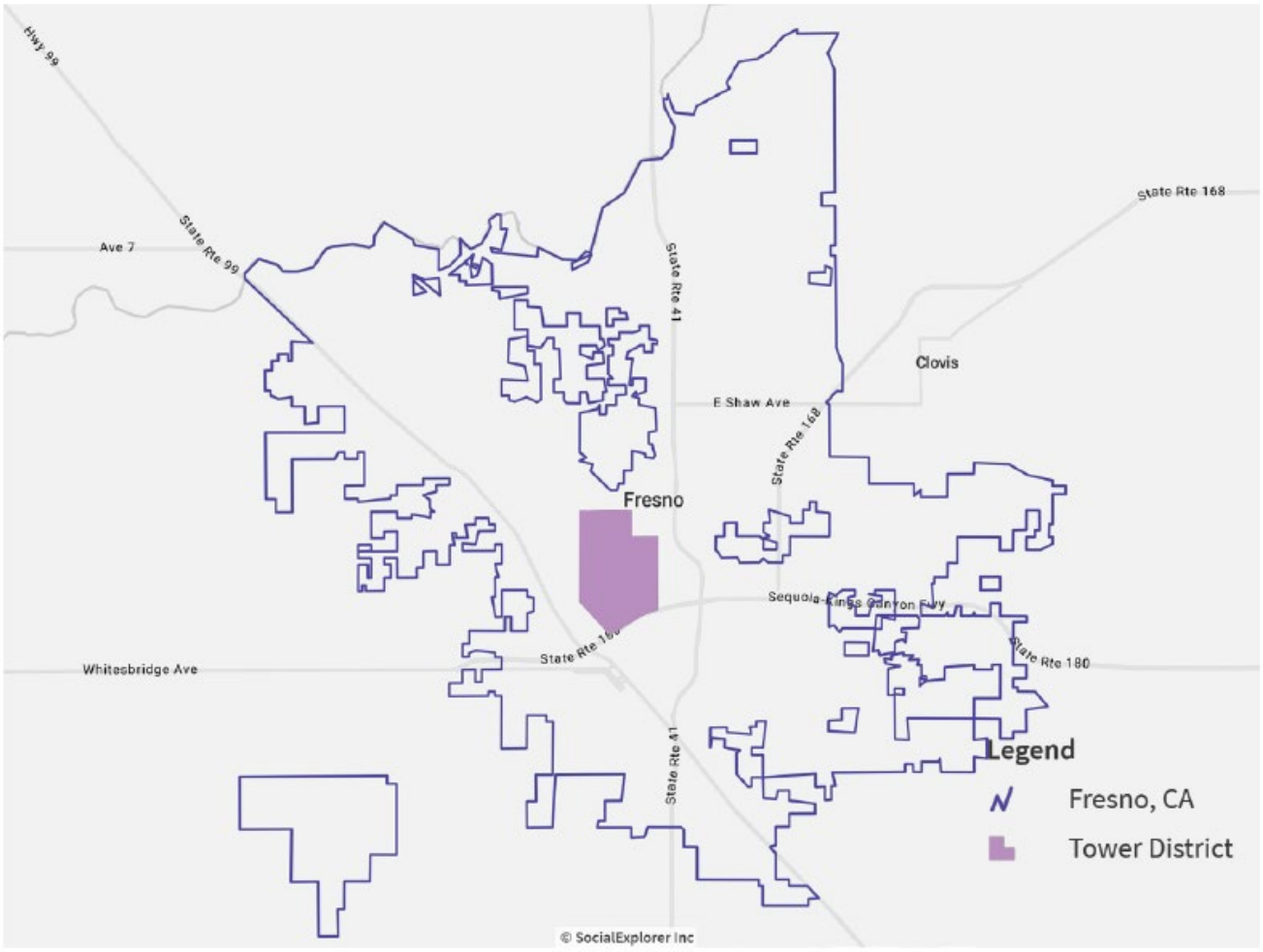
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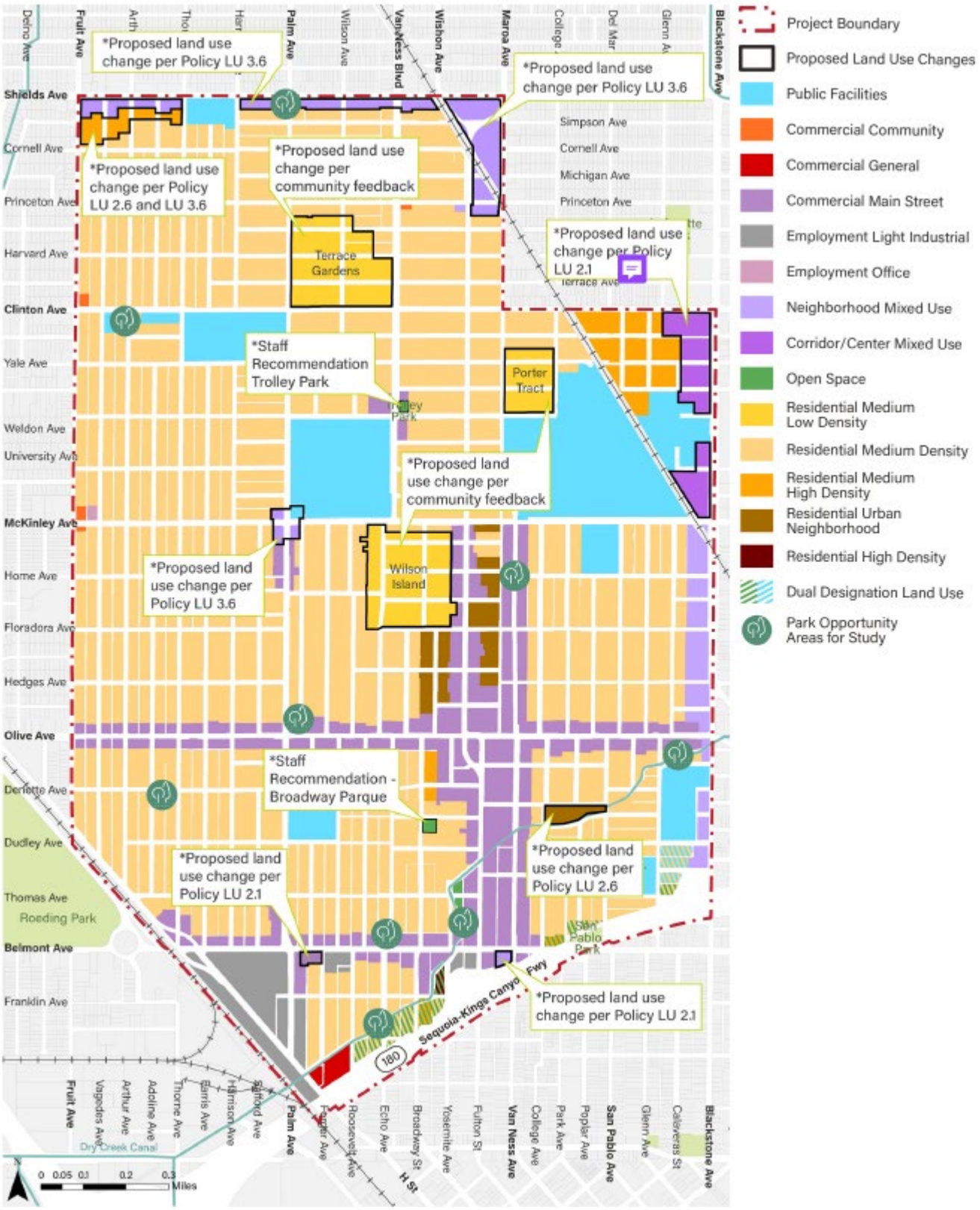
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(559) 621-8277 FAX (559) 498-1012

Planning and Development Department
Jennifer Clark, AICP, Director

July 15, 2025

1179 Rock Haven Ct.
Salinas, CA, 93906

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Chairperson Kenneth Woodrow:

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Planning Manager

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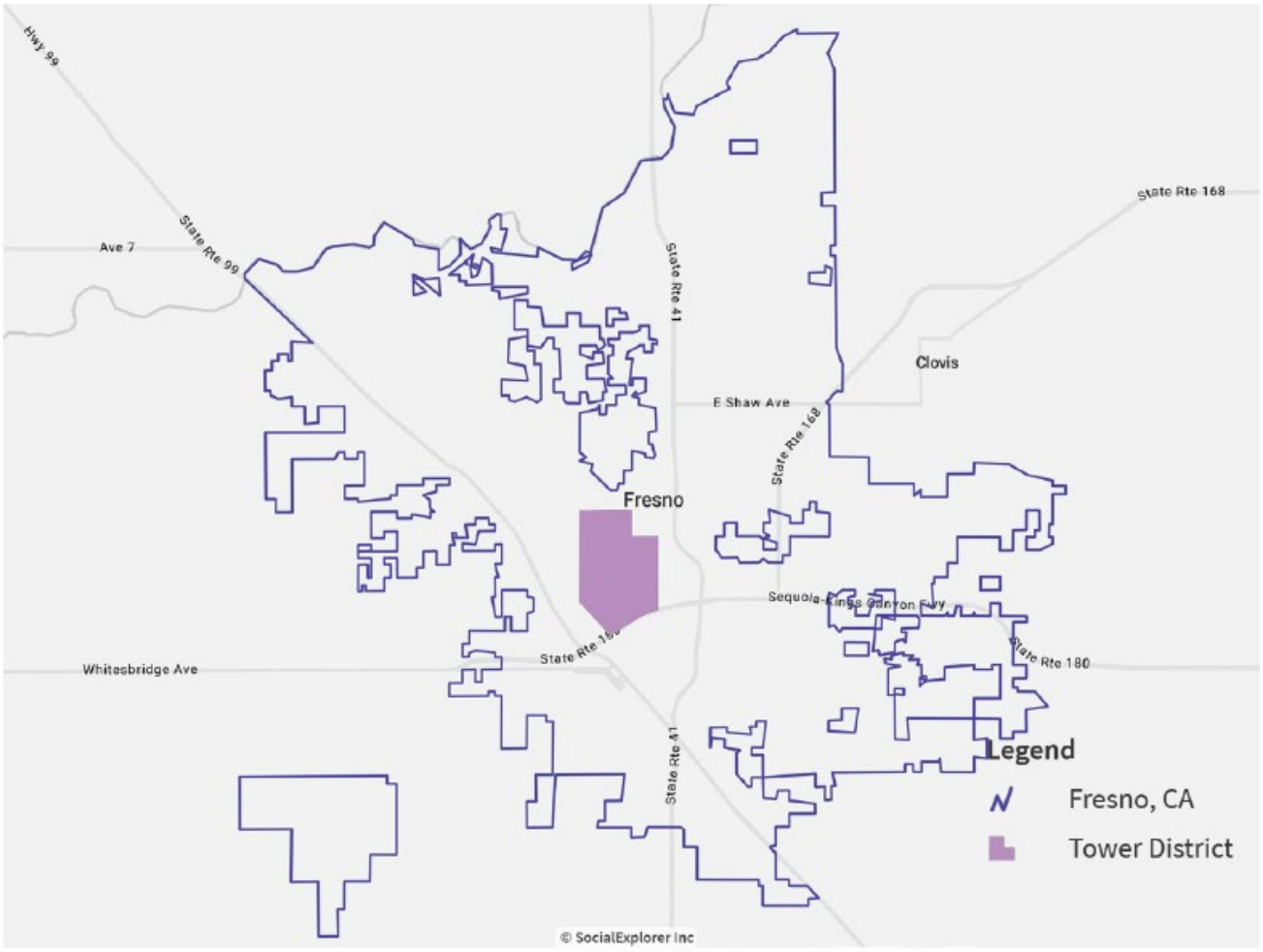
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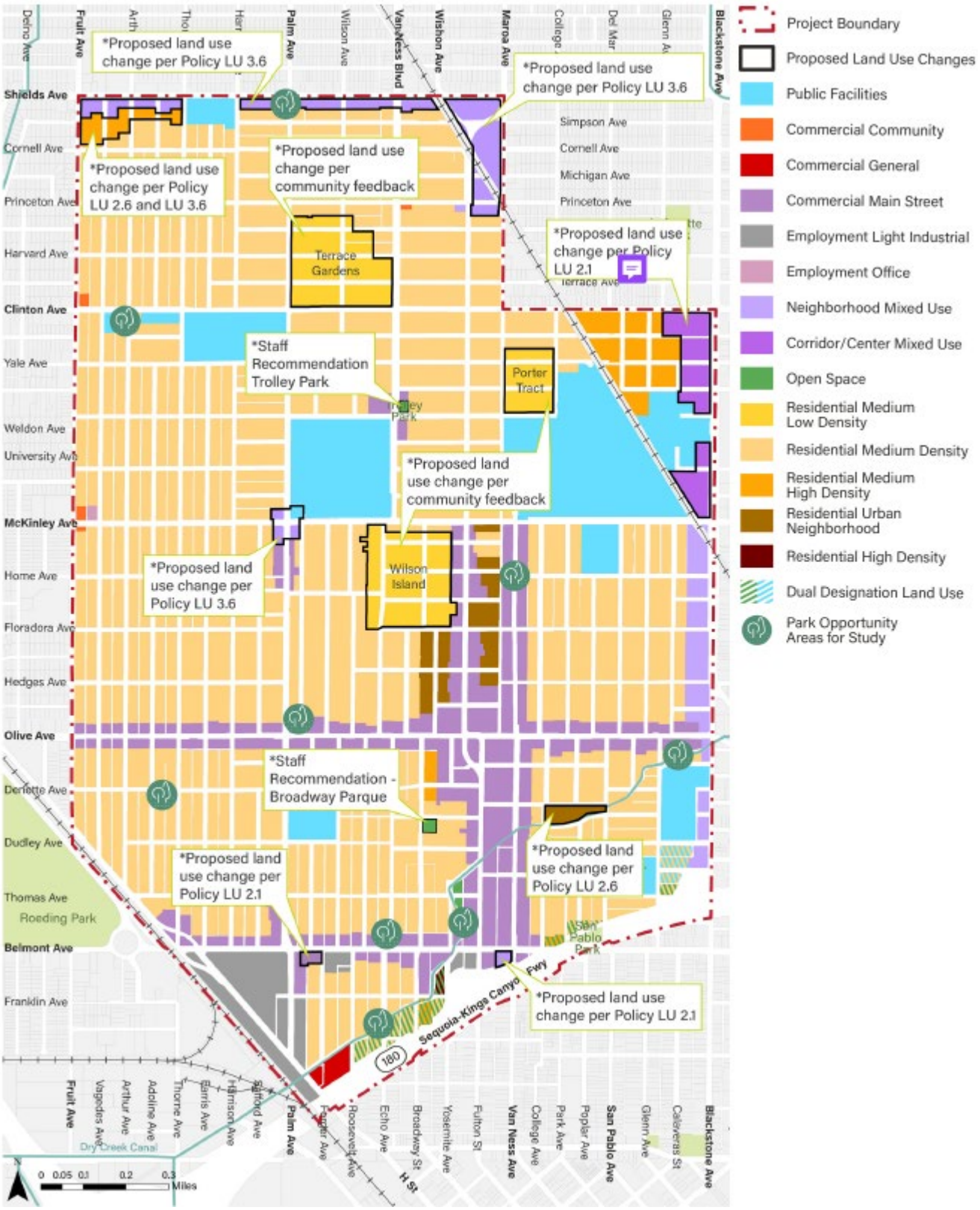
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Planning and Development Department
Jennifer Clark, AICP, Director

July 15, 2025

P.O. Box 410
Friant, CA, 93626

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Chairperson Michelle Heredia-Cordova:

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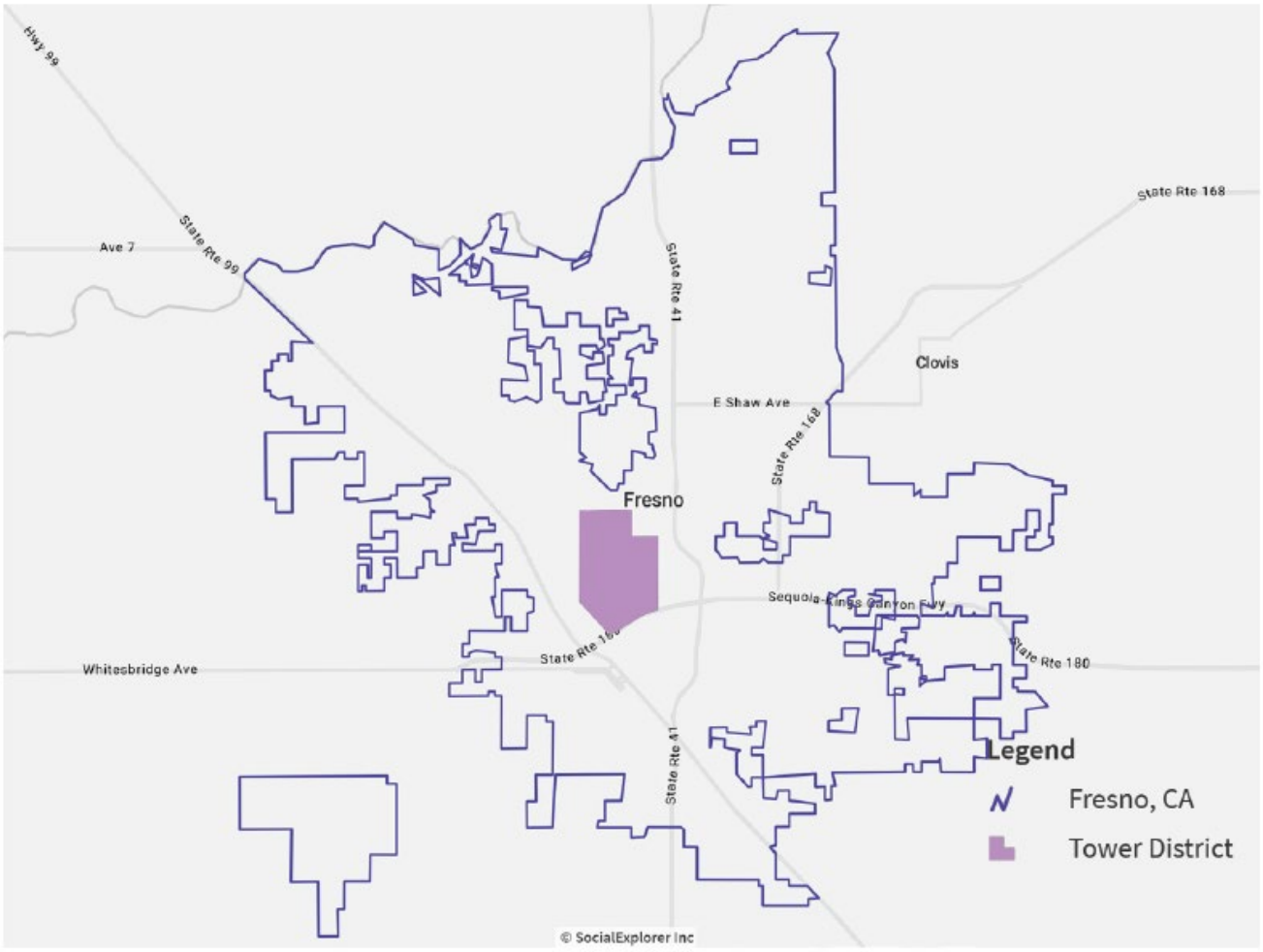
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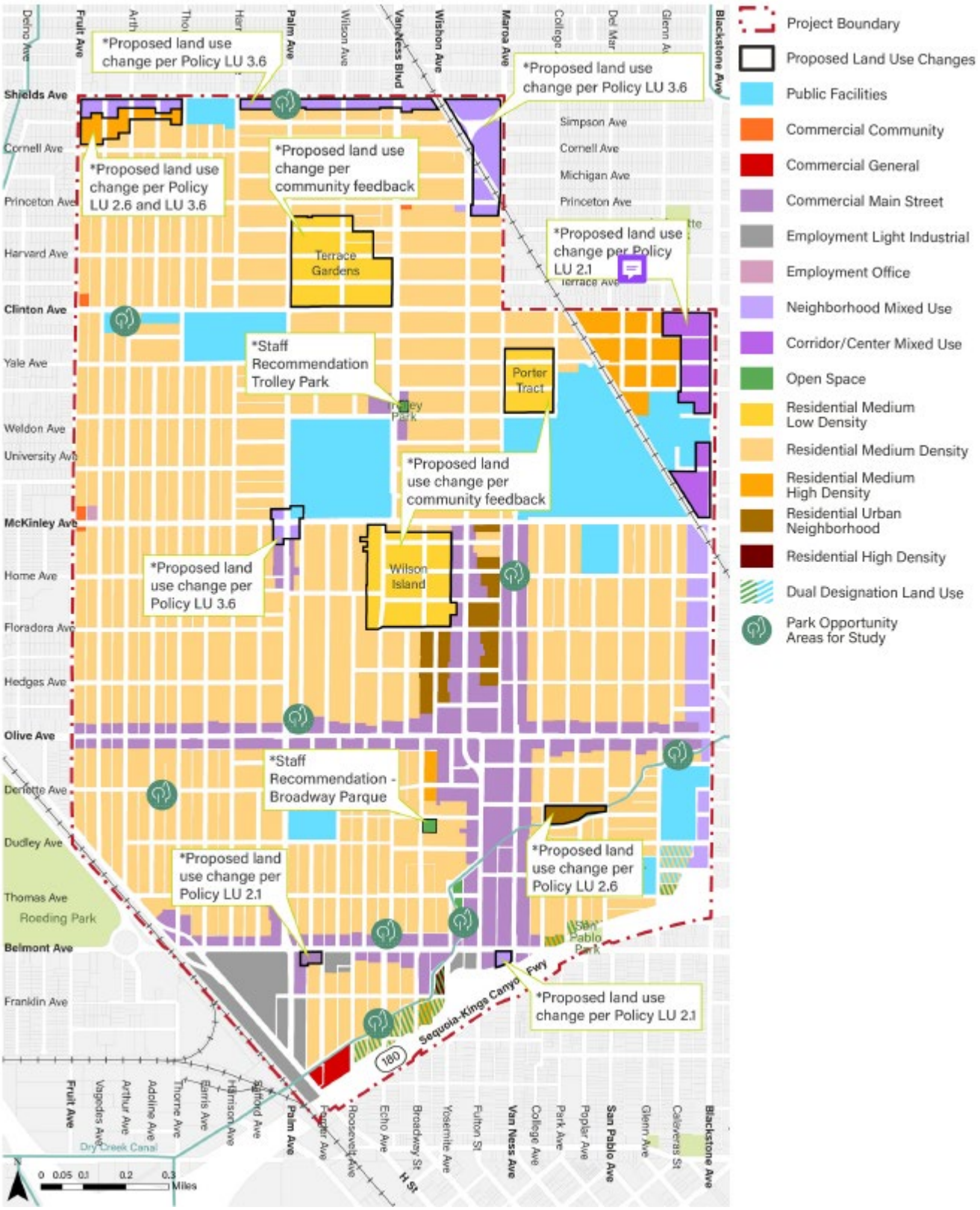
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Planning and Development Department
Jennifer Clark, AICP, Director

July 15, 2025

P.O. Box 589
Porterville, CA, 93258

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Chairperson Neil Peyron:

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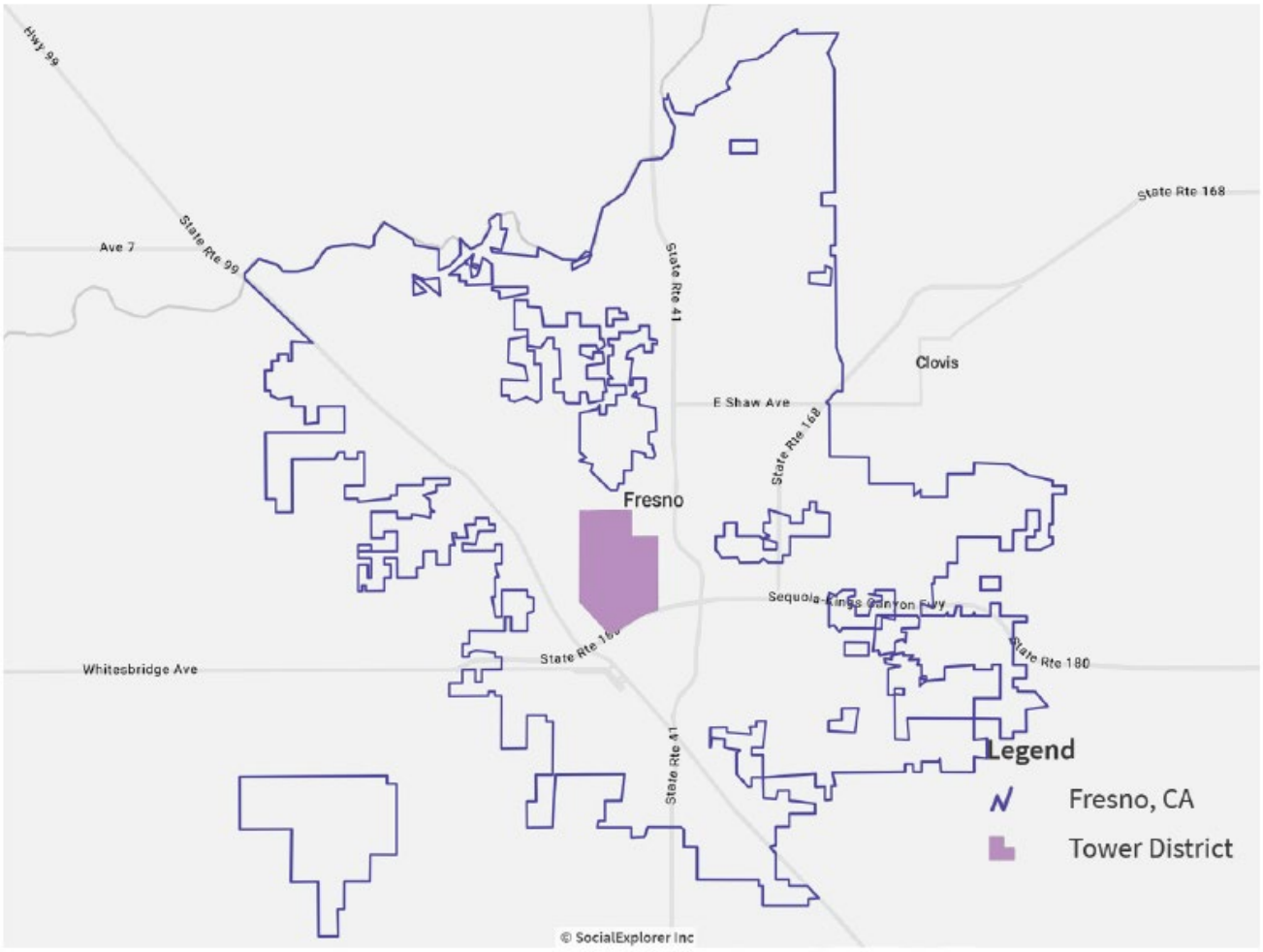
Sincerely,

Sophia Pagoulatos

Sophia Pagoulatos
Planning Manager

Enclosed: TDSP Project Area Map & Proposed Land Use Changes Map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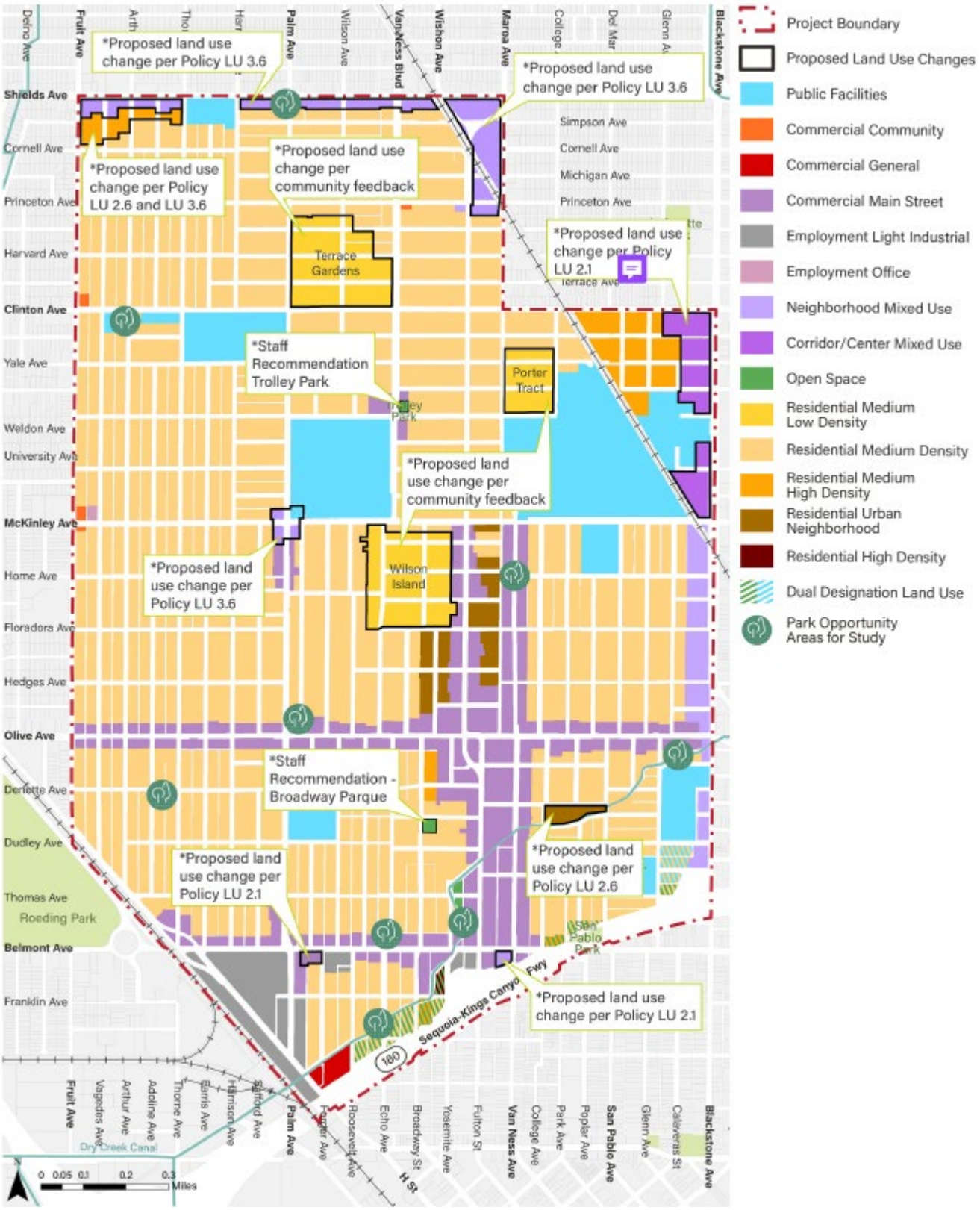
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City of FRESNO

2600 Fresno Street, Third Floor
Fresno, California 93721-3604
(559) 621-8277 FAX (559) 498-1012

Planning and Development Department
Jennifer Clark, AICP, Director

July 15, 2025

P.O. Box 717
Linden, CA, 95236

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Compliance Officer Timothy Perez:

Thank you for your interest in proposed development projects in the City of Fresno (City) pursuant to the provisions of Assembly Bill 52 (AB 52) and Section 21080.3.1 (d) of the Public Resources Code, for formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with your tribe. This notification is for the purpose of extending the opportunity to request a consultation to protect any tribal cultural resources that may exist in the Fresno Tower District Specific Plan (TDSP) Update Plan Area. Also, pursuant to the provisions of Senate Bill 18 (SB 18) and Government Code 65352.3, the Lead Agency (City of Fresno) is hereby notifying local Native American Tribes of a General Plan Amendment request associated with this Specific Plan, and extending an invitation to request consultation to protect any cultural resources that may exist in the Plann Area.

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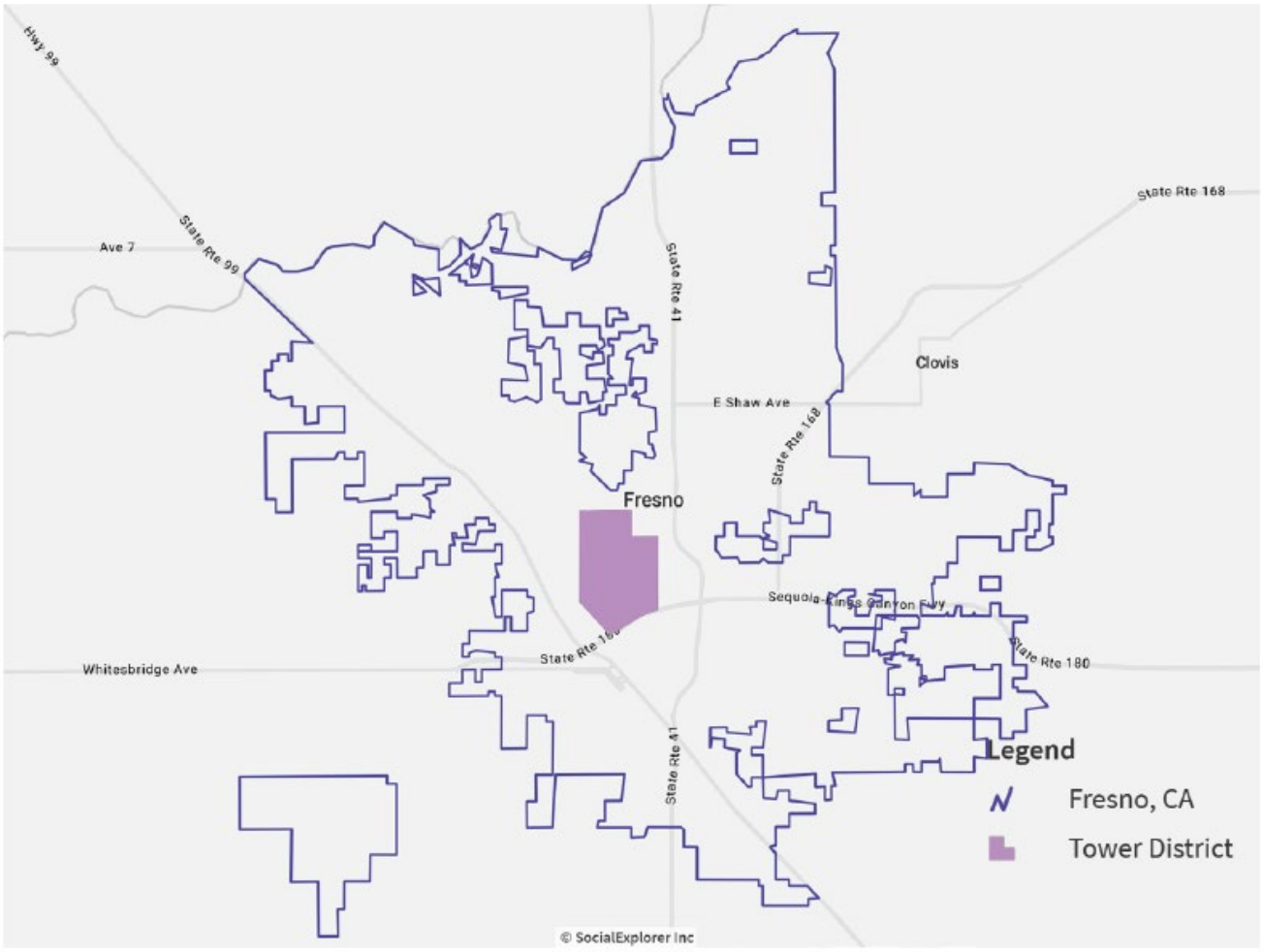
Sincerely,

Sophia Pagoulatos

Sophia Pagoulatos
Planning Manager

Enclosed: TDSP Project Area Map & Proposed Land Use Changes Map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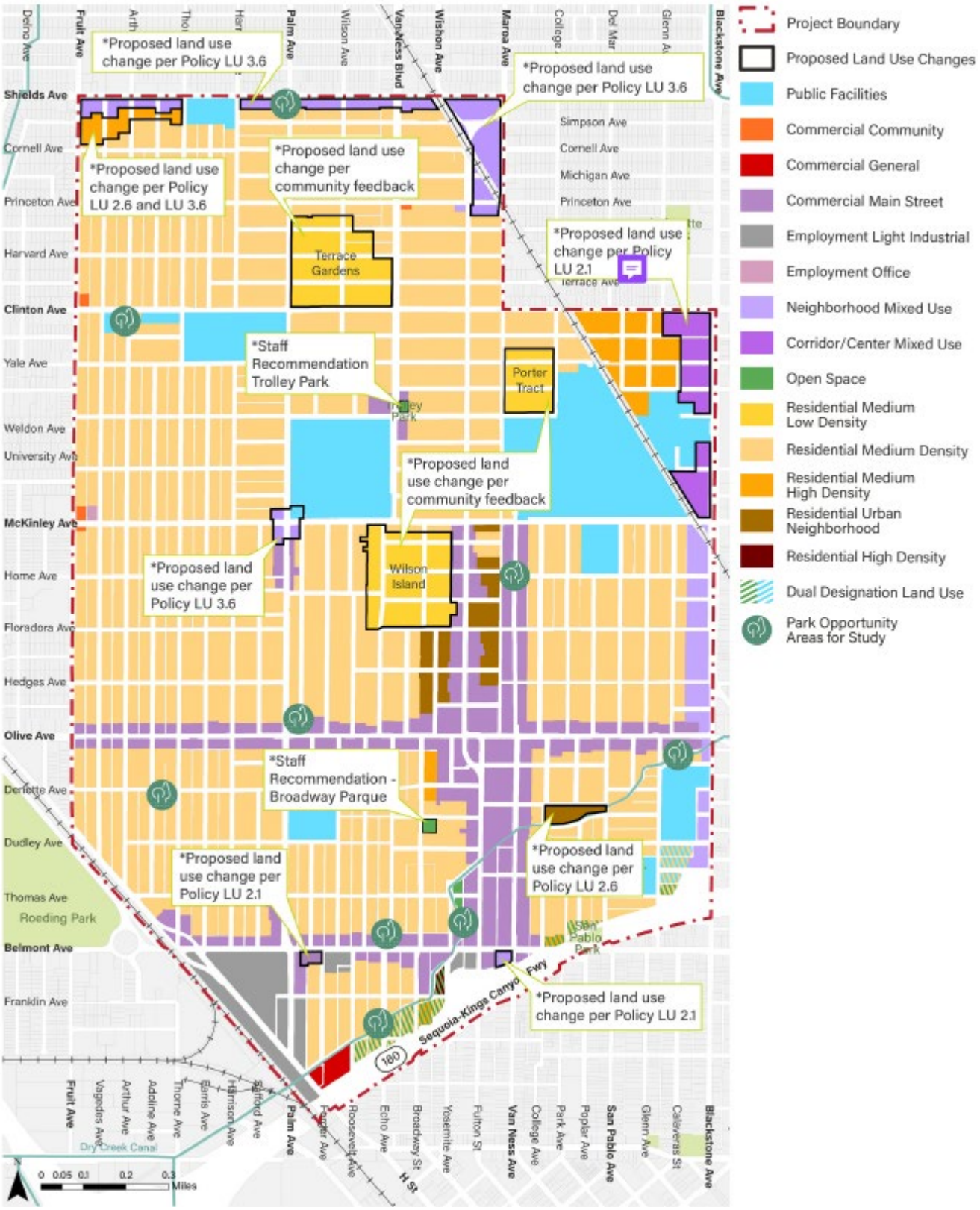
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Planning and Development Department
Jennifer Clark, AICP, Director

July 15, 2025

P.O. Box 2226
Oakhurst, CA, 93644

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Chairperson Tracey Hopkins:

Thank you for your interest in proposed development projects in the City of Fresno (City) pursuant to the provisions of Assembly Bill 52 (AB 52) and Section 21080.3.1 (d) of the Public Resources Code, for formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with your tribe. This notification is for the purpose of extending the opportunity to request a consultation to protect any tribal cultural resources that may exist in the Fresno Tower District Specific Plan (TDSP) Update Plan Area. Also, pursuant to the provisions of Senate Bill 18 (SB 18) and Government Code 65352.3, the Lead Agency (City of Fresno) is hereby notifying local Native American Tribes of a General Plan Amendment request associated with this Specific Plan, and extending an invitation to request consultation to protect any cultural resources that may exist in the Plann Area.

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Sincerely,

Sophia Pagoulatos

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Planning Manager

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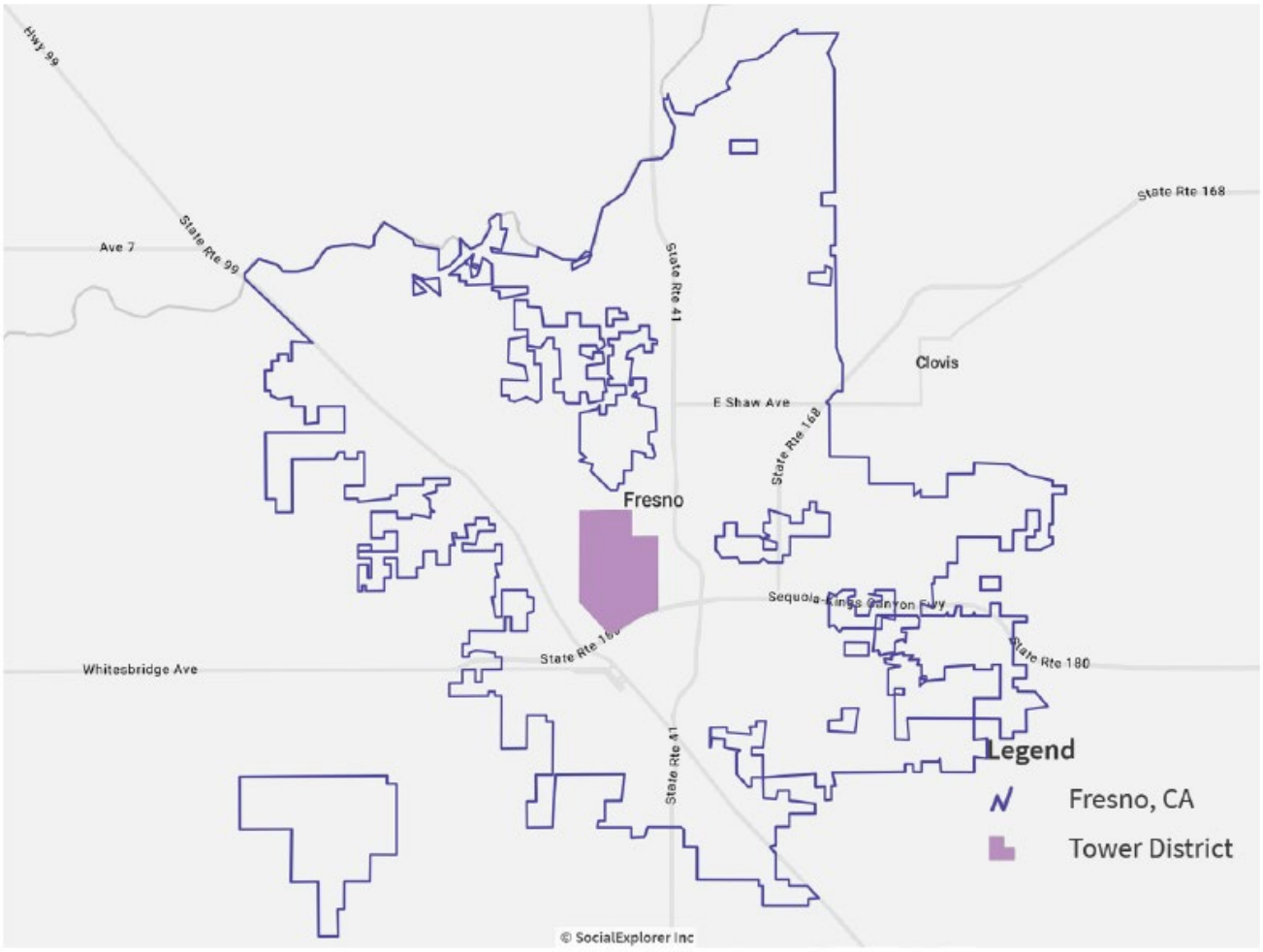
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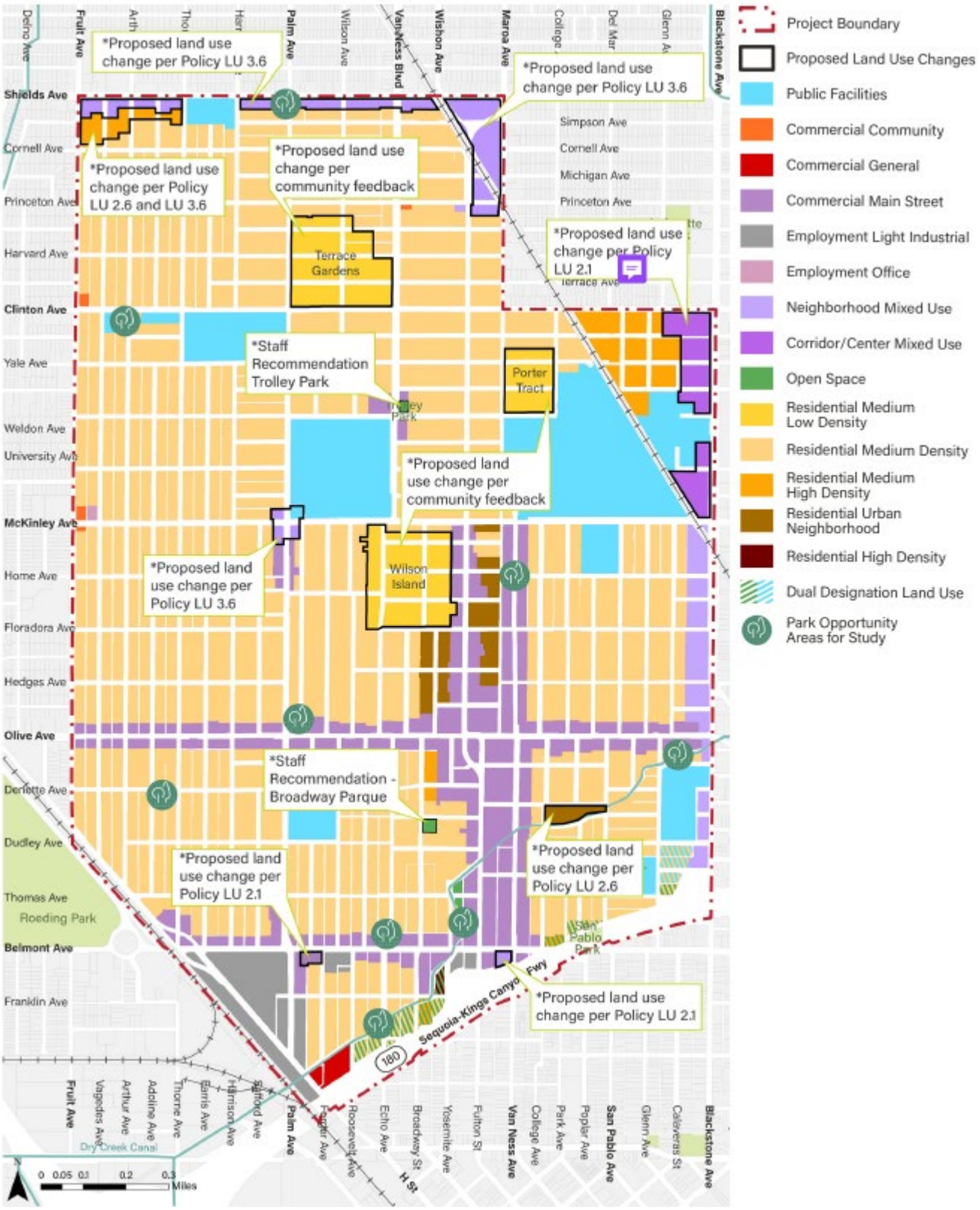
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Planning and Development Department
Jennifer Clark, AICP, Director

July 15, 2025

P.O. Box 5272
Galt, CA, 95632

Re: Tower District Specific Plan Update Project – Notification per Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18)

Dear Chairperson Valentin Lopez:

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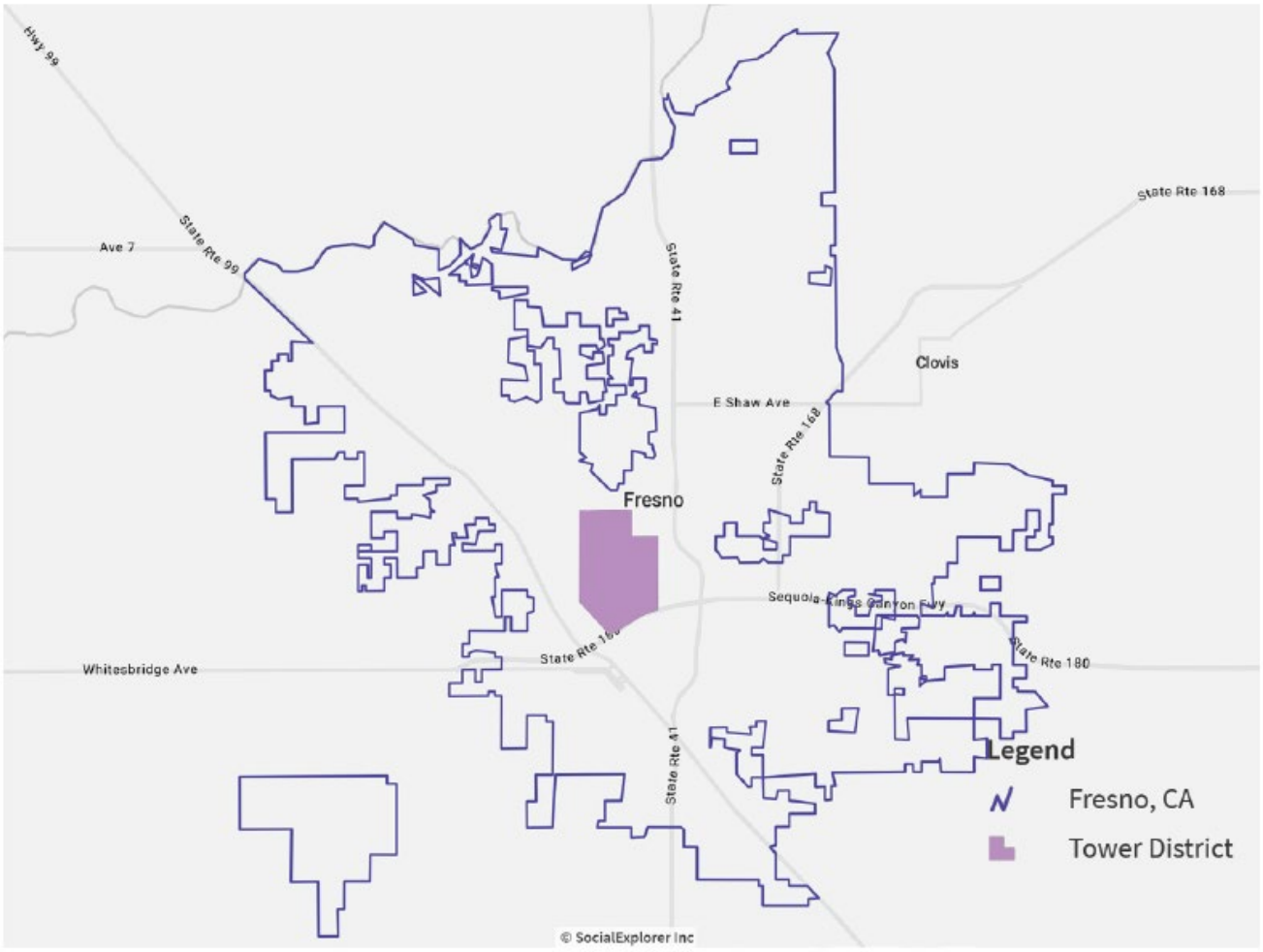
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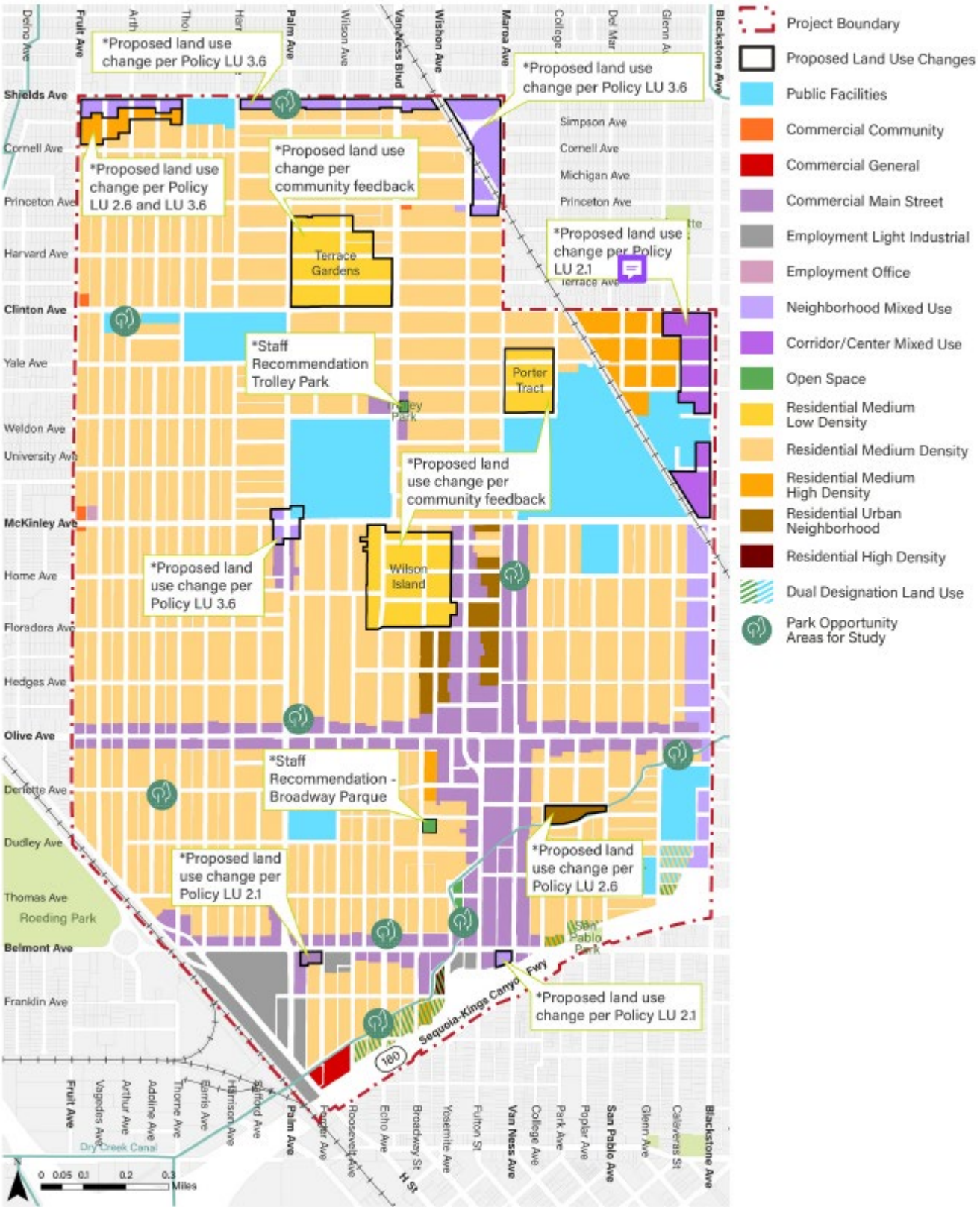
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APPENDIX K

WATER SUPPLY ASSESSMENT

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CITY OF FRESNO
WATER SUPPLY ASSESSMENT
for
The Tower District Specific Plan

DRAFT

1.0 BACKGROUND AND PURPOSE

The purpose of this Water Supply Assessment (WSA) for the Tower District Specific Plan (Project) is to comply with the provisions of Senate Bill 610 (SB 610), which requires lead agencies to show that there is sufficient water available to supply the proposed project, along with the existing and other planned development, for a horizon of 20 years. If it cannot be shown that a sufficient supply exists, it is required to present documentation that the lead agency has plans in place to adequately increase that supply.

The City of Fresno's (City) General Plan was adopted on December 18, 2014. As the proposed Project would amend the existing General Plan, and as it also exceeds 500 proposed dwelling units, the project triggers the need for completing this Water Supply Assessment (WSA). SB 610 requires documentation of adequate water supply for a 20-year period beyond the date of the assessment, and requires information to be presented in five-year increments. For purposes of this WSA, the projections extend until 2045.

2.0 URBAN WATER MANAGEMENT PLANNNING

The TDSP Project area, and its corresponding demand calculations, were accounted for in the City of Fresno **2020 Urban Water Management Plan**, adopted June 2021. Most of the information required by SB 610 can be obtained from the 2020 UWMP. The 2020 UWMP relied on the City of Fresno General Plan as the primary growth planning document for the baseline water service area population projections, and land uses assumptions.

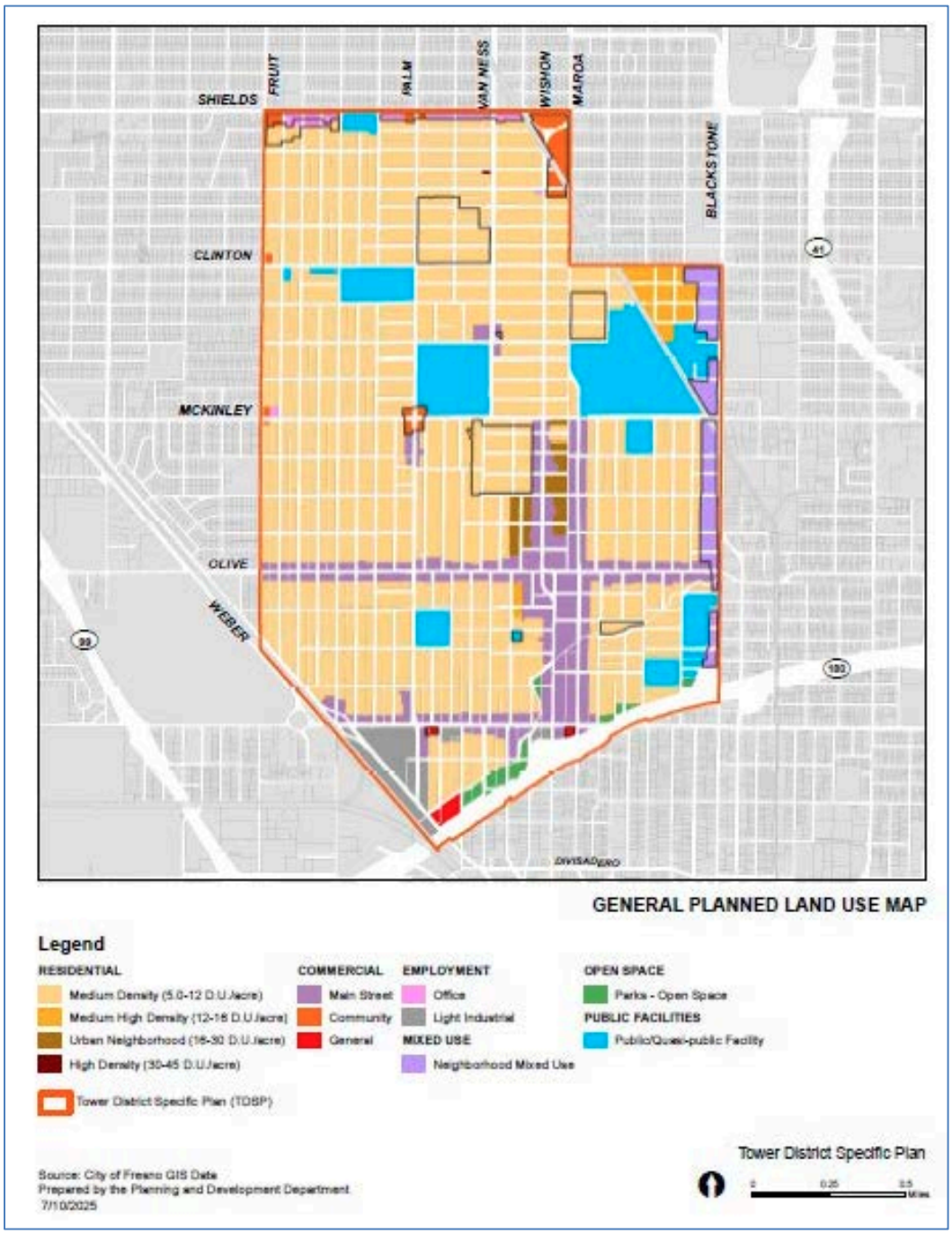
It should be noted that the 2025 UWMP has not been initiated yet since the guidebook has not been released by DWR yet. The publication date of the 2025 UWMP is anticipated to be around July 2026. Until then, the 2020 UWMP assumptions and projections remain in force.

3.0 PROJECT DESCRIPTION

The proposed project is known as the Tower District Specific Plan (TDSP), and it covers an area that encompasses the Tower District, which is centrally located within the City of Fresno and is home to approximately 20,200 residents. The TDSP Project area is

shown on Figure 1, and is generally bound by Shields Avenue to the north, Blackstone Avenue to the east, SR-180 to the south, and Fruit Avenue and the Union Pacific Railroad tracks to the west.

Figure 1: Tower District Specific Plan Area - General Plan Lan Use



4.0 PROPOSED PROJECT LAND USES

The proposed project would update the 1991 Tower District Specific Plan (1991 Specific Plan) to respond to both continuing and new issues in the Tower District. Recent decades have led to greater emphasis on housing availability and affordability, expanding recreational opportunities, and calming auto-oriented roadways. The proposed project would also implement land use changes that would maintain and enhance the character-defining elements associated with the Tower District while allowing for future growth.

This section documents the existing General Plan Land Use inventory within the TDSP area, as well as the proposed changes within this area. The General Plan Land Use inventory within the TDSP area is documented on Table 1, along with the acres of each category and the percentage of the total. There are approximately 1,298.98 acres within the TDSP area, and the General Plan designates 68% of this area as Medium Density Residential.

Table 1: General Plan Land Use Inventory within the TDSP Area

Land Use Category	Area (Acres)	Percent of Total
Residential - Medium Density	878.19	68%
Residential - Medium High Density	19.36	1%
Residential - High Density	0.17	0%
Urban Neighborhood	14.89	1%
Neighborhood Mixed-Use	33.43	3%
Commercial - Main Street	129.76	10%
Commercial - Community	15.73	1%
Commercial - General	4.12	0%
Employment - Office	9.10	1%
Employment - Light Industrial	20.37	2%
Public Facility - College	72.56	6%
Public Facility - Elementary School	46.27	4%
Public Facility - High School	33.99	3%
Public Facility - Community Activity Center	6.33	0%
Public Facility - Police Department	0.65	0%
Public Facility	5.07	0%
Open Space	8.98	1%
Total	1,298.97	100%

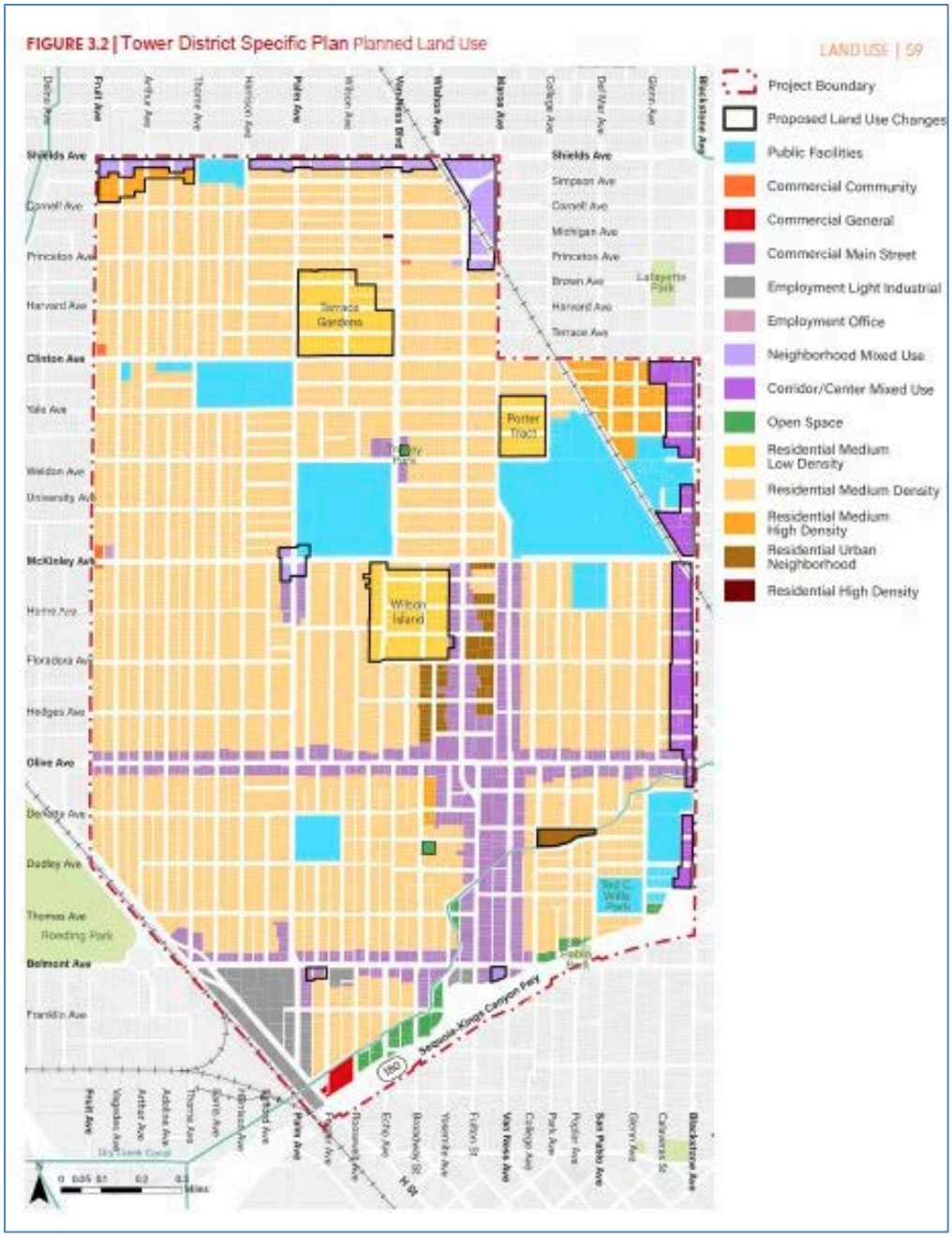
This Project is proposing to modify the General Plan Land Use in approximately 118 acres. Table 2 provides an inventory of the General Plan Land Use inventory for these 118 acres, and compares them with the proposed TDSP land uses. These proposed changes to the land uses are also shown on Figure 2.

Table 2: Proposed Changes to General Plan Land Uses within the TDSP

General Plan Planned Land Use	Area (Acres)	Proposed TDSP Changes to Land Uses	Area (Acres)
Residential - Medium Density	60.12	Residential - Medium Low Density	53.77
Neighborhood Mixed-Use	32.90	Residential - Medium High Density	5.30
Commercial - Main Street	0.47	Residential - Urban Neighborhood	2.32
Commercial - Community	14.47	Neighborhood Mixed-Use	21.49
Commercial - General	1.09	Corridor/Center Mixed Use	33.16
Employment - Office	8.57	Commercial - Main Street	0.57
Public Facility - College	0.00	Public Facility	0.57
Public Facility - Police Department	0.55	Open Space	0.85
Total	**118**	**Total**	**118**

This Water Supply Assessment will thus only focus on the proposed changes within these 118 acres, to determine the impact of this project on the City water supply sufficiency.

Figure 2: Tower District Specific Plan Area - Proposed Land Use



5.0 IMPACT ON WATER DEMAND FROM PROPOSED TDSP LAND USE CHANGES

This section focuses on the changes attributed to the TDSP project, and as a result of the proposed land use changes documented in the previous section.

The 2020 UWMP is based on the General Plan Lan Use assumptions. As such, the water demands for the areas proposed for change in land uses (Table 2) are compared in Tables 3 and 4.

Table 3: Water Demands in Areas Selected for Land Use Change – 2020 UWMP Assumptions

General Plan Planned Land Use	Area (acres)	Duty Factors (ac-ft/yr/acre)	Demand (afy)
Residential - Medium Density	60.12	3.10	186.4
Neighborhood Mixed-Use	32.90	2.76	90.8
Commercial - Main Street	0.47	2.56	1.2
Commercial - Community	14.47	2.56	37.0
Commercial - General	1.09	2.56	2.8
Employment - Office	8.57	2.65	22.7
Public Facility - College	0.00	1.83	0.0
Public Facility - Police Department	0.55	0.71	0.4
Total	**118**		**341.31**

Table 4: Water Demands in Areas Selected for Land Use Change – TDSP Assumptions

General Plan Planned Land Use	Area (acres)	Duty Factors (ac-ft/yr/acre)	Demand (afy)
Residential - Medium Low Density	53.77	3.14	168.8
Residential - Medium High Density	5.30	4.89	25.9
Residential - Urban Neighborhood	2.32	6.51	15.1
Neighborhood Mixed-Use	21.49	2.76	59.3
Corridor/Center Mixed Use	33.16	4.50	149.2
Commercial - Main Street	0.57	2.56	1.5
Public Facility	0.57	0.71	0.4
Open Space	0.85	0.67	0.6
Total	**118**		**420.86**

Table 3 indicates that the 118 acres of areas identified for land use change, were assumed to require approximately 341 acre-feet per year (afy) in the 2020 UWMP. Table 4 indicates that these same areas, when the Project proposed land uses are applied, will result with water demands requirements of approximately 420.86 afy.

Therefore, the impact of the land uses changes within the TDSP area, as a result fo the proposed land uses changes, will result an increase of approximately 80 afy in addition to the assumption in the 2020 UWMP. This increase in water demands is not considered significant.

6.0 WATER SUPPLY PROJECTIONS

The City of Fresno relies on groundwater, surface water, and recycled water for supplies. The City maintains a water supply contract with the U.S. Bureau of Reclamation (USBR) for Class 1 surface water allocations from Millerton Lake. The City's USBR contract provides access to 60,000 acre-feet per year (afy) of surface water from Millerton Lake for municipal and industrial purposes and groundwater recharge, plus access to additional water supply resources above 60,000 afy, including Unreleased Restoration Flows, Recirculated Water, Recovered Water, and Section 215 Water (non-storable flood release water). In addition, the City maintains a water supply and conveyance agreement with the Fresno Irrigation District (FID) that currently allocates 25.64 percent of FID's total Kings River entitlements to the City, with the potential to increase the City's allocation to 29 percent. In a normal year for precipitation and snowpack, FID's entitlements from the Kings River range from 400,000 to 500,000 afy. At 25.64 percent and 29.00 percent, the City's surface water entitlements from the Kings River total 128,200 afy and 145,000 afy, respectively, at 500,000 afy for FID.

The 2020 UWMP, Chapter 6 "Water Supply Characterization", provides a full description of the existing and planned sources of water supplies for the City of Fresno, including groundwater, surface water, and recycled water. The chapter provides projections of reasonably available quantities, in 5-year increments, through a horizon year of 2045, as shown on Table 5.

Table 5. 2020 UWMP Projected Water Supplies (2025-2045)

Table 6-8. Projected Water Supplies (DWR 6-9R)

	REASONABLY AVAILABLE VOLUME, AFY				
WATER SUPPLY	2025	2030	2035	2040	2045
Groundwater	138,090	143,630	149,100	154,490	159,820
USBR CVP	60,000	60,000	60,000	60,000	60,000
FID Kings River	125,030	131,600	131,600	131,600	131,600
Recycled Water, RWRF	5,800	5,800	5,800	5,800	5,800
Recycled Water, NFWRF	110	110	110	110	110
TOTAL:	**329,030**	**341,140**	**346,610**	**352,000**	**357,330**

Source: 2020 UWMP, July 2021. WSC

7.0 WATER SUPPLY AND WATER DEMANDS

The 2020 UWMP, Chapter 7, provides a comparison of the water demands and water supplies through a horizon year of 2045. In addition to normal years, this chapter evaluates the ability of the Fresno water supplies during drought years, including a single dry year, and multiple dry years.

Table 6 was extracted from the 2020 UWMP, and demonstrates that during normal years, the City of Fresno has a projected surplus of up to 115,883 afy in 2045. The additional 80 afy demands resulting from the proposed TDSP project can be met with this supply surplus.

Table 6. 2020 UWMP Normal Year Supply and Demand Comparison (2025-2045)

Table 7-1. Normal Year Supply and Demand Comparison (DWR 7-2R)

	2025	2030	2035	2040	2045
Groundwater	138,090	143,630	149,100	154,490	159,820
Surface Water – USBR	60,000	60,000	60,000	60,000	60,000
Surface Water – FID	125,030	131,600	131,600	131,600	131,600
Recycled Water	5,910	5,910	5,910	5,910	5,910
SUPPLY TOTALS	**329,030**	**341,140**	**346,610**	**352,000**	**357,330**
Potable Demand	136,504	147,356	154,210	161,076	167,947
Non-Potable (Groundwater Recharge) Demand	62,700	65,400	68,100	70,800	73,500
DEMAND TOTALS	**199,204**	**212,756**	**222,310**	**231,876**	**241,447**
DIFFERENCE:	**129,826**	**128,384**	**124,300**	**120,124**	**115,883**

Source: 2020 UWMP, July 2021. WSC

Table 7 was also extracted from the 2020 UWMP, and demonstrates that during single dry years, the City of Fresno has a projected surplus of up to 11,295 afy in 2045. The additional 80 afy demands resulting from the proposed TDSP project can also be met with this supply surplus.

Table 7. 2020 UWMP Single Dry Year Supply and Demand Comparison (2025-2045)

Table 7-2. Single Dry Year Supply and Demand Comparison (DWR 7-3R)

	2025	2030	2035	2040	2045
Groundwater	138,090	143,630	149,100	154,490	159,820
Surface Water – USBR	0	0	0	0	0
Surface Water – FID	45,852	45,852	45,852	45,852	45,852
Recycled Water	5,910	5,910	5,910	5,910	5,910
SUPPLY TOTALS	**189,852**	**195,392**	**200,862**	**206,252**	**211,582**
Potable Demand	136,504	147,356	154,210	161,076	167,947
Non-Potable (Groundwater Recharge) Demand	27,588	28,776	29,964	31,152	32,340
DEMAND TOTALS	**164,092**	**176,132**	**184,174**	**192,228**	**200,287**
DIFFERENCE:	**25,760**	**19,260**	**16,688**	**14,024**	**11,295**

Source: 2020 UWMP, July 2021. WSC

Table 8 was also extracted from the 2020 UWMP, and demonstrates that during multiple dry years, the City of Fresno has projected varying surplus that exceed 27,000 afy. The additional 80 afy demands resulting from the proposed TDSP project can also be met with this supply surplus.

Table 8. 2020 UWMP Multiple Dry Years Supply and Demand Comparison (2025-2045)

Table 7-3. Multiple Dry Years Supply and Demand Comparison (DWR 7-4R)

		2025	2030	2035	2040	2045
FIRST YEAR	Groundwater	138,090	143,630	149,100	154,490	159,820
	Surface Water – USBR	30,000	30,000	30,000	30,000	30,000
	Surface Water – FID	99,725	99,725	99,725	99,725	99,725
	Recycled Water	5,910	5,910	5,910	5,910	5,910
	SUPPLY TOTALS	**273,725**	**279,265**	**284,735**	**290,125**	**295,455**
	Potable Demand	136,504	147,356	154,210	161,076	167,947
	Non-Potable Demand	62,700	65,400	68,100	70,800	73,500
	DEMAND TOTALS	**199,204**	**212,756**	**222,310**	**231,876**	**241,447**
	DIFFERENCE:	**74,521**	**66,509**	**62,425**	**58,249**	**54,008**
SECOND YEAR	Groundwater	138,090	143,630	149,100	154,490	159,820
	Surface Water – USBR	37,200	37,200	37,200	37,200	37,200
	Surface Water – FID	93,426	93,426	93,426	93,426	93,426
	Recycled Water	5,910	5,910	5,910	5,910	5,910
	SUPPLY TOTALS	**274,626**	**280,166**	**285,636**	**291,026**	**296,356**
	Potable Demand	136,504	147,356	154,210	161,076	167,947
	Non-Potable Demand	62,700	65,400	68,100	70,800	73,500
	DEMAND TOTALS	**199,204**	**212,756**	**222,310**	**231,876**	**241,447**
	DIFFERENCE:	**75,422**	**67,410**	**63,326**	**59,150**	**54,909**
THIRD YEAR	Groundwater	138,090	143,630	149,100	154,490	159,820
	Surface Water – USBR	0	0	0	0	0
	Surface Water – FID	73,568	73,568	73,568	73,568	73,568
	Recycled Water	5,910	5,910	5,910	5,910	5,910
	SUPPLY TOTALS	**217,568**	**223,108**	**228,578**	**233,968**	**239,298**
	Potable Demand	136,504	147,356	154,210	161,076	167,947
	Non-Potable Demand	53,763	46,281	43,526	40,677	37,761
	DEMAND TOTALS	**190,267**	**193,637**	**197,736**	**201,753**	**205,708**
	DIFFERENCE:	**27,301**	**29,471**	**30,842**	**32,215**	**33,589**
FOURTH YEAR	Groundwater	138,090	143,630	149,100	154,490	159,820
	Surface Water – USBR	0	0	0	0	0
	Surface Water – FID	45,852	45,852	45,852	45,852	45,852
	Recycled Water	5,910	5,910	5,910	5,910	5,910
	SUPPLY TOTALS	**189,852**	**195,392**	**200,862**	**206,252**	**211,582**
	Potable Demand	136,504	147,356	154,210	161,076	167,947
	Non-Potable Demand	26,047	18,564	15,810	12,960	10,045
	DEMAND TOTALS	**162,551**	**165,920**	**170,020**	**174,036**	**177,992**
	DIFFERENCE:	**27,301**	**29,471**	**30,842**	**32,215**	**33,589**
FIFTH YEAR	Groundwater	138,090	143,630	149,100	154,490	159,820
	Surface Water – USBR	45,000	45,000	45,000	45,000	45,000
	Surface Water – FID	125,840	125,840	125,840	125,840	125,840
	Recycled Water	5,910	5,910	5,910	5,910	5,910
	SUPPLY TOTALS	**314,840**	**320,380**	**325,850**	**331,240**	**336,570**
	Potable Demand	136,504	147,356	154,210	161,076	167,947
	Non-Potable Demand	62,700	65,400	68,100	70,800	73,500
	DEMAND TOTALS	**199,204**	**212,756**	**222,310**	**231,876**	**241,447**
	DIFFERENCE:	**115,636**	**107,624**	**103,540**	**99,364**	**95,123**

Source: 2020 UWMP, July 2021. WSC

8.0 SUMMARY

The purpose of this Water Supply Assessment (WSA) for the Tower District Specific Plan (TDSP) is to comply with the provisions of Senate Bill 610 (SB 610). The TDSP Project area, and its corresponding demand calculations, were accounted for in the City of Fresno **2020 Urban Water Management Plan**, adopted June 2021. Most of the information required by SB 610 can be obtained from the 2020 UWMP. The 2020 UWMP relied on the City of Fresno General Plan as the primary growth planning document for the baseline water service area population projections, and land uses assumptions.

The WSA quantified the additional water demands resulting from the proposed land uses changes at 80 afy. The WSA is finding that this additional water demand is considered not significant, and is covered by the excess supplies, though the horizon of 2045, as identified in the City of Fresno 2020 UWMP.

The excess supplies can cover this additional 80 afy during normal years, during single dry years, and during multiple dry years.

Thus, the WSA is finding the proposed TDSP Project has no significant impact to the City of Fresno water supplies, and through the horizon year of 2045.