

**CITY OF MERCED**  
**PLANNING & PERMITTING DIVISION**

**TYPE OF PROPOSAL:** General Plan Amendment #24-01/ Northeast Yosemite Specific Plan  
Amendment #6/Tentative Subdivision Map #1329

**INITIAL STUDY:** #24-07

**DATE RECEIVED:** March 19, 2025 (date application determined to be complete)

**LOCATION:** 800 E. Cardella Road

**ASSESSOR'S PARCEL NUMBERS:** 231-010-021(SEE ATTACHED MAP AT ATTACHMENT A)

Please forward any written comments by May 7, 2025 to:

Francisco Mendoza-Gonzalez, Senior Planner  
City of Merced Planning & Permitting Division  
678 West 18<sup>th</sup> Street  
Merced, CA 95340  
209-385-6929  
[mendozaf@cityofmerced.org](mailto:mendozaf@cityofmerced.org)

**Applicant Contact Information:**

Attn: Stonefield Home, Inc.  
923 E. Pacheco Blvd., Suite C  
Los Banos, CA 90071  
(559) 970-6718  
[tiffanie@stonefieldhome.com](mailto:tiffanie@stonefieldhome.com)

---

**PROJECT DESCRIPTION**

The subject site is an approximate 39.12-acre undeveloped parcel (APN: 231-010-021) located in northeast Merced at 800 E. Cardella Road (Attachment A). The subject site is generally located on the south side of E. Cardella Road, approximately 1,900 feet east of G Street. The subject site has a General Plan designation of Low Density Residential (LD) and High-Medium Density Residential (HMD), and Zoning classifications of Low Density Residential (R-1-6) and Medium Density Residential (R-3-2). The subject site is surrounded by a variety of uses which includes, to the west, Cruickshank Middle School/agricultural land, to the south, single-family homes, to the east by undeveloped land, and to the north (across E. Cardella Road) by agricultural land.

The applicant is requesting approval to develop the Paulson Ranch Subdivision, 104 single-family homes constructed over seven phases (Attachment E). These lots would generally range in size between 6,000 square feet and 14,250 square feet, with the majority of the lots being between 6,000 square feet and 7,000 square feet. The General Plan designations of Low Density Residential (LD) and High-Medium Density Residential (HMD) are primarily intended for residential uses. The LD designation allows for residential density between 2 and 6 units per acre, and the HMD designation allows a residential density between 12 and 24 dwelling units per acre. The HMD portion of the Project has a density of approximately 4 dwelling units per acre and the LD portion

has a density of approximately 3 units per acre, both below the allowable density range for each designation.

Generally, the proposal is consistent with the General Plan land use designations for this site. However, the applicant is requesting a General Plan amendment to amend the City's General Plan Circulation Element (Figure 4.1) to eliminate the collector road of Destiny Drive going through the subject site (see Attachments B and C). Destiny Drive would retain its Circulation Element designation as a collector road west of the project site to G Street. However, due to wetland constraints on the eastern portion of the subject site, Destiny Drive would not be able to extend through the subject site to Paulson Road based on a field survey conducted by Galloway Enterprises for the applicant (Attachment D).

#### Development Standards and Elevations

The developer has yet to submit building designs for the 104 lots. Because the subject site does not have a Zoning classification of Planned Development, the building design/elevations would be reviewed and approved by Planning staff prior to issuance of a building permit for these homes. These homes would have to comply with the City's minimum design standards for single-family homes as required under Merced Municipal Code Section 20.46.020 - Design Standards for Single-Family Dwellings and Mobile Homes.

#### Subdivision Layout

The Paulson Ranch subdivision includes a north/south collector road (Paulson Road) located on the eastern portion of the subject site which would provide direct vehicle access from the subdivision to Yosemite Avenue (to the south) and Cardella Road (to the north), both arterial roads. The proposal includes 6 cul-de-sacs throughout the subdivision, and planned connections to the west with the construction of Street A and Street G (both local streets) shown on the proposed site plan (Attachment E). The proposal also includes a storm basin/open space lot (0.89 acres) within the southwest portion of the subdivision, and additional open space on Lot A (approximately 5.18 acres) that would remain undeveloped due to wetland constraints within this area.

#### Project Location

The subject site is located within the northeast quadrant of Merced. The subject site is surrounded by a variety of uses which includes, to the west by Cruickshank Middle School/agricultural land, to the south by single-family homes, to the east by undeveloped land, and to the north (across from E. Cardella Road) by agricultural land. The table below identifies the surrounding uses:

<b>Table 1      Surrounding Uses (Refer to Attachment A)</b>			
<b>Surrounding Land</b>	<b>Existing Use of Land</b>	<b>Zoning Designation</b>	<b>City General Plan Land Use Designation</b>
North	Agriculture (across Cardella Road)	Planned Development (P-D) #53	Neighborhood Commercial (CN)
South	Single-Family Homes	Low Density Residential (R-1-6)	Low Density Residential (LD)
East	Undeveloped Land	Low Density Residential	Low Density Residential (LD)

		(R-1-6) and Commercial Office (C-O)	and Commercial Office (CO)
West	Undeveloped Land and Cruickshank Middle School	Low Density Residential (R-1-6)	Low Density Residential (LD), Parks and Open Space (P-OS), and School (SCH)

## 1. INITIAL FINDINGS

- A. The proposal is a project as defined by CEQA Guidelines Section 15378.
- B. The Project is not a ministerial or emergency project as defined under CEQA Guidelines (Sections 15369 and 15369).
- C. The Project is therefore discretionary and subject to CEQA (Section 15357).
- D. The Project is not Categorically Exempt.
- E. The Project is not Statutorily Exempt.
- F. Therefore, an Environmental Checklist has been required and filed.

## 2. CHECKLIST FINDINGS

- A. An on-site inspection was made by this reviewer on March 26, 2025.
- B. The checklist was prepared on April 9, 2025.
- C. The *Merced Vision 2030 General Plan* and its associated Environmental Impact Report [EIR (SCH# 2008071069)] were certified in January 2012. The document comprehensively examined the potential environmental impacts that may occur as a result of build-out of the 28,576-acre Merced (SUDP/SOI). For those significant environmental impacts (Loss of Agricultural Soils and Air Quality) for which no mitigation measures were available, the City adopted a Statement of Overriding Considerations (City Council Resolution #2011-63). This document herein incorporates by reference the *Merced Vision 2030 General Plan*, the *General Plan Program EIR* (SCH# 2008071069), and Resolution #2011-63.

As a subsequent development project within the SUDP/SOI, many potential environmental effects of the Project have been previously considered at the program level and addressed within the General Plan and associated EIR. (Copies of the General Plan and its EIR are available for review at the City of Merced Planning and Permitting Division, 678 West 18th Street, Merced, CA 95340.) As a second-tier environmental document, Initial Study #24-07 plans to incorporate goals and policies to implement actions of the *Merced Vision 2030 General Plan*, along with mitigation measures from the General Plan EIR, as mitigation for potential impacts of the Project.

Project-level environmental impacts and mitigation measures (if applicable) have been identified through site-specific review by City staff. This study also utilizes existing technical information contained in prior documents and incorporates this information into this study.

### 3. ENVIRONMENTAL IMPACTS:

Will the proposed project result in significant impacts in any of the listed categories? Significant impacts are those that are substantial, or potentially substantial, changes that may adversely affect the physical conditions within the area affected by the Project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant. (Section 15372, State CEQA Guidelines. Appendix G of the Guidelines contains examples of possible significant effects.)

A narrative description of all “potentially significant,” “negative declaration: potentially significant unless mitigation incorporated,” and “less than significant impact” answers are provided within this Initial Study.

#### A. Aesthetics

##### SETTING AND DESCRIPTION

The project site is located in northeast Merced, approximately two and a half miles northeast of Downtown and three and three-quarter miles north of Highway 99. The project site consists of an undeveloped lot totaling approximately 39.12 acres. The subject site is surrounded by a variety of uses which includes to the west by Cruickshank Middle School and agricultural land, to the south by single-family homes, to the east by undeveloped land, and to the north (across from E. Cardella Road) by agricultural land. These buildings and structures range in height, between 15 and 30 feet with the middle school having structures over 30 feet and the nearby hospital (Dignity Health Hospital) having multiple stories (8).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>A. <u>Aesthetics.</u> Will the Project:</b>				
1) Have a substantial adverse effect on a scenic vista?			✓	
2) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
3) Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	



	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			✓	

### 1) Less Than Significant Impact

No designated scenic vistas exist on the project site or in the project area. Additionally, the heights allowed for single-family homes are such that they would not have a substantial adverse effect on a scenic vista. Therefore, impacts in this regard would be less than significant.

### 2) No Impact

There are no officially designated State Scenic Highways or Routes in the project vicinity. Therefore, the Project would have no impact on scenic resources, such as rock outcroppings, trees, or historic buildings within a scenic highway.

### 3) Less-Than-Significant Impact

The proposed Project would transform the site from an undeveloped site to a mostly fully developed site. Undeveloped lots tend to lead to concerns about weed abatement, waste drop-off, and general dilapidation. The proposed homes, and streets would mostly develop the site. The homes would add architectural interest with the use of stucco, and board and batten. Based on these factors, this impact is considered to be less than significant.

### 4) Less Than Significant

Construction of the proposed project and off-site improvements include new lighting on the homes and throughout the site. This new lighting could be a source of light or glare that would affect the views in the area. However, the City of Merced has adopted the California Green Building Standards Code (CGBSC) as Section 17.07 of the Merced Municipal Code. As administered by the City, the Green Building Standards Code prohibits the spillage of light from one lot to another. This would prevent new glare effects on the existing buildings surrounding the project site.

## B. Agriculture Resources

### SETTING AND DESCRIPTION

Merced County is among the largest agriculture producing Counties in California, with a gross income of more than \$4.4 billion. The County's leading agriculture commodities include milk, almonds, cattle and calves, chickens, sweet potatoes, and tomatoes.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>B. <u>Agriculture Resources.</u></b> Will the Project:				
1) 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-agriculture?			✓	
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
3) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?			✓	
4) Cause development of non-agricultural uses within 1,000 feet of agriculturally zoned property (Right-to-Farm)?				✓

### 1) **Less than Significant Impact**

The project site is located within the City Limits of Merced. The California Department of Conservation prepares Important Farmland Maps through its Farmlands Mapping and Monitoring Program (FMMP). The system of classifying areas is based on soil type and use. According to the Merced County Important Farmlands Map, the project site is classified as “Farmland of Local of Importance.” The conversion of this land from an undeveloped lot to a developed urban parcel was analyzed as part of the Environmental Review for the *Merced Vision 2030 General Plan*. The development of housing on “Farmland of Local Importance” that is not “Prime Farmland Unique Farmland, or Farmland of Statewide Importance (Farmland)” is considered to have less than significant impact. Therefore, CEQA requires no further review.

### 2) **No Impact**

There are no Williamson Act contract lands in this area and the land is not being used for agricultural uses. Therefore, there is no impact.

### 3) **Less-Than-Significant Impact**

Refer to Item #1 above.

#### 4) No Impact

The nearest land being used for farming is located approximately one hundred feet north of the subject site, across Cardella Road. However, final maps have recently been approved to construct homes here. The proposed development would not affect farming operations.

### C. Air Quality

#### SETTING AND DESCRIPTION

The project site is in the San Joaquin Valley Air Basin (SJVAB), which includes the southern half of the Central Valley and is approximately 250 miles long and an average of 35 miles wide. The Coast Ranges, which have an average height of 3,000 feet, serve as the western border of the SJVAB. The San Emigdio Mountains, part of the Coast Ranges, and the Tehachapi Mountains, part of the Sierra Nevada, are both south of the SJVAB. The Sierra Nevada extends in a northwesterly direction and forms the air basin's eastern boundary. The SJVAB is mostly flat with a downward gradient to the northwest.

The climate of the SJVAB is heavily influenced by the presence of these mountain ranges. The mountain ranges to the west and south induce winter storms from the Pacific Ocean to release precipitation on the western slopes, producing a partial rain shadow over the valley. A rain shadow is defined as the region on the leeward side of a mountain where noticeably less precipitation occurs because clouds and precipitation on the windward side remove moisture from the air. In addition, the mountain ranges block the free circulation of air to the east and entrap stable air in the Central Valley for extended periods during the cooler months.

Winters in the SJVAB are mild and fairly humid, and summers are hot, dry, and typically cloudless. During the summer, a high-pressure cell is centered over the northeastern Pacific, resulting in stable meteorological conditions and steady northwesterly winds.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>C. <u>Air Quality</u>.</b> Would the project:				
1) Conflict with or obstruct implementation of the applicable air quality plan?			✓	
2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O <sub>3</sub> precursors)?			✓	
3) Expose sensitive receptors to substantial pollutant concentrations?			✓	
4) Create objectionable odors affecting a substantial number of people?			✓	

Impacts are evaluated below on the basis of both State CEQA Guidelines Appendix G criteria and SJVAPCD significance criteria.

SJVAPCD's thresholds for determining environmental significance separate a project's short-term emissions from long-term emissions. The short-term emissions are related mainly to the construction phase of a project. For this project, the long-term emissions are related primarily to household trips.

### 1) **Less-than-Significant Impact**

Thresholds of significance applied in this report are from the San Joaquin Valley Air Pollution Control District (SJVAPCD) is "Guidance for Assessing and Mitigating Air Quality Impacts" (GAMAQI) (San Joaquin Valley Air Pollution Control District 2015). These thresholds define an identifiable quantitative, qualitative, or performance level of a particular environmental effect. Project-related emission levels which exceed any of the thresholds of significance means the project-related effect will normally be considered significant. Project related emissions at or below the thresholds of significance means the project-related effect normally will be considered to be less than significant.

The SJVAPCD has established thresholds of significance for criteria pollutant emissions generated during construction and operation of projects. The significance thresholds presented in the SJVAPCD GAMAQI are based on the attainment status of the San Joaquin Valley Air Basin in regard to air quality standards for specific criteria pollutants. Because the air quality standards are set at concentrations that protect 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.

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.

The *Merced Vision 2030 General Plan* (City of Merced, 2012) is the applicable general plan. However, the population projections used in the previous general plan, the *Merced Vision 2015 General Plan* (City of Merced 1997), included projects through 2035 and were higher than those used in the 2030 General Plan (see Table C-4). The project site has a residential land use designation in the *Merced Vision 2030 General Plan*. The project site is currently designated for residential. The proposed General Plan Amendment is to modify the City's Circulation Element, and does not include any changes to the existing General Plan land use designations for the subject site. The proposed 104 dwelling units for this project are within the allowed range within the General Plan (would allow a maximum of 655 dwelling units). Therefore, implementation of the project would not exceed the assumptions used to develop the air quality plans and would neither obstruct nor conflict with implementation strategies. The impact would be less than significant.

---

**Table C-4**  
**Population Projections in the Current and Previous Merced General Plans**

<b>Year</b>	<b>Population within City 2015 SUDP Area</b>	<b>Percent of Merced County</b>
<b><i>Merced Vision 2015 General Plan (1997): 1990–2035 Projections</i></b>		
1990	60,900	34.1
1995	83,830	35.2
2000	89,940	35.5
2010	116,800	38.3
2015	133,250	39.2
2020	149,700	39.7
2035	202,070	42.3
<b><i>Merced Vision 2030 General Plan (2012): 2000–2030 Projections</i></b>		
2000	63,893	30.4
2005	74,010	30.7
2010	85,798	31.1
2015	99,463	31.6
2020	115,305	32.1
2030	154,961	33.7

Notes: City = City of Merced; SUDP = Specific Urban Development Plan

Sources: City of Merced 1997, 2012

## 2) **Less-than-Significant Impact**

As part of the building permit review process, the applicant is required to consult with the San Joaquin Valley Air Pollution Control District (SJVAPCD). The developer is responsible for adhering to all air quality mitigation measures during the construction phase as required by the SJVAPCD and the California Building Code. Due to these permitting requirements, the impact would be less than significant.

## 3) **Less-than-Significant Impact**

Sensitive receptors are facilities that house or attract children, the elderly, and people with illnesses, or other people who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, schools, convalescent facilities, and residential areas. The project is on undeveloped land in an area partly developed with residential uses.

The greatest potential for project-related emissions of toxic air contaminants (TACs) is related to the diesel PM emissions that would be generated by heavy-duty construction equipment. Off-road construction equipment used for the project would generate diesel exhaust PM emissions. According to the Office of Environmental Health Hazard Assessment, health risk assessments that determine the health risks associated with exposure of residential receptors to TAC emissions should be based on a 30-year exposure period (OEHHA 2015). However, health risk assessments should be limited to the period/duration of emissions-generating activity. Project construction would last

approximately 6 months to build a home, less than 2 percent of the required exposure period for health risk assessments.

Neither construction-related nor operational emissions for the project would exceed the thresholds of significance. Therefore, the project would not expose nearby sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.

4) **Less-than-Significant Impact**

Given the use of heavy equipment during construction, the time- of-day heavy equipment would be operated, the project would not emit objectionable odors that would be adversely affect a substantial number of people. Operation of the project would not emit odors. Therefore, construction and operation of the project would have a less-than-significant impact associated with odors. This impact would be less than significant.

## **D. Biological Resources**

### **SETTING AND DESCRIPTION**

The project site is located in northeast Merced, approximately two and a half miles northeast of Downtown and three and three-quarter miles north of Highway 99. The project site consists of an undeveloped lot totaling approximately 39.12 acres. The subject site is surrounded by a variety of uses which includes to the west by Cruickshank Middle School and undeveloped land, to the south by single-family homes, to the east by agricultural land, and to the north (across from E. Cardella Road) by agricultural land. The buildings and structures in this area generally range in height between 15 and 30 feet with the middle school having structures over 30 feet and the nearby hospital (Dignity Health Hospital) having multiple stories (8).

The general project area is located in the Central California Valley eco-region (Omernik 1987). This eco-region is characterized by flat, intensively farmed plains with long, hot, dry summers and cool, wet winters (14-20 inches of precipitation per year). The Central California Valley eco-region includes the Sacramento Valley to the north, the San Joaquin Valley to the south, and it ranges between the Sierra Nevada Foothills to the east and the Coastal Range foothills to the west. Nearly half of the eco-region is actively farmed, and about three-fourths of that farmed land is irrigated.

The biological resources evaluation, prepared as part of the *Merced Vision 2030 General Plan Program Environmental Impact Report* (EIR), does not identify the project area as containing any seasonal or non-seasonal wetland or vernal pool areas. However, Gallaway Enterprises conducted a field survey of the project site and identified areas where historical flooding from adjacent waterways created wetlands. The map at Attachment D identifies the wetland areas. The proposed subdivision (Paulson Ranch) is being designed to avoid these areas.

---

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>D. <u>Biological Resources.</u> Would the Project:</b>				
1) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			✓	
3) 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?				✓
4) 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?				✓
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✓	
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓

### 1) No Impact

The proposed project would not have any direct effects on animal life by changing the diversity of species, number of species, reducing the range of any rare or endangered species, introducing any new species, or leading to deterioration of existing fish or wildlife habitat. Although the *Merced Vision 2030 General Plan* identifies several species of plant and animal life that exist within the City's urban boundaries, the subject site does not contain any rare or endangered species of plant or animal life.

**2) Less-than -Significant Impact**

The proposed project would not have any direct effects on riparian habitat or any other sensitive natural community. The City General Plan identifies Bear, Black Rascal, Cottonwood, Miles, Fahrens, and Owens Creeks within the City's growth area. The subject site is approximately 2.20 miles north of Bear Creek and 1.20 miles north of Black Rascal Creek. These creeks are Waters of the U.S. under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), the California Department of Fish and Wildlife (CDFW), and the Regional Water Quality Control Board.

However, Cottonwood Creek is located southwest (adjacent) of the subject site. The proposal would have to comply with Merced Municipal Code Chapter 20.34 – Creek Buffers, which is intended to reduce the risks to property owners and the public from erosion and flooding, protect and enhance chemical, physical, and biological integrity of water resources in the City, minimize pollutants entering water bodies from urban stormwater runoff, and preserve riparian vegetation and protect vegetation and protect wildlife habitats and wildlife corridors along natural drainage ways.

As previously mentioned, Gallaway Enterprises conducted a field survey and identified wetland areas that should be avoided within this site (Attachment D). The subdivision is being designed so that all development, including right-of-way development such as roads and sidewalks, along with the proposed homes are located outside of the identified wetland areas.

Additionally, any proposed "fill" of waterways would be subject to permits from ACOE, CDFW, and the Regional Water Quality Control Board. No such "fill" or disturbance of the waterway is proposed as part of this development. The City's General Plan requires the preservation of creek in its natural state. Therefore, the Project would have a less-than-significant impact on riparian habitat.

**3) No Impact**

The project site would not have any direct effect on wetlands as the subdivision is being built around the wetland areas identified at Attachment D.

**4) No Impact**

The Project would not have any adverse effects on any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridor or impede the use of native wildlife nursery sites.

**5) Less Than Significant Impact**

The Project would not interfere with any local policies or ordinances protecting biological resources such as tree preservation policy or ordinance. The City requires the planting and maintenance of street trees along all streets and parking lot trees in parking lots, but has no other tree preservation ordinances.

**6) No Impact**

The proposed project would not conflict with the provisions of a habitat conservation plan. There are no adopted Habitat Conservation Plans, Natural Conservation Community Plan,

---



or other approved local, regional, or state Habitat Conservation Plan for the City of Merced or Merced County.

## **E. Cultural Resources**

### **SETTING AND DESCRIPTION**

The City of Merced area lies within the ethnographic territory of the Yokuts people. The Yokuts were members of the Penutian language family which held all of the Central Valley, San Francisco Bay Area, and the Pacific Coast from Marin County to near Point Sur.

Merced County was first explored by Gabriel Moraga in 1806, when he named the Merced River, “El Rio de Nuestra Senora de la Merced.” Moraga’s explorations were designed to locate appropriate sites for an inland chain of missions. Moraga explored the region again in 1808 and 1810.

### **Archaeology**

Archaeological sites are defined as locations containing significant levels of resources that identify human activity. Very little archaeological survey work has been conducted within the City or its surrounding areas. Creeks, drainage, and sloughs exist in the northern expansion area of the City, and Bear Creek and Cottonwood Creek pass through the developed area. Archaeological sites in the Central Valley are commonly located adjacent to waterways and represent potential for significant archaeological resources.

Paleontological sites are those that show evidence of pre-human existence. They are small outcroppings visible on the earth’s surface. While the surface outcroppings are important indications of paleontological resources, it is the geological formations that are the most important. There are no known sites within the project area known to contain paleontological resources of significance.

### **Historic Resources**

In 1985, in response to community concerns over the loss of some of the City’s historic resources, and the perceived threats to many remaining resources, a survey of historic buildings was undertaken in the City. The survey focused on pre-1941 districts, buildings, structures, and objects of historical, architectural, and cultural significance. The survey area included a roughly four square-mile area of the central portion of the City.

The National Register of Historic Places, the California Historical Landmarks List, and the California Inventory of Historic Resources identify several sites within the City of Merced. These sites are listed on the Merced Historical Site Survey and are maintained by the Merced Historical Society. There are no listed historical sites on the project site.

According to the environmental review conducted for the General Plan, there are no listed historical sites and no known locations within the project area that contain sites of paleontologic or archeological significance. The General Plan (Implementation Action SD-2.1.a) requires that the City utilize standard practices for preserving archeological materials that are unearthed during construction, as prescribed by the State Office of Historic Preservation.

---

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>E. <u>Cultural Resources.</u> Would the Project:</b>				
1) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?			✓	
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?			✓	
3) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	
4) Disturb any human remains, including those interred outside of formal cemeteries?			✓	

### 1) **Less-than-Significant Impact**

The Project would not alter or destroy any known historic or archaeological site, building, structure, or object; nor would it alter or affect unique ethnic cultural values or restrict religious or sacred uses. According to the environmental review conducted for the General Plan, there are no listed historical sites and no known locations within the project area that contain sites of historical or archeological significance. The General Plan (Implementation Action SD-2.1.a) requires that the City utilize standard practices for preserving archeological materials that are unearthed during construction, as prescribed by the State Office of Historic Preservation.

### 2) **Less-than-Significant Impact**

The Project would not alter or destroy any known prehistoric or archaeological site, building, structure, or object; nor would it alter or affect unique ethnic cultural values or restrict religious or sacred uses. According to the environmental review conducted for the General Plan, there are no listed historical sites and no known locations within the project area that contain sites of historical or archeological significance. The General Plan (Implementation Action SD-2.1.a) requires that the City utilize standard practices for preserving archeological materials that are unearthed during construction, as prescribed by the State Office of Historic Preservation.

### 3) **Less-than-Significant Impact**

The Project would not alter or destroy any paleontological resource, site, or unique geological feature. According to the environmental review conducted for the General Plan, there are no listed historical sites and no known locations within the project area that contain sites of paleontological significance. The General Plan (Implementation Action SD-2.1.a) requires that the City utilize standard practices for preserving archeological materials that are unearthed during construction, as prescribed by the State Office of Historic Preservation.

#### 4) **Less-than-Significant Impact**

The proposed project would not disturb any known human remains, including those interred outside of formal cemeteries; nor would it alter or affect unique ethnic cultural values or restrict religious or sacred uses. There are no known cemeteries in the project area. Excavation of the site would be needed to construct the proposed project, so it is possible that human remains would be discovered. However, Section 7050.5 of the California Health and Safety Code requires that if human remains are discovered during the construction phase of a development, all work must stop in the immediate vicinity of the find and the County Coroner must be notified. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner the appropriate method for the disposition of the remains and any associated grave goods. Additionally, the City's General Plan (Implementing Action SD-2.1.a) requires that the City utilize standard practices for preserving archeological materials that are unearthed during construction, as prescribed by the State Office of Historic Preservation. By following the requirements of the Health and Safety Code and Compliance with the City's General Plan, this potential impact would be less than significant.

### **F. Geology and Soils**

#### **SETTING AND DESCRIPTION**

The City of Merced is located approximately 150 miles southeast of San Francisco along the east side of the southern portion of the Great Valley Geomorphic Province, more commonly referred to as the San Joaquin Valley. The valley is a broad lowland bounded by the Sierra Nevada to the east and Coastal Ranges to the west. The San Joaquin Valley has been filled with a thick sequence of sedimentary deposits from Jurassic to recent age. A review of the geological map indicates that the area around Merced is primarily underlain by the Pleistocene Modesto and Riverbank Formations with Holocene alluvial deposits in the drainages. Miocene-Pliocene Mehrten and Pliocene Laguna Formation materials are present in outcrops on the east side of the SUDP/SOI. Modesto and Riverbank Formation deposits are characterized by sand and silt alluvium derived from weathering of rocks deposited east of the SUDP/SOI. The Laguna Formation is made up of consolidated gravel sand and silt alluvium and the Mehrten Formation is generally a well consolidated andesitic mudflow breccia conglomerate.

#### **Faults and Seismicity**

A fault, or a fracture in the crust of the earth along which rocks on one side have moved relative to those on the other side, are an indication of past seismic activity. It is assumed that those that have been active recently are the most likely to be active in the future, although even inactive faults may not be "dead." "Potentially Active" faults are those that have been active during the past two million years or during the Quaternary Period. "Active" faults are those that have been active within the past 11,000 years. Earthquakes originate where movement or slippage occurs along an active fault. These movements generate shock waves that result in ground shaking.

Based on review of geologic maps and reports for the area, there are no known "active" or "potentially active" faults, or Alquist-Priolo Earthquake Fault Zones (formerly referred to as a

---

Special Studies Zone) in the SUDP/SOI. In order to determine the distance of known active faults within 50 miles of the Site, the computer program EZ-FRISK was used in the General Plan update.

### Soils

Soil properties can influence the development of building sites, including site selection, structural design, construction, performance after construction, and maintenance. Soil properties that affect the load-supporting capacity of an area include depth to groundwater, ponding, flooding, subsidence, shrink-swell potential, and compressibility.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>F. <u>Geology and Soils.</u> Would the Project:</b>				
1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
a) 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?			✓	
b) Strong seismic ground shaking?			✓	
c) Seismic-related ground failure, including liquefaction?			✓	
d) Landslides?			✓	
2) Result in substantial soil erosion or loss of topsoil?			✓	
3) 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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?			✓	
4) 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?			✓	

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5) 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?				✓

### 1) Less than Significant Impact

The project site is not located within a mapped fault hazard zone, and there is no record or evidence of faulting on the project site (City of Merced General Plan Figure 11.1). Because no faults underlie the project site, no people or structures would be exposed to substantial adverse effects related to earthquake rupture.

According to the City's *Merced Vision 2030 General Plan* EIR, the probability of soil liquefaction occurring within the City of Merced is considered to be a low to moderate hazard; however, a detailed geotechnical engineering investigation would be required for the project in compliance with the California Building Code (CBC).

There would be no exposure to any geological hazards in the project area.

Ground shaking of moderate severity may be expected to be experienced on the project site during a large seismic event. All building permits are reviewed to ensure compliance with the California Building Code (CBC). In addition, the City enforces the provisions of the Alquist Priolo Special Study Zones Act that limit development in areas identified as having special seismic hazards. All new structures shall be designed and built-in accordance with the standards of the California Building Code.

## APPLICABLE GENERAL PLAN GOALS AND POLICIES

The City's *Merced Vision 2030 General Plan* contains policies that address seismic safety.

<i>Goal Area S-2: Seismic Safety:</i>	
<b>Goal: Reasonable Safety for City Residents from the Hazards of Earthquake and Other Geologic Activity</b>	
<b>Policies</b>	
<b>S-2.1</b>	Restrict urban development in all areas with potential ground failure characteristics.

The Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

Landslides generally occur on slopes of 15 percent or greater. The project site's topography is generally of slopes between 0 and 3 percent, which are considered insufficient to produce hazards other than minor sliding during seismic activity.

Therefore, no hazardous conditions related to seismic ground shaking would occur with the implementation of the Project. Additionally, the implementation of the project would not lead to offsite effects related to hazards related to seismic groundshaking, nor would any existing off-site hazards be exacerbated.

**2) Less-Than-Significant Impact**

Construction associated with the proposed project could result in temporary soil erosion and the loss of topsoil due to construction activities, including clearing, grading, site preparation activities, and installation of the proposed buildings and other improvements. The City of Merced enforces a Storm Water Management Program in compliance with the Federal Clean Water Act. All construction activities are required to comply with the City's Erosion and Sediment Control Ordinance (MMC §15.50.120.B), including the implementation of Best Management Practices (BMPs) to limit the discharge of sediment.

**3) Less Than Significant Impact**

The City of Merced is located in the Valley area of Merced County and is, therefore, less likely to experience landslides than other areas in the County. The probability of soil liquefaction actually taking place anywhere in the City of Merced is considered to be a low hazard. Soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. According to the *Merced Vision 2030 General Plan* EIR, no significant free face failures were observed within this area and the potential for lurch cracking and lateral spreading is, therefore, very low within this area.

**4) Less-Than-Significant**

Expansive soils are those possessing clay particles that react to moisture changes by shrinking (when they dry) or swelling (when they become wet). Expansive soils can also consist of silty to sandy clay. The extent of shrinking and swelling is influenced by the environment, extent of wet or dry cycles, and by the amount of clay in the soil. This physical change in the soils can react unfavorably with building foundations, concrete walkways, swimming pools, roadways, and masonry walls.

Implementation of General Plan Policies, adherence to the Alquist-Priolo Act, and enforcement of the California Building Code (CBC) Standards would reduce the effect of this hazard on new buildings and infrastructure associated with the proposed development. This would reduce potential impacts to a less-than-significant level.

**5) No Impact**

The Project site would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. However, the proposed project would be served by the City's sewer system. No new septic systems are allowed within the City Limits and any existing systems will need to be removed upon demolition of the current home on the site.

---

## **G. Hazards and Hazardous Materials**

### **SETTING AND DESCRIPTION**

#### **Hazardous Materials**

A substance may be considered hazardous due to a number of criteria, including toxicity, ignitability, corrosivity, or reactivity. The term “hazardous material” is defined in law as any material that, because of quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

#### **Wildland and Urban Fire Hazards**

Both urban and wildland fire hazard potential exists in the City of Merced and surrounding areas, creating the potential for injury, loss of life, and property damage. Urban fires primarily involve the uncontrolled burning of residential, commercial, or industrial structures due to human activities. Wildland fires affect grassland, brush or woodlands, and any structures on or near these fires. Such fires can result from either human made or natural causes.

Urban fires comprise the majority of fires in the City of Merced. The site is adjacent to undeveloped ag land which could be a source for a wildland fire. However, the City of Merced Fire Department has procedures in place to address the issue of wildland fires, so no additional mitigation would be necessary.

#### **Airport Safety**

The City of Merced is impacted by the presence of two airports; the Merced Regional Airport, which is in the southwest corner of the City, and Castle Airport (the former Castle Air Force Base), located approximately six miles northwest of the subject site.

The continued operation of the Merced Regional Airport involves various hazards to both flight (physical obstructions in the airspace or land use characteristics which affect flight safety) and safety on the ground (damage due to an aircraft accident). Growth is restricted around the Regional Airport in the southwest corner of the City due to the noise and safety hazards associated with the flight path.

Castle Airport also impacts the City. Portions of the northwest part of the City’s SUDP/SOI and the incorporated City are within Castle’s safety zones. The primary impact is due to noise (Zones C and D), though small areas have density restrictions (Zone B2). The military discontinued operations at Castle in 1995. One important criterion for determining the various zones is the noise factor. Military aircraft are designed solely for performance, whereas civilian aircraft have extensive design features to control noise.

Potential hazards to flight include physical obstructions and other land use characteristics that can affect flight safety, which include: visual hazards such as distracting lights, glare, and sources of smoke; electronic interference with aircraft instruments or radio communications; and uses which may attract flocks of birds. In order to safeguard an airport's long-term usability, preventing encroachment of objects into the surrounding airspace is imperative.

According to the Merced County Airport Land Use Compatibility Plan, the project site is not located in any restricted safety zones for either airport, and no aircraft overflight, air safety, or noise concerns are identified.

---

## Railroad

Hazardous materials are regularly shipped on the BNSF and SP/UP Railroad lines that pass through the City. While unlikely, an incident involving the derailment of a train could result in the spillage of cargo from the train in transporting. The spillage of hazardous materials could have devastating results. The City has little to no control over the types of materials shipped via the rail lines. There is also a safety concern for pedestrians along the tracks and vehicles utilizing at-grade crossings. The design and operation of at-grade crossings allows the City some control over rail-related hazards. Ensuring proper gate operation at the crossings is the most effective strategy to avoid collision and possible derailments. The Burlington Northern Santa Fe Railroad is approximately 2.50 miles south of the site and Union Pacific Railroad is over 3.0 miles south of the site.

## Public Protection and Disaster Planning

Hospitals, ambulance companies, and fire districts provide medical emergency services. Considerable thought and planning have gone into efforts to improve responses to day-to-day emergencies and planning for a general disaster response capability.

The City's Emergency Plan and the County Hazardous Waste Management Plan both deal with detailed emergency response procedures under various conditions for hazardous material spills. The City also works with the State Department of Health Services to establish cleanup plans and to monitor the cleanup of known hazardous waste sites within the City.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>G. <u>Hazards and Hazardous Materials.</u></b> Would the Project:				
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
2) 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?			✓	
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	



	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4) 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?			✓	
5) 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?			✓	
6) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?			✓	
7) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
8) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			✓	

### 1) Less-Than-Significant Impact

Construction activities associated with the proposed project would involve the use, storage, transport, and disposal of oil, gasoline, diesel fuel, paints, solvents, and other hazardous materials. The Project would be required to adhere to all applicable federal and state health and safety standards. Construction activity must also be in compliance with the California Occupational Safety and Health Administration regulations (Occupational Safety and Health Act of 1970). Compliance with these requirements would reduce the risk of hazards to the public to a less-than-significant level.

### 2) Less-Than-Significant Impact

Construction on the project site would be reviewed for the use of hazardous materials at the building permit stage. Implementation of Fire Department and Building Code regulations for hazardous materials, as well as implementation of federal and state requirements, would reduce any risk caused by a future use on the site from hazardous materials to a less than-significant-level.

### APPLICABLE GENERAL PLAN GOALS AND POLICIES

The City of Merced *Vision 2030 General Plan* contains policies that address hazardous materials.

<i>Goal Area S-7: Hazardous Materials</i>	
<b>Goal: Hazardous Materials Safety for City Residents</b>	
<b>Policies</b>	
<b>S-2.1</b>	Prevent injuries and environmental contamination due to the uncontrolled release of hazardous materials.
<b>Implementing Actions:</b>	
<b>7.1.a</b>	Support Merced County in carrying out and enforcing the Merced County Hazardous Waste Management Plan.
<b>7.1.b</b>	Continue to update and enforce local ordinances regulating the permitted use and storage of hazardous gases, liquids, and solids.
<b>7.1.d</b>	Provide continuing training for hazardous materials enforcement and response personnel.

### 3) **Less-Than-Significant Impact**

The nearest school is Cruikshank Middle School, located directly adjacent/southwest of the subject site at 601 Mercy Avenue. Merced Community College is located ½ a mile west of the subject site, at the southwest corner G Street and Community College East Drive. There is land with a General Plan designation for a school directly southeast of the subject site, but this site remains undeveloped. Given the California Building Code protective measures required during the construction process, this developments impacts would be less than significant. Post-construction the site would be used for dwelling purposes only.

### 4) **Less-Than-Significant Impact**

No project actions or operations would result in the release of hazardous materials that could affect the public or the environment, and no significant hazard to the public or the environment would result with project implementation. This potential impact is less than significant.

### 5) **Less-Than-Significant Impact**

The project site is located about 4.50 miles northeast from the Merced Regional Airport. The approximate 39.12-acre site is surrounded by existing residential uses, undeveloped land, or agricultural uses. Given the land use designation and surrounding land use, the potential impact is less than significant.

### 6) **Less-Than-Significant Impact**

The closest private airstrip to the site is approximately 8 miles northeast of the subject site (Flying M Airport). There would be no hazard to people living or working on the project site.

### 7) **Less-Than-Significant Impact**

The proposed project will not adversely affect any adopted emergency response plan or emergency evacuation plan. No additional impacts would result from the development of

the project area over and above those already evaluated by the EIR prepared for the *Merced Vision 2030 General Plan*.

**APPLICABLE GENERAL PLAN GOALS AND POLICIES:**

The *Merced Vision 2030 General Plan* contains policies that address disaster preparedness.

<i>Goal Area S-1: Disaster Preparedness</i>	
<b>Goal: General Disaster Preparedness</b>	
<b>Policies</b>	
<b>S-1.1</b>	Develop and maintain emergency preparedness procedures for the City.
<b>Implementing Actions:</b>	
<b>1.1.a</b>	Keep up-to-date through annual review the City's existing Emergency Plan and coordinate with the countywide Emergency Plan.
<b>1.1.b</b>	Prepare route capacity studies and determine evacuation procedures and routes for different types of disasters, including means for notifying residents of a need to evacuate because of a severe hazard as soon as possible.
<b>7.1.d</b>	Provide continuing training for hazardous materials enforcement and response personnel.

**8) Less-Than-Significant Impact**

According to the EIR prepared for the *Merced Vision 2030 General Plan*, the risk for wildland fire within the City of Merced is minimal. According to the Cal Fire website, the Merced County Fire Hazard Severity Zone Map shows the project site is designated as a "Local Responsibility Area" (LRA) with a Hazard Classification of "LRA Unzoned."

The City of Merced Fire Department is the responsible agency for responding to fires at the subject site. The project site is served by Station #55 located at 3520 Parsons Drive (approximately 0.75 miles southeast from the project site).

Even though there are some surrounding undeveloped lands and agricultural lands, the City of Merced Fire Department has procedures in place to address the issue of wildland fires, so no additional mitigation would be necessary. This potential impact is less than significant.

## **H. Hydrology and Water Quality**

### **SETTING AND DESCRIPTION**

#### **Water Supplies and Facilities**

The City's water supply system consists of 22 wells and 14 pumping stations equipped with variable speed pumps that attempt to maintain 45 to 50 psi (pounds per square inch) nominal water pressure. The City is required to meet State Health pressure requirements, which call for a minimum of 20 psi at every service connection under the annual peak hour condition and

maintenance of the annual average day demand plus fire flow, whichever is stricter. The project site would be serviced by the utilities to the south within Paulson Road.

### ***Storm Drainage/Flooding***

In accordance with the adopted *City of Merced Standard Designs of Common Engineering Structures*, percolation/detention basins are designed to temporarily collect runoff so that it can be metered at acceptable rates into canals and streams that have limited capacity. The project would be required to adhere to the Post Construction Standards for compliance with the City's Phase II MS4 permit issued by the state of California.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>H. <u>Hydrology and Water Quality.</u></b> Would the Project:				
1) Violate any water quality standards or waste discharge requirements?			✓	
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
3) 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:			✓	
a) result in a substantial erosion or siltation on- or off-site;			✓	
b) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			✓	
c) 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			✓	
d) impede or redirect flood flows?			✓	
4) In flood hazard, tsunami, or seiche zones, risk of pollutants due to project inundation?			✓	
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			✓	

### 1) Less-Than-Significant Impact

The Project is not expected to violate any water quality standards or waste discharge requirements during construction or operation. In addition to compliance with standard construction provisions, the Project shall be required to comply with the Merced Storm Water Master Plan and the Storm Water Management Plan, and obtain all required permits for water discharge. During project operations, the City has developed requirements to minimize the impact to storm water quality caused by development and redevelopment. The increase in impervious areas caused by development can cause an increase in the type and quantity of pollutants in storm water runoff. Prior planning and design to minimize pollutants in runoff from these areas is an important component to storm water quality management. These standards are set forth in the City's Post-Construction Standards Plan and provide guidance for post-construction design measures to ensure that storm water quality is maintained. Compliance with these requirements and permits would reduce the impact to a less than significant level.

#### APPLICABLE GENERAL PLAN GOALS AND POLICIES:

The *Merced Vision 2030 General Plan* contains policies that address Water Quality and Storm Drainage.

<i>Goal Area P-5: Storm Drainage and Flood Control</i>	
<b>Goal: An Adequate Storm Drainage Collection and Disposal System in Merced</b>	
<b>Policies</b>	
<b>P-5.1</b>	Provide effective storm drainage facilities for future development.
<b>P-5.2</b>	Integrate drainage facilities with bike paths, sidewalks, recreation facilities, agricultural activities, groundwater recharge, and landscaping.

<b>Implementing Actions:</b>	
<b>5.1.a</b>	Continue to implement the City's Storm Water Master Plan and the Storm Water Management Plan and its control measures.
<b>5.1.c</b>	Continue to require all development to comply with the Storm Water Master Plan and any subsequent updates.

### 2) Less-Than-Significant Impact

The City of Merced is primarily dependent on groundwater sources that draw from the San Joaquin aquifer. The City has 22 active well sites with one under construction, and 14 pumping stations, which provide service to meet peak hour urban level conditions and the average daily demand plus fire flows.

According to the City of Merced Water Master Plan, the estimated average peak water demand is 23.1 mgd.

The proposed project is estimated to use approximately 6,400 gallons of water per day. This would represent approximately 0.0027706 % of the estimated average daily water consumption. Although development of the site would restrict onsite recharge where new

impervious surface areas are created, all alterations to groundwater flow would be captured and routed to the storm water percolation ponds or pervious surfaces with no substantial net loss in recharge potential anticipated. This reduces this impact to a less-than-significant level.

**3) Less-Than-Significant Impact**

The proposed project would result in modifications to the existing drainage pattern on the site. If required by the City's Engineering Department, the project will be designed to capture all surface water runoff onsite and then drain into the City's existing storm drainage system.

The project site is currently vacant and consists of pervious surfaces. The proposed project would create impervious surfaces over a large portion of the project site, thereby preventing precipitation from infiltrating and causing it to pond or runoff. However, stormwater flows would be contained onsite and piped or conveyed to the City's stormwater system, there would be no potential for increased erosion or sedimentation.

Developed storm drainage facilities in the area are adequate to handle this minor increase in flows. The Project would not result in a substantial alteration of drainage in the area, and no offsite uses would be affected by the proposed changes. All potential impacts are less than significant.

**4) Less-Than-Significant Impact**

The proposed Project is located approximately 80 miles from the Pacific Ocean, distant from any large lakes, and are within the inundation zones for Lake Yosemite or Bear Reservoir at an elevation ranging from approximately 173 feet above MSL. According to the City's General Plan Safety Element, the City of Merced is not subject to inundation by tsunami, seiche, or mudflow. This potential impact is less than significant.

**5) Less-Than-Significant Impact**

The proposed project would not obstruct or conflict with the implementation of a water quality control plan or sustainable groundwater management plan. The project would be required to comply with all City of Merced standards and Master Plan requirements for groundwater and water quality control. This impact is less than significant.

## **I. Land Use and Planning**

### **SETTING AND DESCRIPTION**

The subject site is located within the City Limits of Merced and within its Specific Urban Development Plan and Sphere of Influence (SUDP/SOI).

### **SURROUNDING USES**

Refer to Page 2 of this Initial Study and the map at Attachment A for the surrounding land uses.

### **Current Use**

The subject site is approximately 39.12 acres of undeveloped land located at the northwest corner of Paulson Road and Dunn Road.

---

The subject site has a Zoning classification of Low Density Residential (R-1-6) and Medium Density Residential (R-3-2), and a General Plan designation of Low Density Residential (LD) and High-Medium Density Residential (HMD). The existing land use designations for this site allows for low density residential uses such as single-family homes and duplexes, and the medium/high density area allows for single-family homes, apartments, and other housing types. The Paulson Ranch subdivision would amend the currently approved subdivision layout for the Northeast Yosemite Specific Plan.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>I. <u>Land Use and Planning.</u></b> Would the Project:				
1) Physically divide an established community?			✓	
2) 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?			✓	

#### 1) **Less-Than-Significant Impact**

The project site is within the boundaries of the Merced City Limits. It would not physically divide the community as it is already part of the City. This proposal does not include the creation of streets or barriers. This potential impact is less than significant.

#### 2) **Less-Than-Significant Impact**

The subject site has a Zoning classification of Low Density Residential (R-1-6) and Medium Density Residential (R-3-2), and a General Plan designation of Low Density Residential (LD) and High-Medium Density Residential (HMD). The existing land use designations for this site allows for low density residential uses such as single-family homes and duplexes, and the medium/high density area allows for single-family homes, apartments, and other housing type.. The proposed density and uses are consistent with the current land use designations for this site, and compatible with the existing residential single-family homes to the south. Therefore, this impact is less than significant.

## **J. Mineral Resources**

### **SETTING AND DESCRIPTION**

The City of Merced does not contain any mineral resources that require managed production according to the State Mining and Geology Board. Based on observed site conditions and review of geological maps for the area, economic deposits of precious or base metals are not expected to underlie the City of Merced or the project site. According to the California Geological Survey, Aggregate Availability in California - Map Sheet 52, minor aggregate production occurs west and north of the City of Merced, but economic deposits of aggregate minerals are not mined within the

immediate vicinity of the SUDP/SOI. Commercial deposits of oil and gas are not known to occur within the SUDP/SOI or immediate vicinity.

According to the Merced County General Plan Background Report (June 21, 2007), very few traditional hard rock mines exist in the County. The County's mineral resources are almost all sand and gravel mining operations. Approximately 38 square miles of Merced County, in 10 aggregate resource areas (ARA), have been classified by the California Division of Mines and Geology for aggregate. The 10 identified resource areas contain an estimated 1.18 billion tons of concrete resources with approximately 574 million tons in Western Merced County and approximately 605 million tons in Eastern Merced County. Based on available production data and population projections, the Division of Mines and Geology estimated that 144 million tons of aggregate would be needed to satisfy the projected demand for construction aggregate in the County through the year 2049. The available supply of aggregate in Merced County substantially exceeds the current and projected demand.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>J. <u>Mineral Resources.</u> Would the Project:</b>				
1) 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?				✓
2) 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?				✓

**1) No Impact**

No mineral resources occur within City Limits, SUDP/SOI, or within the project site, so no impact.

**2) No Impact**

See #1 above.

## **K. Noise**

### **SETTING AND DESCRIPTION**

Potential noise impacts of the proposed project can be categorized as those resulting from construction and those from operational activities. Construction noise would have a short-term effect; operational noise would continue throughout the lifetime of the project. Construction associated with the development of the project would increase noise levels temporarily during construction. Operational noise associated with the development would occur intermittently with the continued operation of the proposed project.



Some land uses are considered more sensitive to noise levels than other uses. Sensitive land uses can include residences, schools, nursing homes, hospitals, and some public facilities, such as libraries. The noise level experienced at the receptor depends on the distance between the source and the receptor, the presence or absence of noise barriers and other shielding devices, and the amount of noise attenuation (lessening) provided by the intervening terrain. For line sources such as motor or vehicular traffic, noise decreases by about 3.0 to 4.5A –weighted decibels (dBA) for every doubling of the distance from the roadway.

### Noise from Other Existing Sources

Vehicular noise from Mercy Avenue and nearby uses such as Cruikshank Middle School, and Dignity Health Medical Hospital would be the primary existing noise source at the project site. The nearest railroad corridor is approximately 2.5 miles south from the project site. The site is surrounded by various uses that generate operational noise on a daily basis. There are several commercial uses located half a mile southwest of the project site.

According to the *Merced Vision 2030 General Plan*, noise exposure not exceeding 45 dB is considered to be a “normally acceptable” noise level for residential uses.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>K. <u>Noise.</u></b> Would the Project result in:				
1) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			✓	
2) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			✓	
3) 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?			✓	

#### 1) Less Than Significant

##### Construction Noise

Construction of the Project would temporarily increase noise levels in the area during the construction period. Therefore, the noise from construction may be steady for a few months and then cease all together. Construction activities, including site preparation and grading, building construction, and sidewalk and street improvements would be considered an intermittent noise impact throughout the construction period. These activities could result in various effects on sensitive receptors, depending on the presence of intervening

barriers or other insulating materials. The effects will be short term and would result in a less than significant impact.

#### Operational Noise

Operational noise would be the main noise source expected from the proposed project. Traffic coming to and from the project site would generate the most noise. However, the site is surrounded by other residential uses, which are generally expected to generate similar amount of noise as the proposed development. Implementation of the Project would not lead to continued offsite effects related to noise generated by the Project. Given the noise from similar low impact zones near the subject site, this potential impact is less than significant.

#### **2) Less-Than-Significant Impact**

Implementation of the proposed project would not result in the generation of any ground borne vibration or noise. This is a less-than-significant impact.

#### **3) Less-Than-Significant Impact**

The project site is located approximately 4 miles northeast from active areas of the Merced Regional Airport and approximately 7 miles east from the Castle Airport. Therefore, no population working or living at the site would be exposed to excessive levels of aircraft noise. This potential impact is less than significant.

## **L. Population and Housing**

### **SETTING AND DESCRIPTION**

The Paulson Ranch subdivision would develop 104 homes on approximately 39.12 acres located in northeast Merced. The project site has a Zoning classification of Low Density Residential (R-1-6) and Medium Density Residential (R-3-2), and a General Plan designation of Low Density Residential (LD) and High-Medium Density Residential (HMD). The existing land use designations for this site allows for low density residential uses such as single-family homes and duplexes, and the medium/high density area allows for single-family homes, apartments, and other housing types. The 104 lots would generally range in size between 6,000 square feet and 14,250 square feet.

#### Expected Population and Employment Growth

According to the State Department of Finance population estimates for 2023, the City of Merced's population was estimated to be 91,837. Population projections estimate that the Merced SUDP area will have a significant population of 159,900 by the Year 2030.

According to the *Merced Vision 2030 General Plan*, the City of Merced is expected to experience significant population and employment growth by the Year 2030.

---

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>L. <u>Population and Housing.</u></b> Would the Project:				
1) 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)?			✓	
2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓

### 1) **Less-Than-Significant Impact**

The project site is currently designated for residential. The proposed General Plan Amendment is to modify the City's Circulation Element, and does not include any changes to the existing General Plan land use designations for the subject site. The proposed 104 dwelling units for this project are within the allowed range within the General Plan (would allow a maximum of 655 dwelling unit). Based on the need to increase housing supply, his potential impact would be less than significant.

### 2) **No Impact**

There project site is undeveloped. No housing would be displaced as a result of this project. There is no impact.

## **M. Public Services**

### **SETTING AND DESCRIPTION**

#### **Fire Protection**

The City of Merced Fire Department provides fire protection, rescue, and emergency medical services from five fire stations throughout the urban area. Fire Station #55 is located at 3520 Parsons Drive, approximately 0.75 miles southeast from the project site. This Station would serve the proposed Project.

#### **Police Protection**

The City of Merced Police Department provides police protection for the entire City. The Police Department employs a mixture of sworn officers, non-sworn officer positions (clerical, etc.), and unpaid volunteers (VIP). The service standard used for planning future police facilities is approximately 1.37 sworn officers per 1,000 population, per the Public Facilities Financing Plan.

## Schools

The public school system in Merced is served by three districts: 1) Merced City School District (elementary and middle schools); 2) Merced Union High School District (MUHSD); and, 3) Weaver Union School District (serving a small area in the southeastern part of the City with elementary schools). The districts include various elementary schools, middle (junior high) schools, and high schools.

As the City grows, new schools will need to be built to serve our growing population. According to the Development Fee Justification Study for the MUHSD, Merced City Schools students are generated by new development at the following rate:

<b>Table 6 Student Generation Rates</b>		
<b>Commercial/Industrial Category</b>	<b>Elementary (K-8) (Students per 1,000 sq.ft.)</b>	<b>High School (9-12) (Students per 1,000 sq.ft.)</b>
Retail	0.13	0.038
Restaurants	0.00	0.157
Offices	0.28	0.048
Services	0.06	0.022
Wholesale/Warehouse	0.19	0.016
Industrial	0.30	0.147
Residential	0.559 (per unit)	0.109 (per unit)

Based on the table above the proposed 104 residential units would generate 59 K-8 students and 12 high school students.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>M. <u>Public Services.</u> Would the Project:</b>				
1) 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 following public services:				
a) Fire Protection?			✓	
b) Police Protection?			✓	
c) Schools?			✓	
d) Parks?			✓	
e) Other Public Facilities?			✓	

**1) Less Than Significant****a) Fire Protection**

The project site would be served by Fire Station #55 located at 3520 Parsons Drive (approximately 0.75 miles southeast from the project site). The response from this station would meet the desired response time of 4 to 6 minutes, citywide, 90 percent of the time, within the financial constraints of the City. The proposed development would not affect fire protection services, and no new or modified fire facilities would be needed. Any changes to the building or site would be required to meet all requirements of the California Fire Code and the Merced Municipal Code. Compliance with these requirements would reduce any future impacts to a less than significant level.

At the time a building permit is issued, the developer would be required to pay impact fees according to the City Public Facilities Financing Plan (PFFP). A portion of this fee goes to cover the city's costs for fire protection such as fire stations, etc. In addition, the developer would be required to annex into the City's Community Facilities District for Services. This would result in an assessment paid with property taxes in which a portion of the tax would go to pay for fire protection services. Compliance with all Fire, Building, and Municipal Code requirements as well as payment of the Public Facility Impact Fees, and annexation into the City's CFD for services would reduce any potential impacts to a less than significant level.

**b) Police Protection**

The site would be served by the City Police Department. The development of the vacant project site could result in more calls to the site. Implementation of the proposed project would not require any new or modified police facilities.

The same requirements for paying Public Facility Impact Fees and annexation into the City's Community Facilities District for Services would apply with a portion of the fees and taxes collected going toward the costs for police protection. Therefore, this potential impact is reduced to a less-than-significant level.

**c) Schools**

The project site is located within the boundaries of the Merced City School District and Merced Union High School District. Based on the table and discussion provided in the "Settings and Description" section above, the proposed development would likely generate additional students to the school system. As appropriate, the developer would be required to pay all fees due under the Leroy F. Greene School Facilities Act of 1988. Once these fees are paid, the satisfaction of the developer of his statutory fee under California Government Code §65995 is deemed "full and complete mitigation" of school impacts. This potential impact is less than significant.

**d) Parks**

Davenport Park is located approximately 1,000 feet southeast of the subject site. This storage facility may slightly increase the use of neighborhood or regional parks.

---

Payment of the fees required under the Public Facilities Financing Plan (PFFP) as described above would be required at time of building permit issuance to help fund future parks and maintenance of existing parks would be required at the building permit stage. The payment of fees would reduce this potential impact to less than significant.

#### e) Other Public Facilities

The development of the Project could impact the maintenance of public facilities and could generate impacts to other governmental services. Payment of the fees required under the Public Facilities Financing Plan (PFFP) as described above would mitigate these impacts to a less than significant level.

## N. Recreation

### SETTING AND DESCRIPTION

The City of Merced has a well-developed network of parks and recreation facilities. Several City parks and recreation facilities are located within a one-mile radius of the project site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>N. <u>Recreation.</u> Would the Project:</b>				
1) Increase the use of neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
2) 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?				✓

#### 1) Less the Significant Impact

Development of the Project may increase the use of neighborhood or regional parks. However, payment of the required development fees at the building permit stage would reduce the potential impacts to a less than significant level.

#### 2) No Impact

The Project does not include recreational facilities and is not responsible for the construction or expansion of any recreational facilities.

## **O. Transportation/Traffic**

### **SETTING AND DESCRIPTION**

#### ***Roadway System***

The project site is located in northeast Merced, approximately two and a half miles northeast of Downtown and three and three-quarter miles north of Highway 99. The project site consists of an undeveloped lot totaling approximately 39.12 acres. The project site fronts an arterial road (E. Cardella Road), with the nearest north-south road being Paulson Road (collector road) currently terminating south of the project, but would be extended through the project up to Cardella Road. Yosemite Avenue and Cardella Road are both designed to carry large volumes of traffic going through a large portion of the community. The subject site is half a mile east of G Street which provides access to Highway 99 that connects Merced with other regional communities throughout the State.

#### ***Transit Service***

The Transit Joint Powers Authority for Merced County has jurisdiction over public transit in Merced County and operates The Bus. The Bus provides transportation for residents traveling within Merced and outside the City within neighboring communities such as Planada, Atwater, and Livingston. Cat Tracks is a bus service for UC Merced students that also serves the City.

#### ***Vehicle Miles Traveled***

Senate Bill (SB) 743 directs the Governor's Office of Planning and Research (OPR) to develop new guidelines for assessing transportation-related impacts that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]). These new guidelines will replace automobile delay, as described through level of service (LOS), with more appropriate criteria and metrics based on travel demand, such as "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated" (Public Resources Code Section 21099[b][1]). The State CEQA Guidelines were amended to include guidance for measuring travel demand and to recommend that delays related to congestion no longer be considered a significant impact under CEQA (OPR 2016).

In 2023, the City of Merced amended General Plan Policy T-1.8 to require the use of Vehicle Miles Traveled (VMT) Thresholds and Guidelines when evaluating environmental impacts of development projects under CEQA. At that time, the City also adopted by reference the VMT Thresholds and Guidelines as recommended by the Merced County Association of Governments (MCAG) in November 2022. Projects that generate fewer than 1,000 daily trips and that are consistent with the General Plan may be screened out from the need for a VMT analysis. Additionally, MCAG provides screening thresholds for various land uses. For single-family detached residential projects, not requiring a GPA, projects up to 106 dwelling units are eligible to be exempt from VMT analysis. As this project includes only 104 single-family homes, would only generate 744 daily trips, and the General Plan Amendment for this project is not a change in land use, but a change to the Circulation Element that does not affect VMT, this project was deemed exempt from further VMT analysis per the above guidelines.

---

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>O. <u>Transportation/Traffic.</u></b> Would the project:				
1) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			✓	
2) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?			✓	
3) Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?				✓
4) Result in inadequate emergency access?			✓	

### 1) **Less-than-Significant Impact**

Bicycle lanes exist along portions of G Street, and Yosemite Avenue located within a half mile of the site. Sidewalks are present along Paulson Road and Dunn Road to the south and east respectively. The proposed residential subdivision would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

### 2) **Less-than-Significant Impact**

The General Plan would allow a maximum of 655 residential units on the subject site. The proposed 104 units would generate significantly less vehicle traffic compared to the maximum 655 homes that could be developed on this site. The existing street network could adequately serve this proposal. According to Trip Generation (ITE Report), the average daily trips per unit is 6.59. At the maximum General Plan density of 655 residential units, that would total 4,317 trips per day. The project at 104 units would generate approximately 686 daily trips or 16% of the average daily trips compared to the maximum allowed by the General Plan. In addition, there are several walkable locations within a ¼ mile of the subject site, which include Davenport Park, Cruickshank Middle School,



Dignity Health Hospital, Merced College, and the Yosemite & G Crossing Shopping Center.

Per CEQA Guidelines Section 15064.3 alternative modes of transportation are being assessed. The Transit Joint Powers Authority provides transit service through “The Bus.” There are several bus stops near the intersection of Yosemite Avenue and G Street, and Yosemite Avenue and Mercy Avenue that provide access to bus routes.

The Amtrak (passenger train service) is located within 2 and half miles from the subject site providing services to the greater California area and connections to travel across the country. The closest airport is Merced Regional Airport, located approximately 4.5 miles southwest of the project site.

### **3) No Impact**

City staff, including Police, Fire, and Engineering staff, reviewed the proposed subdivision layout and did not express any concerns regarding the proposed street network. Therefore, no impact would occur.

### **4) Less-than-Significant Impact**

The Fire and Police departments reviewed this proposal and are not requesting additional access points to this site. Therefore, project construction and operation would not pose a significant obstacle to emergency response vehicles. This impact on emergency access would be less than significant.

## **SETTING AND DESCRIPTION**

### **P. Water**

The City’s water system is composed of 22 groundwater production wells located throughout the City, and approximately 350 miles of main lines. Well pump operators ensure reliability and adequate system pressure at all times to satisfy customer demand. Diesel powered generators help maintain uninterrupted operations during power outages. The City of Merced water system delivers more than 24 million gallons of drinking water per day to approximately 20,733 residential, commercial, and industrial customer locations. The City is required to meet State Health pressure requirements, which call for a minimum of 20 psi at every service connection under the annual peak hour condition and maintenance of the annual average daily demand plus fire flow, whichever is stricter. The City of Merced Water Division is operated by the Public Works Department.

The City of Merced’s wells have an average depth of 414 feet and range in depth from 161 feet to 800 feet. The depth of these wells would suggest that the City of Merced is primarily drawing water from a deep aquifer associated with the Mehrten geological formation. Increasing urban demand and associated population growth, along with an increased shift by agricultural users from surface water to groundwater and prolonged drought have resulted in declining groundwater levels due to overdraft. This condition was recognized by the City of Merced and the Merced Irrigation District (MID) in 1993, at which time the two entities began a planning process to ensure a safe

---

and reliable water supply for Eastern Merced County through the year 2030. Integrated Regional Water Planning continues today through various efforts.

### *Wastewater*

Wastewater (sanitary sewer) collection and treatment in the Merced urban area is provided by the City of Merced. The wastewater collection system handles wastewater generated by residential, commercial, and industrial uses in the City.

The City Wastewater Treatment Plant (WWTP), located in the southwest part of the City about two miles south of the airport, has been periodically expanded and upgraded to meet the needs of the City's growing population and new industry. The City's wastewater treatment facility has a capacity of 11.5 million gallons per day (mgd); with an average flow of 8.5 mgd. The City has recently completed an expansion project to increase capacity to 12 mgd and upgrade to tertiary treatment with the addition of filtration and ultraviolet disinfection. Future improvements would add another 8 mgd in capacity (in increments of 4 mgd), for a total of 20 mgd. This design capacity can support a population of approximately 174,000. The collection system will also need to be expanded as development occurs.

Treated effluent is disposed of in several ways depending on the time of year. Most of the treated effluent (75% average) is discharged to Hartley Slough throughout the year. The remaining treated effluent is delivered to a land application area and the on-site City-owned wetland area south of the treatment plant.

### Storm Drainage

The *Draft City of Merced Storm Drainage Master Plan* addresses the collection and disposal of surface water runoff in the City's SUDP. The study addresses both the collection and disposal of storm water. Systems of storm drain pipes and catch basins are laid out, sized, and costed in the plan to serve present and projected urban land uses.

It is the responsibility of the developer to ensure that utilities, including storm water and drainage facilities, are installed in compliance with City regulations and other applicable regulations. Necessary arrangements with the utility companies or other agencies will be made for such installation, according to the specifications of the governing agency and the City [(Ord. 1342 § 2 (part), 1980: prior code § 25.21(f)).] The disposal system is mainly composed of MID facilities, including water distribution canals and laterals, drains, and natural channels that traverse the area.

The City of Merced has been involved in developing a Storm Water Management Plan (SWMP) to fulfill requirements of storm water discharges from Small Municipal Separate Storm Sewer System (MS4) operators in accordance with Section 402(p) of the Federal Clean Water Act (CWA). The SWMP was developed to also comply with General Permit Number CAS000004, Water Quality Order No. 2003-0005-DWQ.

### **Solid Waste**

The City of Merced is served by the State Route 59 Landfill and the State Route 59 Compost Facility, located at 6040 North Highway 59. The County of Merced is the contracting agency for landfill operations and maintenance, as the facilities are owned by the Merced County Association of Governments. The City of Merced provides services for all refuse pick-up within the City limits and franchise hauling companies collect in the unincorporated areas. In addition to these two

---

landfill sites, there is one private disposal facility, the Flintkote County Disposal Site, at State Route 59 and the Merced River. This site is restricted to concrete and earth material.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>P. <u>Utilities and Service Systems.</u></b> Would the Project:				
1) 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?			✓	
2) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			✓	
3) 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?			✓	
4) 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?			✓	
5) Comply with federal, state, and local statutes and regulations related to solid waste?			✓	

**1) Less Than Significant Impact**

The City's current water and wastewater system is capable of handling this project within the City of Merced. There are existing sewer and water lines along Paulson Road, which would be extended to go through the project site to Cardella Road. No significant environmental impacts would result from connecting to the line. This potential impact is less than significant.

**2) Less Than Significant Impact**

No new water facilities are needed for this project. The existing water system is sufficient to serve the development. Potential impacts are less than significant.

**3) Less Than Significant Impact**

Refer to item 1 above.

**4) Less Than Significant Impact**

The City of Merced uses the State Route 59 Landfill. Sufficient capacity is available to serve the future project. According to the *Merced Vision 2030 General Plan* DEIR, the landfill has capacity to serve the City through 2030. Potential impacts are less than significant.

**5) Less Than Significant Impact**

All construction on the site would be required to comply with all local, state, and federal regulations regarding solid waste, including recycling. Potential impacts are less than significant.

**Q. Tribal Cultural Resources**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Q. <u>Tribal Cultural Resources</u></b> Would the project:				
1) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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				✓
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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				✓

**Impact Analysis****1) No Impact**

As stated in the Cultural Resources Section of this Initial Study, improvements associated with the project include site excavation, grading, paving, and construction of buildings. The areas of the project subject to demolition and construction facilities are likely to have

been subject to ground disturbance in the past. No tribal resources are known to have occurred or have been identified at the project site or in the vicinity of the project site. However, as noted in the Cultural Resources Section, implementation of Mitigation Measures CUL-1 and CUL-3 would protect previously unrecorded or unknown cultural resources, including Native American artifacts and human remains, should these be encountered during project construction.

In addition, Assembly Bill (AB) 52 provides for consultation between lead agencies and Native American tribal organizations during the CEQA process. Since AB 52 was enacted in July 2015, the City has not been contacted by any California Native American tribes requesting consultation pursuant to Public Resources Code section 21080.3.1.

## R. Wildfire

### SETTING AND DESCRIPTION

Both urban and wildland fire hazard potential exist in the City of Merced and surrounding areas, creating the potential for injury, loss of life, and property damage. Urban fires primarily involve the uncontrolled burning of residential, commercial, or industrial structures due to human activities. Wildland fires affect grassland, brush or woodlands, and any structures on or near these fires. Such fires can result from either human made or natural causes.

Urban fires comprise the majority of fires in the City of Merced. The site is surrounded by urban uses. The City of Merced Fire Department has procedures in place to address the issue of wildland fires, so no additional mitigation would be necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>R. <u>Wildfire.</u></b> If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
1) Substantially impair an adopted emergency response plan or emergency evacuation plan?			✓	
2) 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?			✓	
3) 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?			✓	

4) 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?				✓
---	--	--	--	---

### ***Impact Analysis***

#### **1) Less Than Significant Impact**

The project does not include the construction of new roadways or changes to existing roads. The project would also be required to comply with all applicable requirements of the California Fire Code. As such, the project would not impact an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.

#### **2) Less Than Significant Impact**

According to the California Department of Forestry and Fire Protection, the project site is not located in any fire hazard zone. The areas surrounding the project site are mostly developed, urban land.

There is a low potential for wildland fires within these parameters. Additionally, the California Building Code and the California Fire Codes work together to regulate building construction and related items such as the care of vacant lots and the storage of flammable liquids.

To provide effective fire prevention activities for low hazard occupancies, the Fire Department conducts seasonal hazard removal programs (primarily weed abatement). The City of Merced employs a weed abatement program, which requires property owners to eliminate flammable vegetation and rubbish from their properties. Each property within the City is surveyed each spring and notices are sent to the property owners whose properties have been identified to pose a fire risk. Since inception of this program in 1992, grass or brush related fires within the City have been greatly reduced. A “bulky item” drop off station has been opened near Highway 59 and Yosemite Avenue. Further, staging areas, building areas, and/or areas slated for development using spark-producing equipment are cleared of dried vegetation or other materials that could serve as fuel for combustion; impacts are considered less than significant.

#### **3) Less Than Significant Impact**

The project would be required to repair/replace any missing or damaged infrastructure along their property frontage. However, the on-going maintenance of roadways would fall to the City. All other infrastructure or utilities exist in the area. No additional infrastructure or on-going maintenance would be required that would cause an impact to the environment. This impact is less than significant.

#### **4) No Impact**

The project site and surrounding area is relatively flat with no risk of downslope or downstream flooding or landslides. Therefore, there is no impact.

## **S. Greenhouse Gas Emissions**

### **SETTING AND DESCRIPTION**

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. A portion of the solar radiation that enters the atmosphere is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space. Infrared radiation is absorbed by GHGs; as a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth.

GHGs are present in the atmosphere naturally, are released by natural sources and anthropogenic sources, and are formed from secondary reactions taking place in the atmosphere. The following GHGs are widely accepted as the principal contributors to human-induced global climate change and are relevant to the project: carbon dioxide (CO<sub>2</sub>), methane, and nitrous oxide.

Emissions of CO<sub>2</sub> are byproducts of fossil fuel combustion. Methane is the main component of natural gas and is associated with agricultural practices and landfills. Nitrous oxide is a colorless GHG that results from industrial processes, vehicle emissions, and agricultural practices.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to CO<sub>2</sub>. The GWP of a GHG is based on several factors, including the relative effectiveness of a gas in absorbing infrared radiation and the length of time the gas remains in the atmosphere (i.e., its atmospheric lifetime). The reference gas for GWP is CO<sub>2</sub>; therefore, CO<sub>2</sub> has a GWP of 1. The other main GHGs that have been attributed to human activity include methane, which has a GWP of 28, and nitrous oxide, which has a GWP of 265 (IPCC 2013). For example, 1 ton of methane has the same contribution to the greenhouse effect as approximately 28 tons of CO<sub>2</sub>. GHGs with lower emissions rates than CO<sub>2</sub> may still contribute to climate change, because they are more effective than CO<sub>2</sub> at absorbing outgoing infrared radiation (i.e., they have high GWPs). The concept of CO<sub>2</sub>-equivalents (CO<sub>2</sub>e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation.

---

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>S. <u>Greenhouse Gas Emissions.</u></b> Would the project:				
1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

### 1) **Less -than-Significant Impact**

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is responsible for protecting public health and welfare through the administration of federal and state air quality laws and policies. In December 2009, SJVAPCD adopted the *Final Staff Report Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act* (SJVAPCD 2009). SJVAPCD also developed guidance for land-use agencies to address GHG emission impacts for new development projects. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would have a less-than-significant individual and cumulative impact related to GHG emissions. Projects implementing best performance standards and reducing project-specific GHG emissions by at least 29 percent compared to the business-as-usual condition would have a less-than-significant individual and cumulative impact on global climate change under this guidance. However, models used to estimate GHG emissions now include some of the statewide measures that previously would have been used to evaluate this 29 percent reduction performance standard, so this particular method of comparison is out of date.

To establish the context in which to consider the project's GHG emissions, this analysis used guidance from the adjacent Sacramento Metropolitan Air Quality Management District (SMAQMD) to determine significance. In 2014, SMAQMD adopted a significance threshold for GHG emissions consistent with the goals of Assembly Bill (AB) 32: 1,100 metric tons (MT) CO<sub>2</sub>e per year for construction-related and operational emissions (SMAQMD 2014). This significance threshold was developed to assess the consistency of a project's emissions with the statewide framework for reducing GHG emissions.

The impacts associated with GHG emissions generated by the project are related to the emissions from short-term construction and operations. Off-road equipment, materials transport, and worker commutes during construction of the project would generate GHG emissions. Emissions generated by the project during operations are related to indirect GHG emissions associated with residential uses.



GHG emissions associated with construction of the project are short-term and will cease following completion of construction activity. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be less than significant with mitigation.

## 2) **Less-than-Significant Impact**

In 2006, California enacted AB 32, the California Global Warming Solutions Act of 2006 (California Health and Safety Code Section 38500 et seq.). AB 32 establishes regulatory, reporting, and market mechanisms to achieve reductions in GHG emissions and establishes a cap on statewide GHG emissions. It requires that statewide GHG emissions be reduced to 1990 levels by 2020.

In 2008 and 2014, the California Air Resources Board (ARB) approved the Climate Change Scoping Plan (Scoping Plan) and the first update to the Climate Change Scoping Plan: Building on the Framework, respectively (ARB 2008; ARB 2014). In 2016, the state legislature passed Senate Bill SB 32, which established a 2030 GHG emissions reduction target of 40 percent below 1990 levels. In response to SB 32 and the companion legislation of AB 197, ARB approved the Final Proposed 2017 Scoping Plan Update: The Strategy for Achieving California's 2030 GHG Target in November 2017 (ARB 2017). The 2017 Scoping Plan draws from the previous plans to present strategies to reaching California's 2030 GHG reduction target. The project would comply with any mandate or standards set forth by an adopted Scoping Plan Update effecting construction activities and operations.

In 2012, the City of Merced adopted the *Merced Climate Action Plan* to address the reduction of major sources of GHG emissions. The climate action plan established an emissions target of 1990 levels by 2020, commensurate with the State of California's target (City of Merced 2012). To meet this goal, the City adopted values, goals, and strategies to reduce emissions. Goals of the plan include:

- enhanced mobility of all transportation modes;
- sustainable community design;
- water conservation and technology;
- protection of air resources;
- waste reduction;
- increased use of renewable energy sources;
- building energy conservation; and,
- public outreach and involvement.

The project would be consistent with the goals of the *Merced Climate Action Plan*.

As mentioned above, the project would not exceed emissions thresholds adopted by SMAQMD and would be consistent with the applicable requirements of the *Merced Climate Action Plan*. Therefore, the project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. This impact would be less than significant. This impact would be less than significant.

---

## T. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>T. <u>Mandatory Findings of Significance.</u></b> Would the Project:				
1) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			✓	
2) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects?)			✓	
3) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			✓	

### 1) Less-Than-Significant Impact

As previously discussed in this document, the Project does not have the potential to adversely affect biological resources or cultural resources, because such resources are lacking on the project site, and any potential impacts would be avoided with other applicable codes identified in this report. Also, the Project would not significantly change the existing urban setting of the project area. Thus, this impact would be less than significant.

### 2) Less-Than-Significant Impact

The Program Environmental Impact Report conducted for the *Merced Vision 2030 General Plan, the General Plan Program EIR* (SCH# 2008071069), has recognized that future development and build-out of the SUDP/SOI will result in cumulative and unavoidable impacts in the areas of Air Quality and Loss of Agricultural Soils. In conjunction with this

conclusion, the City has adopted a Statement of Overriding Considerations for these impacts (Resolution #2011-63) which is herein incorporated by reference.

The certified General Plan EIR addressed and analyzed cumulative impacts resulting from changing agricultural use to urban uses. No new or unaddressed cumulative impacts will result from the project that have not previously been considered by the certified General Plan EIR or by the Statement of Overriding Considerations, or mitigated by this Expanded Initial Study. This Initial Study does not disclose any new and/or feasible mitigation measures which would lessen the unavoidable and significant cumulative impacts.

The analysis of impacts associated with the development would contribute to the cumulative air quality and agricultural impacts identified in the General Plan EIR. In the case of air quality, emissions from the proposed project would be less than significant. The nature and extent of these impacts, however, falls within the parameters of impacts previously analyzed in the General Plan EIR. No individual or cumulative impacts will be created by the Project that have not previously been considered at the program level by the General Plan EIR or mitigated by this Initial Study.

### **3) Less-Than-Significant Impact**

Development anticipated by the *Merced Vision 2030 General Plan* will have significant adverse effects on human beings. These include the incremental degradation of air quality in the San Joaquin Basin, the loss of unique farmland, the incremental increase in traffic, and the increased demand on natural resources, public services, and facilities. However, consistent with the provisions of CEQA previously identified, the analysis of the proposed project is limited to those impacts which are peculiar to the project site or which were not previously identified as significant effects in the prior EIR. The previously-certified General Plan EIR and the Statement of Overriding Considerations addressed those cumulative impacts; hence, there is no requirement to address them again as part of this project.

This previous EIR concluded that these significant adverse impacts are accounted for in the mitigation measures incorporated into the General Plan EIR. In addition, a Statement of Overriding Considerations was adopted by City Council Resolution #2011-63 that indicates that the significant impacts associated with development are offset by the benefits that will be realized in providing necessary jobs for residents of the City. The analysis and mitigation of impacts have been detailed in the Environmental Impact Report prepared for the *Merced Vision 2030 General Plan*, which is incorporated into this document by reference.

While this issue was addressed and resolved with the General Plan EIR in an abundance of caution, in order to fulfill CEQA's mandate to fully disclose potential environmental consequences of projects, this analysis is considered herein. However, as a full disclosure document, this issue is repeated in abbreviated form for purposes of disclosure, even though it was resolved as a part of the General Plan.

Potential impacts associated with the Project's development have been described in this Initial Study. All impacts were determined to be less than significant.

---

#### **4. ENVIRONMENTAL DETERMINATION**

On the basis of this initial environmental evaluation:

I find that the project could have a significant effect on the environment, and that  
  X   a NEGATIVE DECLARATION HAS BEEN PREPARED for public review.

April 17, 2025

  
\_\_\_\_\_  
Francisco Mendoza-Gonzalez, Senior Planner

  
\_\_\_\_\_  
Diana Lowrance, Deputy Director of Development Services  
Environmental Coordinator  
City of Merced

#### **5. PREPARERS OF THE INITIAL STUDY**

##### **LEAD AGENCY**

City of Merced  
Planning & Permitting Division  
678 West 18<sup>th</sup> Street  
Merced, CA 95340  
(209) 385-6929  
Francisco Mendoza-Gonzalez, Senior Planner

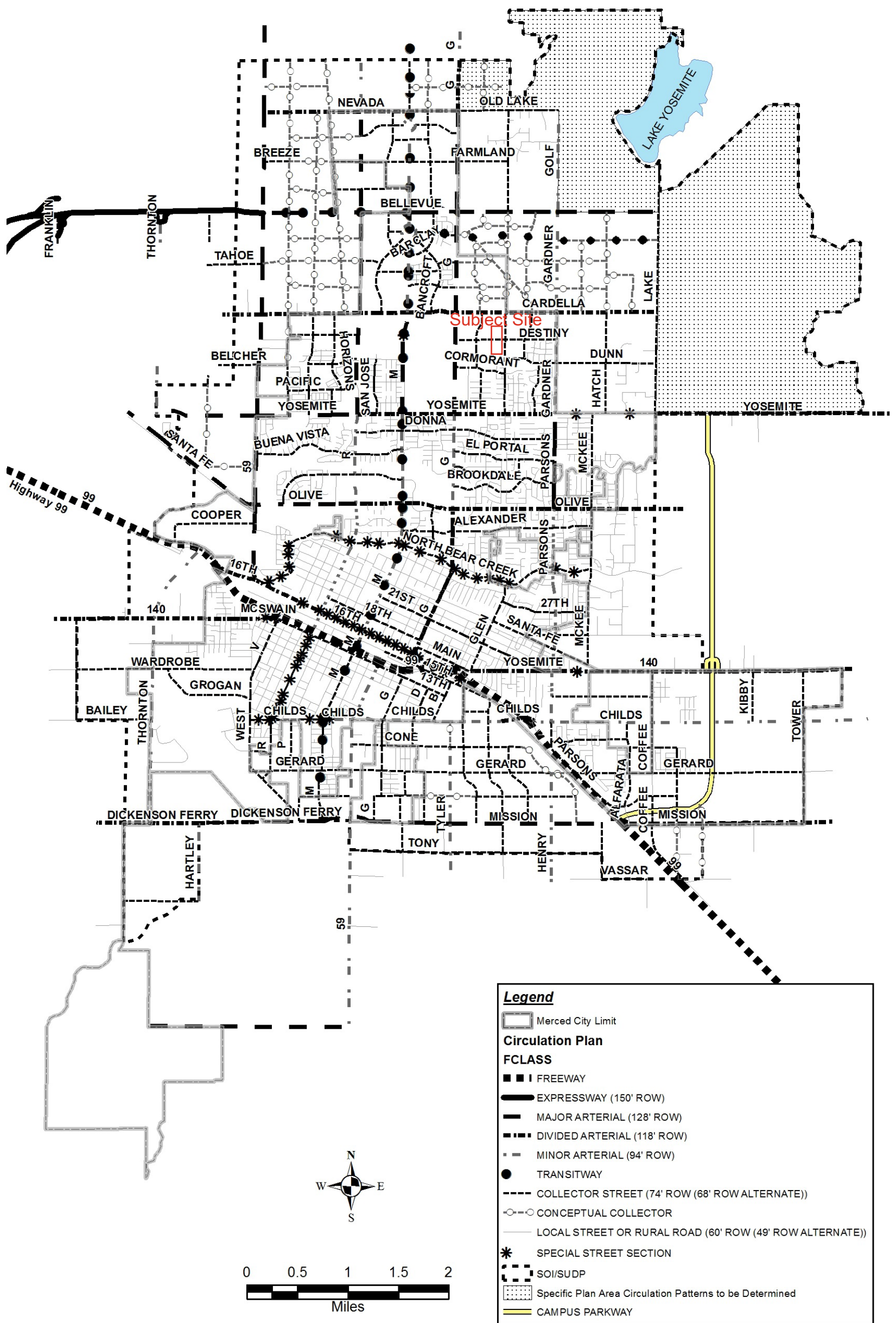
##### **ATTACHMENTS:**

- A) Location Map
  - B) General Plan Circulation Map (Figure 4.1)
  - C) Circulation Element Figure 4.1 Close-Up to Project Site
  - D) Galloway Enterprises Field Survey
  - E) Tentative Subdivision Map #1329 (Paulson Ranch)
-



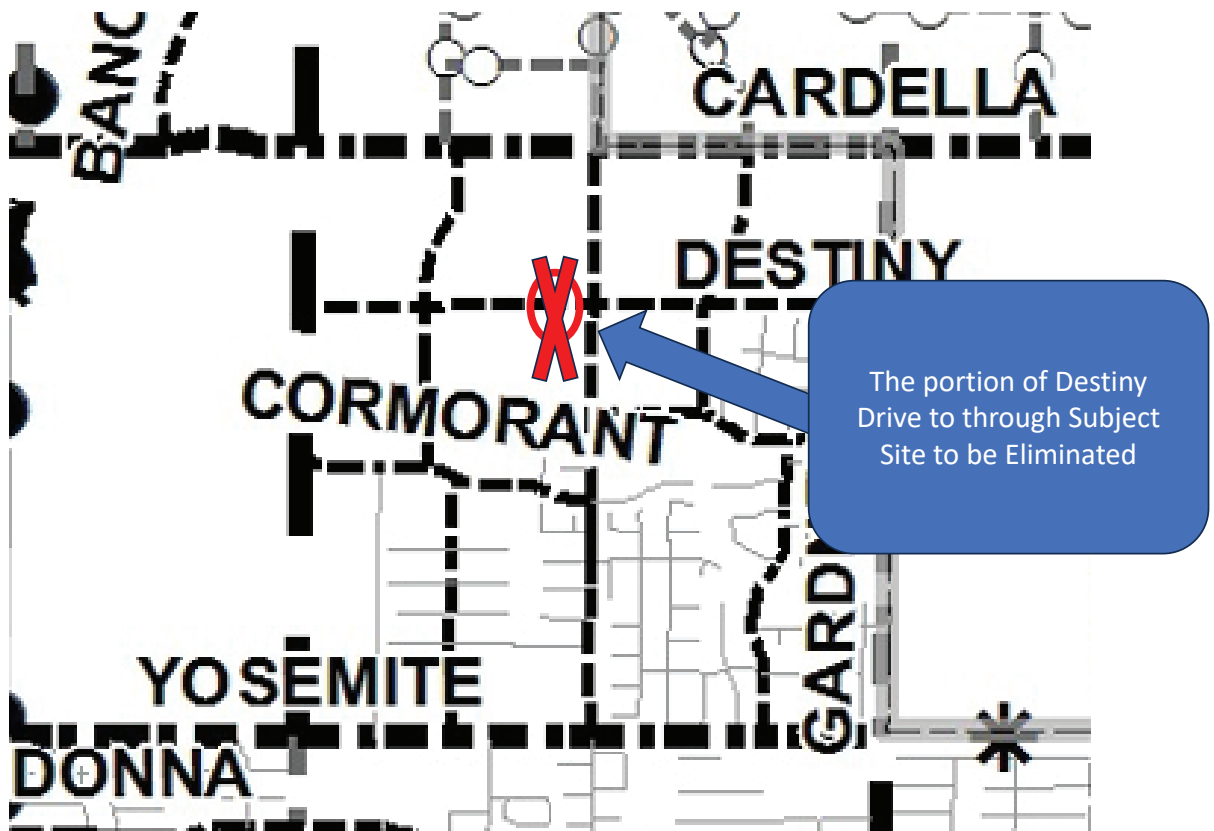




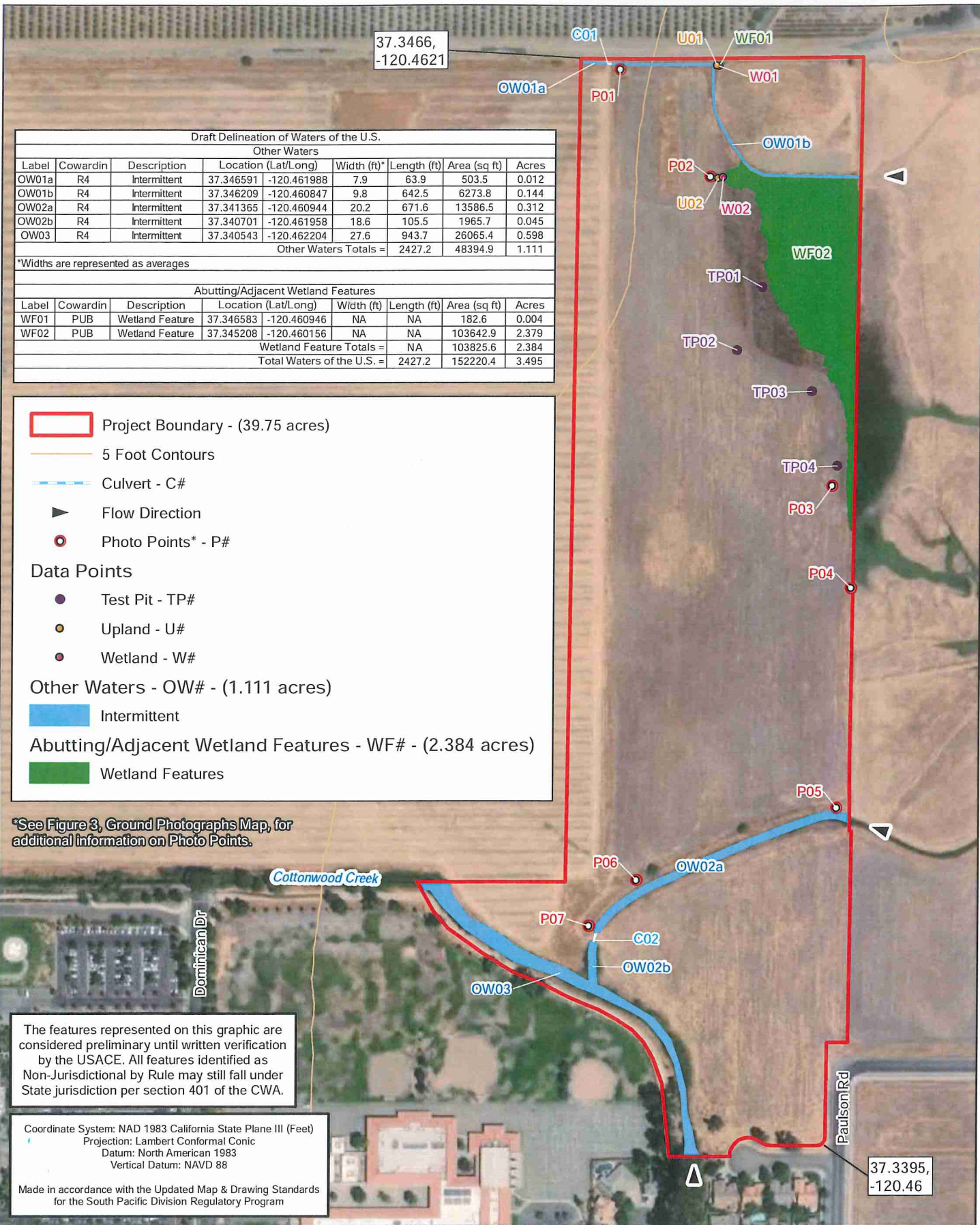


CITY OF MERCED CIRCULATION PLAN

Figure 4.1







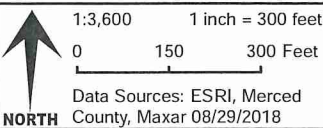
Draft Delineation of Waters of the U.S.							
Other Waters							
Label	Cowardin	Description	Location (Lat/Long)	Width (ft)*	Length (ft)	Area (sq ft)	Acres
OW01a	R4	Intermittent	37.346591 -120.461988	7.9	63.9	503.5	0.012
OW01b	R4	Intermittent	37.346209 -120.460847	9.8	642.5	6273.8	0.144
OW02a	R4	Intermittent	37.341365 -120.460944	20.2	671.6	13586.5	0.312
OW02b	R4	Intermittent	37.340701 -120.461958	18.6	105.5	1965.7	0.045
OW03	R4	Intermittent	37.340543 -120.462204	27.6	943.7	26065.4	0.598
Other Waters Totals =				2427.2	48394.9	1.111	
*Widths are represented as averages							
Abutting/Adjacent Wetland Features							
Label	Cowardin	Description	Location (Lat/Long)	Width (ft)	Length (ft)	Area (sq ft)	Acres
WF01	PUB	Wetland Feature	37.346583 -120.460946	NA	NA	182.6	0.004
WF02	PUB	Wetland Feature	37.345208 -120.460156	NA	NA	103825.6	2.379
Wetland Feature Totals =				NA	NA	103825.6	2.384
Total Waters of the U.S. =				2427.2	152220.4	3.495	

- Project Boundary - (39.75 acres)
- 5 Foot Contours
- Culvert - C#
- Flow Direction
- Photo Points\* - P#
- Data Points**
  - Test Pit - TP#
  - Upland - U#
  - Wetland - W#
- Other Waters - OW# - (1.111 acres)**
  - Intermittent
- Abutting/Adjacent Wetland Features - WF# - (2.384 acres)**
  - Wetland Features

\*See Figure 3, Ground Photographs Map, for additional information on Photo Points.

The features represented on this graphic are considered preliminary until written verification by the USACE. All features identified as Non-Jurisdictional by Rule may still fall under State jurisdiction per section 401 of the CWA.

Coordinate System: NAD 1983 California State Plane III (Feet)  
Projection: Lambert Conformal Conic  
Datum: North American 1983  
Vertical Datum: NAVD 88  
Made in accordance with the Updated Map & Drawing Standards for the South Pacific Division Regulatory Program



Wathan Property - APN 231-010-002  
Draft Delineation of Waters of the U.S.  
Figure 4

Delineation by: E. Gregg  
Map by: B. Reeves  
gallaway ENTERPRISES  
GE: #21-012 Map Date: 02/25/2021



EXISTING	PROPOSED
WATER VALVE	WATER VALVE
FIRE HYDRANT	FIRE HYDRANT
STANDARD MANHOLE	STANDARD MANHOLE
DRAIN INLET	DRAIN INLET
WATER LINE	WATER LINE
SEWERAGE SINK	SEWERAGE SINK
STORM DRAIN	STORM DRAIN
SUN STREET LIGHT	SUN STREET LIGHT
6.00' 6.00' 6.00'	6.00' 6.00' 6.00'
TOP OF CURB ELEVATION	TOP OF CURB ELEVATION
GROUND CONTOURS	GROUND CONTOURS
CURBS, GUTTER AND SIDEWALK	CURBS, GUTTER AND SIDEWALK
PHYSICAL RETAINING WALL	PHYSICAL RETAINING WALL

OWNER	SUBDIVIDER
HOSTETLER RANCHES, LLC 923 EAST PACHECO BOULEVARD, SUITE C LOS BANOS, CA 93635	STONEFIELD HOME, INC. 923 EAST PACHECO BOULEVARD, SUITE C LOS BANOS, CA 93635

1. EXISTING GENERAL PLANK: RESIDENTIAL; HIGH TO MEDIUM DENSITY RESIDENTIAL.
2. EXISTING GENERAL PLANK: RESIDENTIAL; LOW DENSITY RESIDENTIAL; HIGH TO MEDIUM DENSITY RESIDENTIAL.
3. EXISTING ZONING: R-3-1-2 (MEDIUM DENSITY RESIDENTIAL), R-1-4 (LOW DENSITY RESIDENTIAL).
4. EROSION CONTROL PER CITY OF MERCED ORDINANCES AND STANDARDS.
5. FRONT YARD DEPTHS AND BUILDING SETBACK LINES PER CITY OF MERCED ORDINANCES AND STANDARDS.

6. WATER SUPPLY: BY CITY OF MERCED.
7. SEWAGE DISPOSAL: BY CITY OF MERCED.
8. STORM DRAINAGE: BY CITY OF MERCED.
9. TREE TYPE AND LOCATION SHALL BE DETERMINED BY CITY OF MERCED.
10. ALL IN-TRACT IMPROVEMENTS AND PUBLIC FACILITIES WILL BE INSTALLED OR CONSTRUCTED AT THE TIME OF DEVELOPMENT.

**GENERAL NOTES**

1. STREET IMPROVEMENTS SHALL BE INSTALLED PER CITY OF MERCED STANDARD SPECIFICATIONS.
2. NO AREAS SUBJECT TO INUNDATION BY THE 1% CHANCE ANNUAL FLOOD EVENT
3. TOTAL AREA OF THIS SUBDIVISION IS 39.1 ACRES CONTAINING 104 RESIDENTIAL LOTS.
4. THE SUBDIVIDER HEREBY RESERVES THE RIGHT TO FILE MULTIPLE SUBDIVISION MAPS AS SET FORTH BY THE SUBDIVISION MAP ACT, ARTICLE 4, SECTION 66040.1.
5. A GENERAL PLAN AMENDMENT APPLICATION WILL BE FILED

MERCED CITY SCHOOL DISTRICT  
APN: 231-010-005  
LOW DENSITY RESIDENTIAL (R-1-6)

COTTONWOOD UNIT 1 VOLUME 47 OF FINAL MAPS  
AT PAGES 4-6 MERCED COUNTY RECORDS

MERCED CITY SCHOOL DISTRICT  
APN: 231-040-011  
LOW DENSITY RESIDENTIAL (R-1-5)

[illegible]

Figure 1: Schematic diagram of the experimental setup for the study of the effect of the size of the hole on the flow characteristics of the jet. The diagram shows a vertical jet of water falling from a nozzle into a container. The jet is divided into three regions: a central core of water, a surrounding layer of air, and a layer of water. The diameter of the jet is labeled as 10 mm. The distance from the nozzle to the container is labeled as 100 mm. The container has a diameter of 100 mm and a height of 100 mm. The jet is shown falling into the container, creating a splash. The diagram is labeled with dimensions in mm and cm.

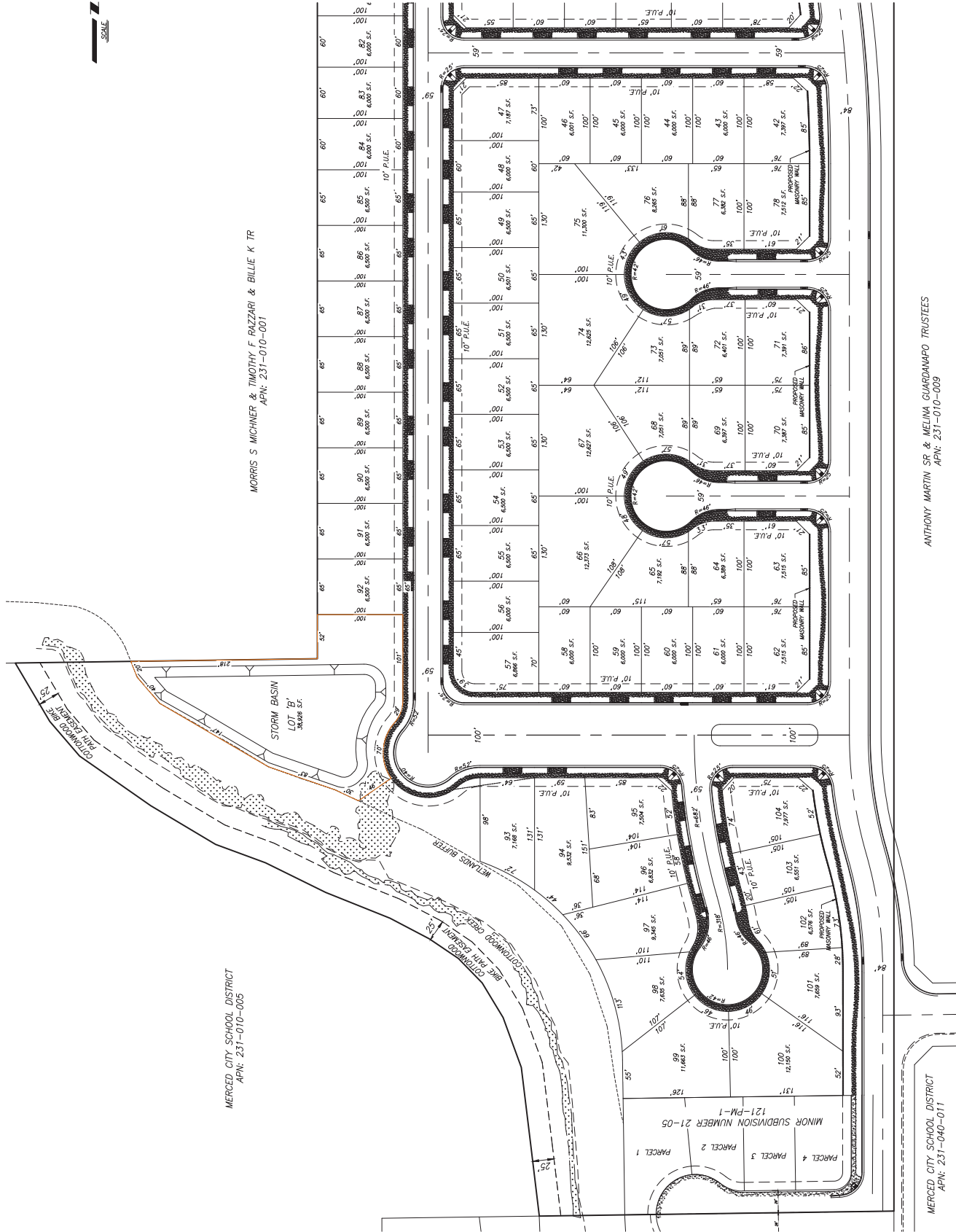
SHEET NO.	DESCRIPTION
1	CONCEPT STUDY
2	PRELIMINARY PLAN (ROUTING)
3	LOT DIMENSION PLAN (ROUTING)
4	CONCEPTUAL GRADING PLAN (ROUTING)
5	CONCEPTUAL BRIDGING PLAN (ROUTING)
6	CONCEPTUAL COMPOSITE UTILITY PLAN (ROUTING)
7	CONCEPTUAL COMPOSITE UTILITY PLAN (ROUTING)

Plan view of the proposed 59' Local Street. The street width is 59'. The layout includes a 10' F&E (Frontage and Easement) area on the left, a 10' F&E area on the right, and a 10' F&E area in the center. The street is divided into two 17' lanes by a 10' centerline. The total width of the two lanes is 34'. The total width of the street, including the 10' F&E areas, is 54'. The street is labeled '59' LOCAL STREET'.

**COVER SHEET**

JOB NO. 125985  
DATE 1/28/2025  
DR BY LG  
CK BY MR  
SCALE AS SHOWN

SHEET  
NUMBER  
1  
OF 7



NO.	DESCRIPTIONS	DATE	APPROVED



**BENCHMARK ENGINEERING**  
CIVIL ENGINEERING, PLANNING, AND LAND SURVEYING  
4885 SPRINGS WAY, SUITE A, ROBERTS, CALIFORNIA, 92658 (949) 548-8888

**LOT DIMENSION PLAN (NORTH)**  
VERIFIED TRIANGULAR SUBSTANTIAL MAP FOR  
**PAULSON RANCH**  
MERCED, CALIFORNIA

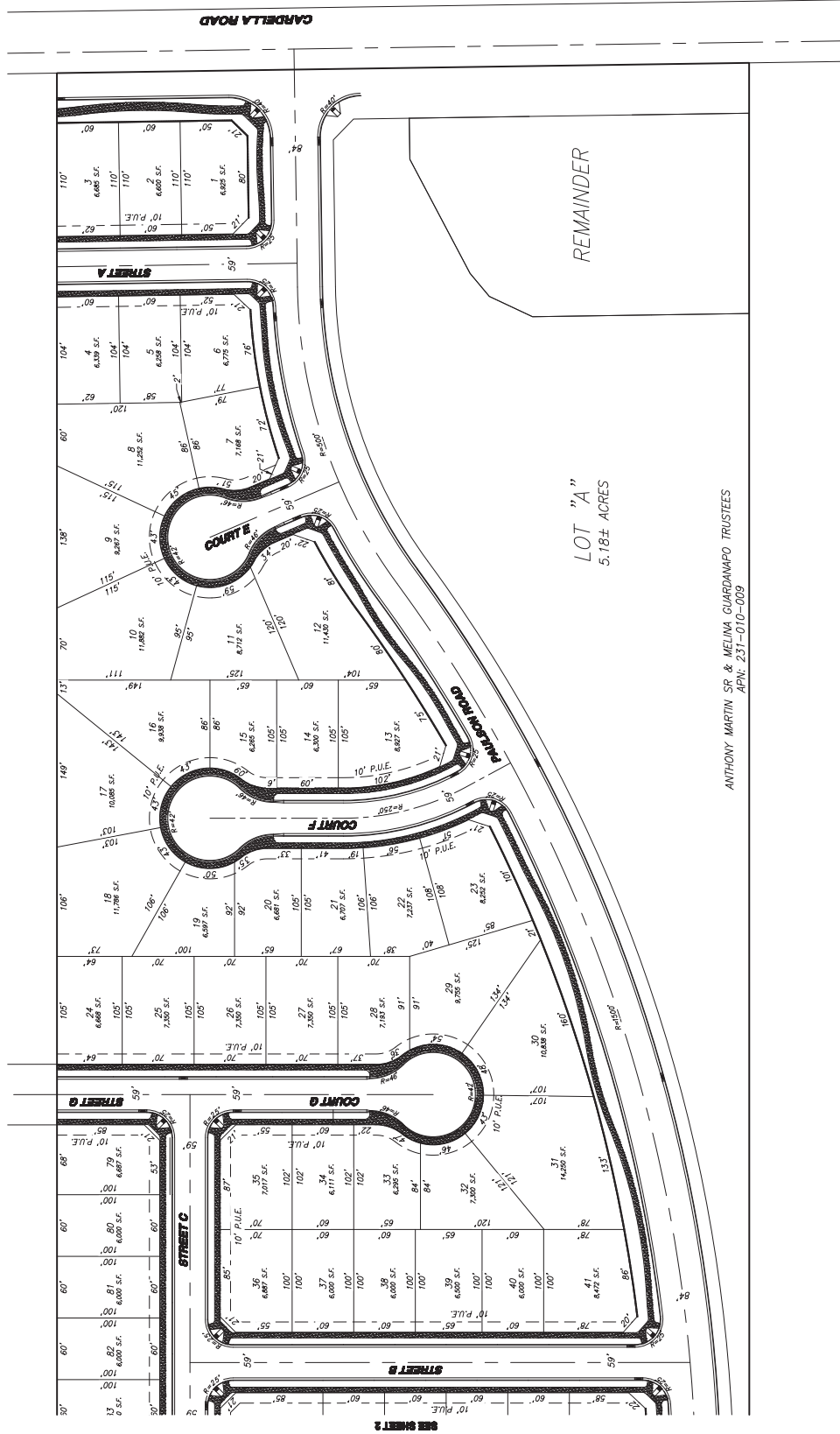
JOB NO. 125985	DATE 1/28/2023	DRAWN LC	CHECK MR	SCALE AS SHOWN
SHEET NUMBER <b>3</b>				

OF 7 SHEETS

SCALE 1" = 50'

MORRIS S. MICHAEL & TIMOTHY F. RAZZARI & BILLIE K. TR  
APN: 231-010-001

BANDONI SUNSET LP  
APN: 060-030-046



ANTHONY MARTIN SR & MELINA GUARDANARO TRUSTEES  
APN: 231-010-009



SHEET  
NUMBER

DATE: 1/28/2023  
DRAWN BY: JC  
CHECKED BY: MR  
SCALE: AS SHOWN

CONCEPTUAL GRADING PLAN (NORTH)  
PAULSON RANCH  
VERBENA TRIBUTARY RECONSTRUCTION MAP FOUR  
MERCED, CALIFORNIA

**B**  
BENCHMARK ENGINEERING  
CIVIL ENGINEERING, PLANNING, AND LAND SURVEYING  
4885 SPRING WAY, SUITE A, ROBERTO, CALIFORNIA, 95368 (916) 548-8888

NO.	DESCRIPTIONS	DATE	APPROVED

PREPARED UNDER THE DIRECTION OF:

MORRIS S. MICHNER & TIMOTHY F. RAZZARI & BILLIE K. TR  
APN: 231-010-001

ANTHONY MARTIN SR. & MELINA GUARDANAPAO TRUSTEES  
APN: 231-010-009

