CITY OF MERCED
PLANNING & PERMITTING DIVISION

TYPE OF PROPOSAL: **General Plan Amendment #14-04, Revision #2 to the Fahrens Creek Specific Plan, and Site Utilization Plan Revision #4 to Planned Development #46**

INITIAL STUDY: #14-26 - REVISED

DATE RECEIVED: December 19, 2014 (date application determined to be complete)

LOCATION: Southeast corner of Pacific Drive and Horizons Drive, also fronting Stinson Drive and Compass Pointe Avenue
(3640 Compass Pointe Avenue)

ASSESSOR'S PARCEL NUMBERS: 206-070-006

(SEE ATTACHED PUBLIC HEARING NOTICE AND MAP AT ATTACHMENTS J AND K.)

Please forward any written comments by March 4, 2015 to:

Julie Nelson, Associate Planner
City of Merced Planning & Permitting Division
678 West 18th Street
Merced, CA 95340

Applicant Contact Information:

Barbara Bruno
1819 Walnut Road
Turlock, CA 95380

Project Description

The applicant is proposing to construct a 136-unit apartment complex on a 10.42-acre parcel located at the southeast corner of Stinson Drive and Horizons Avenue (north of Yosemite Avenue, west of Compass Pointe Avenue) (Attachment A). This parcel has a variety of land use designations according to the City's General Plan Land Use Diagram (Attachment B). Approximately 4-acres of the parcel have a General Plan designation of a Village Residential (VR), approximately 6.2-acres has a Low Density Residential (LD) designation, and approximately 0.22-acres has an Open Space/Parks designation. The Fahrens Creek Specific Plan and Site Utilization Plan for Planned Development #46 identify approximately 3.66 acres of the site as Village Residential and the remaining area as Low-Density Residential. The proposed apartment complex would be marketed to students attending UC Merced, but could also be rented to the general public.

In order to allow a multi-family development on the entire 10.42 acre parcel, the following changes are proposed:

Plan	Area	Existing Designation	Proposed Designation
General Plan Designation	6.2 acres (+/-)	Low Density (LD)	Village Residential (VR)
General Plan Designation	0.22 acres (+/-)	Open Space/Parks (OS)	Village Residential (VR)
Fahrens Creek Specific Plan	6.76 acres (+/-)	Low Density (LD)	Village Residential (VR)
Site Utilization Plan for Planned Development (PD) #46	6.76 acres (+/-)	Low Density (LD)	Village Residential (VR)

If the General Plan Amendment and Site Utilization Plan Revision are approved, the developer would apply for a Conditional Use Permit to approve the construction of the 136 apartment complex including the required parking, an office/lounge building, and a swimming pool (Attachment D). The apartment complex would have a total of 17 buildings with 8 units each (4 units downstairs and 4 units upstairs). Covered parking would be provided for all units. Approximately 3 acres of the site has been designated as a "floodway" on the Flood Insurance Rate Map (FIRM) making it undevelopable for structures. Therefore, the project area only encompasses approximately 7.42 acres. A small portion of the parking area would encroach into the floodway which may be allowable if proper documentation is provided and approved.

Surrounding Uses
(Refer to Attachment A)

Surrounding Land	Existing Use of Land	Zoning Designation	City General Plan Land Use Designation
North	Single-Family Residential (across Pacific Drive)	P-D #46	Low Density Residential (LD)
South	Dog Park (across Fahrens Creek)	P-D #46	Open Space/Recreation (OS)
East	Vacant	P-D #46	Low Density Residential (LD)
West	Future Apartment Complex (across Horizons Avenue)/ Vacant and Single-Family Residential (across Compass Pointe Avenue)	P-D #46	Village Residential (VR)/Neighborhood Commercial Office (CN)

I. 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.

II. CHECKLIST FINDINGS

A. An on-site inspection was made by this reviewer on November 24, 2014.

B. The checklist was prepared on December 9, 2014.

C. The *Merced Vision 2030 General Plan* and its associated 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, the Initial Study #14-26 plans to incorporate goals, policies, and implementing 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.

Project-level environmental impacts 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.

III. ENVIRONMENTAL IMPACTS:

Will the proposed project result in significant impacts in any of the listed categories? Significant impacts are those which 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 on a vacant lot at the southeast corner of Horizons Avenue and Stinson Drive (Attachment A). There are single-family dwellings to the north and west of the site. A City-owned Dog Park is located to the south, across Fahrens Creek. Vacant land designated for Low Density Residential is located to the east. A 96-unit apartment complex is approved for the property to the west across Horizons Avenue. Another vacant site to the west, across Compass Pointe Avenue, is designated for a Neighborhood Commercial development.

The site is not located within a designated scenic corridor and there are no scenic vistas visible from the site. The topography of the site is level and there are no outstanding features noted.

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

1) **No Impact**

Much of the land around the site is completely developed or has been approved for development. Because of the flat terrain, views from one side of the property to the other are unobstructed. No designated scenic vistas exist on the project site or in the project area. Therefore, no impacts in this regard would occur either with the General Plan Amendment and Site Utilization Plan (SUP) Revision or with the subsequent Conditional Use Permit and construction of the future apartment complex.

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 General Plan Amendment, Specific Plan Revision, and SUP Revision would not cause any change to the visual character of the site. The subsequent apartment development would create a change on the site simply by developing a vacant lot. Development of the lot would not degrade the site, but on the contrary, would enhance the site. Currently, the site is just a vacant dirt lot with no trees or other vegetation. The construction of the project will improve the lot and reduce blight and trash on the site. The improvements would create a less than significant impact.

4) **Less Than Significant Impact**

The General Plan Amendment and SUP Revision would not create any additional source of light or glare that would affect views in the area. The future construction of the apartment complex would add artificial lighting to the area. The parking areas and buildings would provide lighting, but would not adversely affect any views in the area. Although there are vacant lots adjacent to the site, the site is also adjacent to developed parcels of land that provide artificial light to the area. The addition of lighting associated with the future apartment complex would not adversely affect the surrounding area. All lighting would be required to meet the California Energy Code and would be required to be shielded so it doesn't spillover onto adjacent properties as required by the Energy Code. The addition of lighting would be a less than significant impact.

B. Agriculture Resources

SETTING AND DESCRIPTION

Merced County is among the largest agriculture producing Counties in California (ranked fifth), with a gross income of more than $2.4 billion in 2006. The County's leading agriculture commodities include milk, chickens, almonds, cattle and calves, tomatoes, and sweet potatoes.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
B. Agriculture Resources. 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?				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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) **No Impact**
The project site is located within the City Limits of Merced and was annexed in 2001. 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 2012 Merced County Important Farmlands Map, the Project site is classified as "Grazing Land." However, it has not been used as such since prior to being annexed in 2001. It is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), therefore, this impact is less than significant.

2) **No Impact**

There are no Williamson Act contract lands in this area.

3) **No Impact**

There is no other land in the vicinity currently being used for Farmland.

4) **No Impact**

The area is urbanized with no agricultural uses nearby. Therefore, there are no impacts.

C. Air Quality

SETTING AND DESCRIPTION

The San Joaquin Valley Air Pollution Control District (SJVAPCD) will review the project to assess the impact to air quality and to establish acceptable mitigation measures. Hence, the City recognizes that additional mitigation measures may be applied to subsequent phases of the development of this area. While the action of the SJVAPCD is independent of City reviews and actions, their process allows the City to review proposed mitigation measures that could affect project design and operation. Any proposed changes are subject to approval by the City.

The project is located in the San Joaquin Valley Air Basin (SJVAB), which occupies the southern half of the Central Valley and is approximately 250 miles in length and, on average, 35 miles in width. The Coast Range, which has an average elevation of 3,000 feet, serves as the western border of the SJVAB. The San Emigdio Mountains, part of the Coast Range, and the Tehachapi Mountains, part of the Sierra Nevada, are both located to the south of the SJVAB. The Sierra

Nevada extends in a northwesterly direction and forms the eastern boundary of the SJVAB. The SJVAB is basically flat with a downward gradient to the northwest.

The climate of the SJVAB is strongly influenced by the presence of these mountain ranges. The mountain ranges to the west and south induce winter storms from the Pacific 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 the mountain where precipitation is noticeably less because moisture in the air is removed in the form of clouds and precipitation on the windward side. In addition, the mountain ranges block the free circulation of air to the east, resulting in the entrapment of stable air in the valley for extended periods during the cooler months.

Winter in the SJVAB is characterized as mild and fairly humid, and the summer is hot, dry, and cloudless. During the summer, a Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind.

Existing Ambient Air Quality

The California Air Resources Board (CARB) and the United States Environmental Protection Agency (EPA) currently focus on the following air pollutants as indicators of ambient air quality: Ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM), and lead. Because these are the most prevalent air pollutants known to be deleterious to human health and extensive health-effects criteria documents are available, they are commonly referred to as "criteria air pollutants."

The EPA has established primary and secondary National Ambient Air Quality Standard (NAAQS) for the following criteria air pollutants: O_3, CO, NO_2, SO_2, PM_{10}, fine particulate matter ($PM_{2.5}$), and lead. The primary standards protect the public health and the secondary standards protect the public welfare. In addition to the NAAQS, CARB has established California Ambient Air Quality Standard (CAAQS) for the following criteria air pollutants: sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulate matter. In most cases, the CAAQS are more stringent that the NAAQS.

Criteria air pollutant concentrations are measured at several monitoring stations in the SJVAB. From 1991 to present, there have been two monitoring stations within the City of Merced: S. Coffee Avenue and 2334 M Street. The table below summarizes the air quality data from these locations for the most recent years available.

Ambient Air Quality in City of Merced
(Number of Days Exceeding State and Federal Standards)

Year	Merced - S. Coffee Avenue					Merced- 2334 M Street				
	State Ozone	Federal Ozone	State PM_{10} [1]	Federal PM_{10} [1]	Federal $PM_{2.5}$ [2]	State Ozone	Federal Ozone	State PM_{10} [1]	Federal PM_{10} [1]	Federal $PM_{2.5}$ [2]
2009	0	0	*	*	*	*	*	32.5	0	25.1
2008	14	3	*	*	*	*	*	87.2	0	*
2007	5	0	*	*	*	*	*	36.5	0	3.3
2006	4	0	*	*	*	*	*	47.4	0	0
2005	6	0	*	*	*	*	*	29	0	0
2004	14	0	*	*	*	*	*	12.3	0	0
2003	54	0	*	*	*	*	*	44.4	*	*
2001	26	0	*	*	*	*	*	*	0	*
2000	32	0	*	*	*	*	*	69.6	0	*
1999	42	2	*	*	*	*	*	*	*	*
1998	37	3	*	*	*	*	*	*	*	*
1997	1	0	*	*	*	*	*	*	*	*
1996	44	1	*	*	*	*	*	*	*	*
1995	38	3	*	*	*	*	*	96.3	0	*
1994	31	0	*	*	*	*	*	60.8	0	*
1993	22	1	*	*	*	*	*	108.8	0	*
1992	39	0	*	*	*	*	*	138.8	0	*
1991	13	2	*	*	*	*	*	151.6	0	*

(1) Measurements of PM_{10} are made every sixth day. Data is the estimated number of days that the standard would have been exceeded had measurements been collected every day.

(2) Nation 1997 24-Hour PM_{10} Standard

*There was insufficient (or no) data available to determine the value.

Source: Air Resources Board Aerometric Data Analysis and Management System (ADAM)

Both CARB and EPA use monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of the designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are nonattainment, attainment, and unclassified. Unclassified is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of the nonattainment designation, called nonattainment-transitional. The nonattainment-transitional is given to nonattainment areas that are progressing and nearing attainment. Below are the Attainment Designations for the City of Merced for each of the criteria pollutants.

Merced County Attainment Designation (Federal and State)

Pollutant	Designation/Classification	
	Federal Standards	**State Standards**
Ozone - One Hour	No Federal Standard (See note below)	Nonattainment/ Severe
Ozone - Eight Hour	Nonattainment	Nonattainment
PM_{10} (Particulate Matter 10 micrometers in diameter)	Unclassified/Attainment	Nonattainment
$PM_{2.5}$ (Particulate Matter 2.5 micrometers in diameter)	Nonattainment	Nonattainment
Carbon Monoxide	Unclassified/Attainment	Unclassified
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Pollutant	**Designation/Classification**	
	Federal Standards	**State Standards**
Sulfur Dioxide	Unclassified/Attainment	Attainment
Lead (Particulate)	Unclassified/Attainment	Attainment
Hydrogen Sulfide	*No Federal Standard*	Unclassified
Sulfates	*No Federal Standard*	Attainment
Visibility Reducing Particles	*No Federal Standard*	Unclassified
Note: The Federal One Hour Ozone national Ambient Air Quality Standard was revoked on June 15, 2005		

Source California Air Resources Board, 2009, U.S. EPA, 2009

The San Joaquin Valley Air Pollution Control District (SJVAPCD) attains and maintains air quality conditions in Merced County through a comprehensive program of planning regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of the SJVAPCD includes the preparation of plans for the attainment of ambient air quality standards adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. The SJVAPCD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the Federal Clean Air Act (FCAA) and the California Clean Air Act (CCAA).

The Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) is an advisory document that provides lead agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. The GAMAQI contains the following applicable components:

- Criteria and thresholds for determining whether a project may have a significant adverse air quality impact;
- Specific procedures and modeling protocols for quantifying and analyzing air quality impacts;
- Methods available to mitigate air quality impacts; and,
- Information for use in air quality assessments and EIR's that will be updated more frequently such as air quality data, regulatory setting, climate, topography, etc.

The SJVAPCD has also prepared the Air Quality Guidelines for General Plans (AQGGP) (revised June 2005) to provide local planning agencies with a comprehensive set of goals and policies that will improve air quality if adopted in a general plan to provide a guide to cities and counties for determining which goals and policies are appropriate in their particular community; and to provide justification and rationale for the goals and policies that will convince decision makers and the public that they are appropriate and necessary.

ISR – Indirect Source Review. The ISR Rule (Rule 9510) and the Administrative ISR Fee Rule (Rule 3180) are the result of state requirements outlined in the California Health and Safety Code, Section 40604 and the State Implementation Plan (SIP). The SIP's commitments are contained in the District's 2003 PM_{10} and NOx in order to reach the ambient air-pollution standards on schedule. The Plans identify growth and reductions in multiple source categories. The Plans quantify the reduction from current District rules and proposed rules, as well as state and federal regulations, and then model future emissions to determine if the District may reach attainment for applicable pollutants (http://www.valleyair.org/ISR/ISROverview.html).

The rule applies to new developments that are over a certain threshold size. Any of the following projects require an application to be submitted unless the projects have mitigated emissions of less than two tons per year each of NOx and PM_{10}. Projects that are at least:

- 50 residential units;
- 2,000 square feet of commercial space;
- 9,000 square feet of educational space;
- 10,000 square feet of government space;
- 20,000 square feet of medical or recreational space;
- 25,000 square feet of light industrial space;
- 39,000 square feet of general office space;
- 100,000 square feet of heavy industrial space;
- 9,000 square feet of any land use not identified above.

Air Quality Plans. The SJVAPCD submitted the 1991 Air Quality Attainment Plan in compliance with the requirements set forth in the CCAA. In addition, the CCAA requires a triennial assessment of the extent of air quality improvements and emission reductions achieved through the use of control measures. As part of this assessment, the attainment plan must be reviewed and, if necessary, revised to correct for deficiencies in progress and to incorporate new data or projections. The CCAA requirement for a first triennial progress report and revisions of the 1991 Air Quality Attainment Plan was first fulfilled with the preparation and adoption of the 1995-1997 Triennial Progress Report and Plan Revision. Triennial reports were also prepared for 1997-2000, and 1999-2001 in compliance with the CCAA.

In an effort to reach attainment for ozone, the SJVAPCD has adopted and submitted several ozone and PM_{10} plans in its planning history in an effort to reach attainment. In the most current effort to reach attainment for ozone, the SJVAPCD submitted the 2007 Ozone Plan. This plan contains a comprehensive and exhaustive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate matter precursors throughout the Valley. Additionally, this plan calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution, and a significant increase in state and federal funding for incentive-based measures to create adequate reductions in emissions to bring the entire Valley into attainment

with the federal ozone standard. The proposed plan calls for a 75% reduction in ozone-forming oxides of nitrogen (NOx) emissions.

In June 2003, the District prepared the 2003 PM_{10} Plan. The 2003 PM_{10} Plan was amended in 2005. The 2006 PM_{10} Plan Update was adopted by the SJVAPCD in February 2006 and contains the existing measures adopted by EPA, CARB, and the SJVAPCD and the additional measures needed to reach attainment of the PM_{10} standards.

The SJVAPCD's planning documents also identify voluntary strategies to further reduce air quality impacts in the San Joaquin Valley Air Basin (SJVAB). Included in these strategies are an enhanced California Environmental Quality Act (CEQA) program and the promotion of air quality elements or policies for General Plans in all SJVAB cities and counties. The SJVAPCD reviews and comments on CEQA documents and permit applications sent from SJVAB public agencies. Comments from the SJVAPCD include expert advice on level of significance, applicable rules and regulations, and suggested mitigation measures.

In addition to the above mentioned items, the SJVAPCD has submitted numerous plans with respect to ozone, PM_{10}, $PM_{2.5}$, and CO in compliance with the FCAA and CCAA.

Thresholds of Significance

With the adoption of the *Merced Vision 2030 General Plan*, there were parameters established within by which future development projects would be reviewed and standards established for approval of projects.

The SJVAPCD has established thresholds of significance for determining environmental significance. These thresholds separate a project's short-term emission from the long-term emissions. The short-term emissions are mainly related to the construction phase of a project, which are recognized to be short in duration. The long-term emissions are primarily related to the activities that will occur indefinitely as a result of project operations.

Impacts will be evaluated both on the basis of CEQA Appendix G criteria and SJVAPCD significance criteria.

In order, the impacts to be evaluated will be those involving construction, operations emissions of criteria pollutants [Particulate Matter (PM_{10}) and reactive organic gas precursors to ozone], and cumulative air quality impacts. Because the area is non-attainment for ozone and PM_{10}, a major criterion for review is whether the project will result in a net increase of pollutants impacting ozone precursor pollutants and of PM_{10}.

Where environmental impacts are found to be significant or potentially significant, mitigation measures are identified to mitigate or avoid significant environmental effects.

In addition to the site-specific mitigation measures delineated for in the City's General Plan, the City shall be required to implement reasonable feasible management practices required by the San Joaquin Valley Air Pollution Control District, or any other federal or state air quality regulatory agency for the purpose of mitigating any significant impacts from the emission of Particulate Matter, Fine Particulate matter, Reactive Organic Gases, Nitrogen oxide, and any other criteria air pollutant or precursor emanating from implementations of the City's General Plan.

Consistent with Appendix G of the CEQA Guidelines, the proposed project is considered to have a significant impact on the environment if it will:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or,
- Create objectionable odors affecting a substantial number of people.

Thresholds Used for Odor Evaluation

While odors are considered to be offensive and seldom cause any physical harm to people, they certainly can be unpleasant and lead to considerable amounts of anguish to the public and often leads to complaints made to the local jurisdiction from the community. Any project with the potential to expose the community to offensive odors would be considered a significant impact. The GAMAQI states that an evaluation should be conducted for both of the following situations: 1) a potential source of objectionable odors is proposed for a location near existing sensitive receptors, and 2) sensitive receptors are proposed to be located near an existing source of objectionable odors.

Thresholds Used for Sensitive Receptors

One of the criteria for significance includes potential impacts of Hazardous Air Pollutants (HAPs) on sensitive receptors. The GAMAQI, Section 3, defines a sensitive receptor as a location where human populations, especially children, seniors, and sick persons are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include, but are not limited to: residential land uses, schools, hospitals, convalescent homes, and day care centers.

Examples of HAPs include emission of criteria or toxic air pollutants that have health effects ($PM_{10,}$ ammonia, H_2S sulfur dioxide, etc.). Sensitive receptors would not be directly affected by emissions of regional pollutants such as ozone precursors (VOC and NOx).

The potential for impacts to sensitive receptors can occur when a sensitive receptor is proposed near an existing source of HAPs, or when a development that is a source of HAPs is proposed near sensitive receptors, including siting a source of HAPs near an undeveloped site, but designated as a sensitive receptor land use.

Impact Analysis

The SJVAPCD has established a three-tiered approach to determining significance related to a project's quantified ozone precursor emissions. The three levels of analysis include Small Project Analysis Level (SPAL), Cursory Analysis Level (CAL), and Full-Analysis Level (FAL). The SJVAPCD pre-calculated the emissions on a large number of types of projects to identify the level at which a project would have no potential to exceed emission thresholds. This information was determined for five land use categories according to the number of vehicle trips a project type generates, and according to the sizes of various development projects. Projects

under these size thresholds qualify to complete the SPAL approach. According to the SPAL requirements, no quantification of ozone precursor emissions is needed for projects less than or equal to the size thresholds. However, if other emission factors such as toxic air contaminants, hazardous materials, asbestos, or odors are apparent, these emissions must be addressed.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
C. <u>Air Quality.</u> Would the project:				
1) Conflict with or obstruct implementation of the applicable air quality plan?		✓		
2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		✓		
3) 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 ozone precursors)?			✓	
4) Expose sensitive receptors to substantial pollutant concentrations?			✓	
5) Create objectionable odors affecting a substantial number of people?			✓	

1) **Less Than Significant Impact With Mitigation**

The project will not conflict or obstruct implementation of any applicable air quality plan. This includes the 2007 PM_{10} Maintenance Plan, the 2007 Ozone Plan, or the 2008 $PM_{2.5}$ Plan. The project will not violate any air quality standards, result in a cumulatively considerable net increase of any criteria pollutant, or expose sensitive receptors to substantial pollutant concentrations. However, prior to construction of the project, the applicant would be required to comply with District Rule 9510 (Indirect Source Review) as well as other District Rules. This would reduce the impact to a less than significant level.

The SJVAB is designated nonattainment of State and Federal health based air quality standards for ozone and $PM_{2.5}$. The SJVAB is designated nonattainment of state PM_{10}. To meet Federal Clean Air Act requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM_{10} Maintenance Plan and Request for Re-designation; and,
- 2008 $PM_{2.5}$ Plan.

The SJVAPCD's AQAPs account for projections of population growth and vehicle miles traveled (VMT) provided by the Council of Governments (COG) in the SJVAB and identify strategies to bring regional emission into compliance with federal and State air quality standards. Because population growth and VMT projections are the basis of the AQAPs' strategies, a project would conflict with plans if it results in more growth or vehicle miles traveled than the plans' projections. The primary way of determining if a project would result in more growth or vehicle miles traveled than in the AQAPs is to determine consistency with the applicable General Plan.

The recently adopted *Merced Vision 2030 General Plan* is the applicable General Plan. However, the population projections used in the previous General Plan (*Merced Vision 2015 General Plan),* included projects through 2035 and the projections were higher than those used in the 2030 General Plan. Therefore, it is reasonable to assume the growth was accounted for in the AQAPs calculations and this project would not create a significant impact.

Population Projections (1990 to 2035)
Excerpted from the *Merced Vision 2015 General Plan*

Year	City 2015 SUDP	Percent of County
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%

Population Projections (2000 to 2030)
Excerpted from the *Merced Vision 2030 General Plan*

Year	City 2015 SUDP	Percent of County
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%

Mitigation Measure

C-1) The project applicant shall submit an Indirect Source Review (ISR) to the San Joaquin Air Pollution Control Board in compliance with District Rule 9510 and shall comply with all other applicable District Rules. The San Joaquin Valley Air Pollution Control District recommends this application be submitted as early as possible or prior to the final discretionary approval.

C-2) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

2) **Less Than Significant Impact With Mitigation**

There are two pollutants of concern for this impact: CO and localized PM_{10}. The proposed General Plan Amendment, Specific Plan Revision, and Site Utilization Plan Revision would not result in localized CO hotspots or PM_{10} impacts, as discussed below. Therefore, the proposed project would not violate an air quality standard or contribute to a violation of an air quality standard in the project area.

Localized PM_{10}

Localized PM_{10} would be generated by project construction activities, which would include earth disturbing activities. The proposed project would comply with SJVAPCD's Regulation VII dust control requirements during construction and demolition (including Rules 8011, 8031, 8041, and 8071 as required by the demolition permit conditions). Compliance with this regulation would reduce the potential for significant localized PM_{10} impacts to less than significant levels.

CO Hotspot

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impact to the level of service (LOS) of roadways in the project vicinity.

Temporary construction emissions associated with the construction of the carwash would result from site excavation, site grading, building construction, architectural coatings, and paving activities. Short-term emission of ROG, NOx, CO, $PM_{10,}$ and $PM_{2.5}$ would be generated during the construction activities. Pollutant emission would vary daily, depending on the level of activity, specific operations, and prevailing weather. Operational emission associated with the proposed project would result from additional employee trips and additional customer trips.

As previously indicated, SJVAPCD requires that all construction activities comply with fugitive dust control requirements under Regulation VIII, and guidance from SJVAPCD staff indicates that implementation of a Dust Control Plan would satisfy all the requirements of SJVAPCD Regulation VIII. Pursuant to Regulation VIII, the project-specific Dust Control Plan will be required to be prepared and submitted to SJVAPCD at least 30 days prior to the start of construction.

Mitigation Measures:

C-3) Compliance with Mitigation Measures C-1 and C-2 above would reduce this impact to a less than significant level.

3) **Less than Significant**

SJVAPCD's CEQA Guidelines indicate that a violation of SJVAPCD's construction or operational thresholds of significance would result in a project level cumulative impact. The project emissions do not exceed the threshold set by SJVAPCD, therefore, the cumulative effect would be less than significant.

4) **Less than Significant**

Diesel Exhaust from Construction Activities:

Construction activities are anticipated to involve the operation of diesel-powered equipment. In 1998, CARB identified diesel exhaust as a toxic air contaminant (TAC). SJVAPCD does not consider construction-equipment-diesel-related cancer risks to be an issue because of the short-term nature of construction activities. Cancer health risks associated with exposure to diesel exhaust typically are associated with chronic exposure, in which a 70-year exposure period often is assumed. Although elevated cancer rates can result from exposure periods of less than 70 years, acute exposure to diesel exhaust typically are not anticipated to result in an increased health risk because acute exposure typically does not result in the exposure concentration as necessary to result in a health risk. Because the construction phase of the project using diesel powered equipment would not last for more than 90 days, it is not anticipated to cause any health impacts.

Carbon Monoxide Hotspots

Elevated levels of CO concentrations are typically found in areas with significant traffic congestion. CO is a public health concern because it combines readily with hemoglobin and reduces the amount of oxygen transported in the bloodstream. SJVAPCD requires localized CO concentrations associated with traffic congestion be analyzed to ensure that monitored concentrations remain below CAAQS and NAAQS, and to ensure that sensitive receptors are not exposed to elevated localized concentrations near roadways that may not show up at monitoring stations. SJVAPCD has developed a set of preliminary screening criteria that can be used to determine with fair certainty that the effect a project has on any given intersection would not cause a potential CO hotspot. A project can be said to have no potential to create a CO violation or create a localized "hotspot" if either of the following conditions are not met: Level of Service (LOS) on one or more streets or intersections will be reduced to LOS E or F; or the proposed project would substantially worsen already LOS F street or intersection within the project vicinity. The project site is located along two Collector roads (Pacific Avenue and Horizons Avenue). These streets currently operate at an acceptable level of service. The project would not generate enough traffic to reduce the level of service for these roadways below LOS E or LOS F. Therefore, this impact is considered to be less than significant.

5) **Less Than Significant**

The project may cause temporary odors resulting from diesel exhaust during construction equipment operation and truck activity. Although these emissions may be noticeable from time to time by adjacent receptors, they would be localized and are not likely to adversely affect people off-site resulting in confirmed odor complaints. Therefore, this is a less than significant impact.

D. Biological Resources

SETTING AND DESCRIPTION

The plan 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 and the San Joaquin Valley to the south and it ranges between the Sierra Nevada Foothills to the east to 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.

According to the State of California, Department of Fish and Game Natural Diversity Data Base (NDDB), the site does not include any plant and/or animal species listed as threatened or endangered by the State of California or the Federal Government. Furthermore, 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. Given the adjacent, built-up, urban land uses and major roadways, no form of unique, rare or endangered species of plant and/or animal life could be sustained on the subject site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
D. <u>Biological Resources.</u> Would the project:				
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?		✓		

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 ordinance 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) **Less Than Significant Impact with Mitigation**

The proposed project would not have any direct effects on animal life by changing the diversity of species, number of species, reduce any rare or endangered species, introduce any new species, or deteriorate 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, which is surrounded by developed urban uses, does not contain any rare or endangered species of plant or animal life. However, there is a stand of trees just south of the site adjacent to Fahrens Creek that could house various animal species. In order to protect any wildlife in the area, the following mitigation measures are being implemented which would reduce any impacts to a less than significant level. These mitigation measures were included as mitigation measures for the project site when it was originally annexed to the City in 2001 (Annexation Application #00-03, Pre-Zone Application #00-03, and General Plan Amendment #00-09). In addition, compliance with the following General Plan policies would help reduce any potential impacts on wildlife habitat.

Goal Area OS-1: Open Space for the Preservation of Natural Resources	
Policies:	
OS-1.1	Identify and mitigate impacts to wildlife habitats which support rare, endangered, or threatened species.
OS-1.2	Preserve and enhance creeks in their natural state throughout the planning area.

Mitigation Measures:

D-1) If any development takes place during the Swainson's Hawk nesting season (late March through July), a pre-construction survey shall be conducted by a qualified biologist to determine whether nesting activities are taking place within the area. If it is found that nesting activities are taking place, the project shall take necessary actions, including delaying the start of construction, to ensure the species is not disturbed.

D-2) With regard to the Giant Garter Snake, for any development taking place in proximity to Fahrens Creek corridor, from the west edge of R Street to the north edge of Yosemite Avenue the following actions shall be taken:

a) Provide environmental awareness training to contractors doing work in this area;

b) Restrict construction along the Creek to only the snake's active season (May 1 through September 30); and,

c) Have a qualified biologist conduct pre-construction surveys 24 hours in advance of construction activities.

D-3) No development shall occur within 50 feet of the centerline of the creek (or 25 feet from the crown, whichever is greater).

D-4) The project shall comply with all applicable mitigation measures for Expanded Initial Study (EIS) #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09. Refer to the Mitigation Monitoring Program prepared for EIS #00-31 at Attachment E.

2) **Less Than Significant Impact with Mitigation**

The proposed project would not have any direct effects on riparian habitat or 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 located adjacent Fahrens Creek. However, the proposed project would not interfere with the creek. The parking lot for the apartments would be approximately 180 feet from the edge of the creek and the nearest building would be approximately 220 feet away. No riparian habitat or other sensitive natural community has been identified on the site. However, due to the close proximity to Fahrens Creek and the mitigation measure previously applied with the annexation of this property, the Mitigation Measures outlined in Item 1 above, would apply. This would reduce any impacts to a less than significant level.

Mitigation Measures:

D-5) Compliance with Mitigation Measures D-1 through D-4 would reduce this impact to a less than significant level.

3) **No Impact**

The project site would not have any direct effect on wetlands as no wetlands have been identified in this area. All of the area surrounding the subject site has been modified from its original state and is developed with urban uses.

4) **Less Than Significant Impact with Mitigation**

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 impeded the use of native wildlife nursery sites. A "Special-Status Special Assessment" was conducted for the area in 2001. At that time, several wildlife species were observed on the site. The Swainson Hawk was observed, but there were no signs of any nesting areas for the bird. No other protected species was found on the site. For a complete list of the wildlife observed in the May 16, 2001 Field Survey, please refer to Attachment F.

Mitigation Measures:

D-6) Compliance with Mitigation Measures D-1 through D-4 would reduce this impact to a less than significant level.

5) **Less Than Significant Impact with Mitigation**

The proposed project would not conflict with local policies and/or ordinances protecting biological resources. There are no trees or other vegetation present on the site. The City's General Plan does not identify this site as being a biological resource. However, based on the Expanded Initial Study done at the time the property was annexed (Expanded Initial Study #00-31), mitigation measures are required to ensure no protected plant or animal species is harmed.

Mitigation Measures:

D-7) Compliance with Mitigation Measures D-1 through D-4 would reduce this impact to a less than significant level.

6) **No Impact**

The proposed project would not have any effects on 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 Senra 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. Quite frequently, they are small outcroppings visible on the earth's surface. While the surface outcroppings are important indications of paleontologic resources, it is the geologic formations that are the most important. There are no known sectors within the project area known to contain sites of paleontologic 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 maintained by the Merced Historical Society. There are no listed historical sites on the Project site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
E. <u>Cultural Resources.</u> Would the project:				
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 with Mitigation**

The project would not alter or destroy any historic archaeological site, building, structure, or object, nor would it alter or affect unique ethnic cultural values or restrict religious or sacred uses.

A cultural resources records search was conducted by the Central California Information Center (CCIC) at California State University, Stanislaus as part of the City's General Plan update. No historic resources were found at or near the project site. The impact of this project would be less than significant. However, as part of the Expanded Initial Study (EIS) prepared for this site as part of the annexation process in 2000, mitigation measures were applied to ensure no cultural resources would be disturbed. This project would be required to comply with those mitigation measures.

Mitigation Measures:

E-1) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09.

2) **Less Than Significant Impact with Mitigation**

The project would not alter or destroy any prehistoric archaeological site, building, structure, or object, nor would it alter or affect unique ethnic cultural values or restrict religious or sacred uses.

A cultural resources records search was conducted by the Central California Information Center (CCIC) at California State University, Stanislaus as part of the City's General Plan update. No archeological resources were found at or near the project site. However, the project is required to comply with all mitigation measures applied to EIS #00-31. Therefore, this impact would be less than significant.

Mitigation Measures:

E-2) Compliance with Mitigation Measure E-1 would make this impact less than significant.

3) **Less Than Significant Impact with Mitigation Measures**

The project would not alter or destroy any paleontological resource, site or unique geologic feature.

A cultural resources records search was conducted by the Central California Information Center (CCIC) at California State University, Stanislaus as part of the City's General Plan update. No paleontological resources were found at or near the project site. Compliance with the previously applied mitigation measures for this site is required and would reduce any impact to a less than significant level.

Mitigation Measures:

E-3) Compliance with Mitigation Measure E-1 would make this impact less than significant.

4) **Less Than Significant Impact with Mitigation Measures**

The proposed project would not disturb any human remains, including those interred outside of formal cemeteries, alter or affect unique ethnic cultural values or restrict religious or sacred uses. There are no known internment facilities in the project area. In compliance with the previously approved mitigation measures for this site, if human remains are discovered during construction, no further disturbance shall occur until the County Coroner has been contacted and made the necessary findings as to origin and disposition in accordance with Public Resources Code §5097.98.

Mitigation Measures:

E-4) Compliance with Mitigation Measure E-1 would make this impact 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 west 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 lowlands 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 of Jurassic to recent age. A review of the geologic 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 as movement or slippage occurring 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

According to the USDA Natural Resources Conservation Service website, the soil on the site includes Yokohl clay loam, 0 to 3 persent slopes (YbA). 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.

The City of Merced regulates the effects of soils and geological constraints primarily through the enforcement of the California Building Code (CBC), which requires the implementation of engineering solutions for constraints to development posed by slopes, soils, and geology.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
F. <u>Geology and Soils.</u> Would the project:				
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 off-site 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?		✓		
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**

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, and no impact would result from the project.

According 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, detailed geotechnical engineering investigation required in compliance with the California Building Code (CBC) would be required for the project.

There will be no exposure to any geologic hazards in the project area.

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 limits development in areas identified as having special seismic hazards. All structures shall be designed and built in accordance with the standards of the California Building Code. Pursuant to CEQA §15162, the project will not create any impacts that warrant additional environmental documentation over and above the impacts addressed in the City's General Plan EIR.

APPLICABLE GENERAL PLAN GOALS AND POLICIES:

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

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

2) **Less Than Significant Impact with Mitigation**

Construction of the proposed project could result in temporary soil erosion and the loss of top soil due to construction activities, including clearing, grading, site preparation activities, and installation of the proposed drainage and on-site sewer and water systems. Construction activities disturbing one or more acres are required by the State Water Resources Board (SWRCB) to obtain a General Construction Activity Stormwater Permit, which would require the proposed project to implement a Storm Water Pollution Prevention Plan (SWPPP). Project compliance with SWRCB and the City of Merced regulations to avoid erosion siltation effects would reduce this impact to less than significant.

Mitigation Measures:

F-1) The project shall comply with all requirements of the State Water Resources Board (SWRCB) and obtain a General Construction Activity Stormwater Permit.

F-2) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09.

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 the SUDP/SOI and the potential for lurch cracking and lateral spreading is, therefore, very low within the SUDP/SOI area.

4) **Less Than Significant Impact**

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 this impact to less than significant.

5) **Less Than Significant Impact**

The EIR prepared for the City's *Merced Vision 2030 General Plan* states the following:

"According to the Geologic, Geohazards and Environmental Health Hazards Evaluation Report (Geocon Consultants, Inc.), the soils in the SUDP/SOI are not generally considered to be expansive, have a generally low to moderate erosion potential, and are generally considered suitable for wastewater disposal using conventional septic systems."

However, no new septic systems are allowed in the City and any future construction on the site will be required to connect to the City's sewer system. Based on this evaluation, this impact is less than significant.

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 while the potential for wildland fires could increase as large blocks of undeveloped land are annexed into the City. Most of the fires are caused by human activities involving motor vehicles, equipment, arson, and burning of debris.

Airport Safety

The City of Merced is impacted by the presence of two airports-Merced Regional Airport, which is in the southwest corner of the City, and Castle Airport (the former Castle Air Force Base), located approximately eight 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. Now that the Castle Airport is used for civilian purposes, the approach zones for the airport are being re-evaluated.

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.

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.

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 materials 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
G. <u>Hazards and Hazardous Materials.</u> 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?			✓	
4) Be located on a site which is included on a list of hazardous materials site complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			✓	

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			✓	

1) **Less Than Significant Impact**

Construction activities of the proposed project would involve the use, storage, transport, and disposal of oil, gasoline, diesel fuel, paints, solvents, and other hazardous materials. No hazardous materials would be used at the apartment complex. 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.

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

3) **Less Than Significant Impact**

There are no schools located within a ¼-mile radius of the site. Hazardous materials are not expected to be at the project site after construction. However, compliance with Fire Department regulations, as well as state and federal regulations through annual inspections and permitting requirements makes this impact less than significant.

4) **Less Than Significant Impact**

According to the California Department of Toxic Substances Control EnviroStor database search, the project site is not listed as a hazardous waste site, and no significant hazard to the public or the environment would result with project implementation.

5) **Less Than Significant Impact**

The project site is located approximately 5 miles from the Merced Regional Airport and approximately 8 miles from the Castle Airport. The project site is not located in an area for which an Airport Land Use Plan has been prepared, and no public or private airfields are within two miles of the project area. Therefore, no at-risk population working at the site would be exposed to hazards due to aircraft over-flight.

6) **Less Than Significant Impact**

The project site is not located near any private airstrips.

7) **Less Than Significant Impact**

The proposed project will not adversely affect any adopted emergency response plan or emergency evacuation plan. No additional impacts will 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.

Goal Area S-1: Disaster Preparedness	
Goal **General Disaster Preparedness**	
Policies	
S-1.1	Develop and maintain emergency preparedness procedures for the City.
Implementing Actions:	
1.1.a	Keep up-to-date through annual review the City's existing Emergency Plan and coordinate with the countywide Emergency Plan.
1.1.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.
7.1.d	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 in 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 Area of Responsibility" with moderate fire risk.

The City of Merced Fire Department is the responsible agency for responding to fires at the subject site. The project site is located within Fire District 3, and is served by Station #53 located at 800 Loughborough Drive (approximately 1.2 miles from the project site).

H. Hydrology and Water Quality

SETTING AND DESCRIPTION

Water Supplies and Facilities

The City's water supply system consists of four elevated storage tanks with a combined storage capacity of approximately 1.4 million gallons, 19 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.

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 run-off so that it can be metered at acceptable rates into canals and streams which have limited capacity.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
H. <u>Hydrology and Water Quality.</u> Would the project:				
1) Violate any water quality standards or waste discharge requirements?		✓		
2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?		✓		
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			✓	
4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		✓		
5) 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?		✓		
6) Otherwise substantially degrade water quality?			✓	
7) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?		✓		

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
8) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?		✓		
9) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			✓	
10) Inundation by seiche, tsunami, or mudflow?				✓

1) **Less Than Significant Impact with Mitigation**

The existing project site is currently undeveloped and contains mostly pervious surfaces. Construction of the proposed apartment complex and parking facilities will result in the majority of the site being covered with impervious surfaces.

The project is not expected to violate any water quality standards or waste discharge requirements. In addition to compliance with standard construction provisions, the project shall be required to comply with the Draft Merced Storm Water Master Plan and the Storm Water Management Plan, and obtain all required permits for water discharge. Compliance with these requirements and permits would reduce the impact to a less than significant level. Mitigation Measures were implemented with the annexation of the site (EIS #00-31). These measures would need to be implemented (if applicable) to this development. This would reduce any potential impacts 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.

Goal Area P-5: Storm Drainage and Flood Control	
Goal **An Adequate Storm Drainage Collection and Disposal System in Merced**	
Policies	
P-5.1	Provide effective storm drainage facilities for future development.
P-5.2	Integrate drainage facilities with bike paths, sidewalks, recreation facilities, agricultural activities, groundwater recharge, and landscaping.
Implementing Actions:	
5.1.a	Continue to implement the City's Storm Water Master Plan and the Storm Water Management Plan and its control measures.
5.1.c	Continue to require all development to comply with the Storm Water Master Plan and any subsequent updates.

Mitigation Measures:

H-1) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

2) **Less Than Significant Impact with Mitigation**

The City of Merced is primarily dependent on groundwater sources that draw from the San Joaquin aquifer. The City has storage capacity of approximately 1.4 million gallons in four elevated storage tanks, 19 active well sites, and 14 pumping stations, which provide service to meet peak hour urban level conditions and the average daily demand plus fire flows.

The City of Merced has instituted significant water conservation measures in recent years in response to a prolonged drought period in California and the Central Valley. As a result, peak water production declined from its high of 38.3 million gallons per day (MPD) in 1984 to around 31.6 million gallons per day in 1994. In 2007, the amount of water consumed per day had dropped to just over 21.0 million gallons per day. This decline in peak day production has occurred despite the fact that population growth in the City has been occurring.

The proposed apartment project is estimated to use approximately 41,888 gallons of water per day. This would represent 0.20% of the estimated 2007 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 stormwater percolation ponds or pervious surfaces with no substantial net loss in recharge potential anticipated. This reduces this impact to a less than significant level. However, all applicable Mitigation Measures previously approved for this site at annexation would apply.

Mitigation Measures:

H-2) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

3) **Less Than Significant Impact with Mitigation**

The project will be designed to capture all surface water run-off on-site and then drain into the City's existing storm drainage system.

The project site currently consists of pervious surfaces. The proposed project would create impervious surfaces over most of the project site, thereby preventing precipitation from infiltrating and causing it to pond or runoff. Roughly 3-acres of the site are located within a flood way and will remain undeveloped. The required onsite drainage system would connect to the regional drainage basin and would prevent flooding in the area. All mitigation measures previously approved for this site are required to be implemented to reduce any potential impacts to a less than significant level.

Mitigation Measures:

H-3) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

4) **Less Than Significant Impact with Mitigation Measures**

Construction of the project would be required to capture all water run-off on site and meter it into the City's existing storm drain system. The applicant plans to connect the site to the existing 18-inch storm drain line in Compass Pointe Avenue. Documentation is required to verify the capacity of that line and the drainage basin into which the water would ultimately drain to. In addition, all applicable mitigation measures previously approved would be required to be implemented to reduce this impact to less than significant level.

Mitigation Measures:

H-4) The project developer shall provide calculations to the City Engineer verifying the capacity of the existing storm drain line as well as the capacity of the basin into which the water would ultimately drain.

H-5) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

5) **Less Than Significant Impact with Mitigation**

Construction on the site will drain into the City's existing storm drain system. The developer would be required to provide documentation showing the capacity exists within the existing lines and basin to serve this project. The mitigation measures described in #4 above would also apply to this impact.

Mitigation Measures:

H-6) The project developer shall provide calculations to the City Engineer verifying the capacity of the existing storm drain line as well as the capacity of the basin into which the water would ultimately drain.

H-7) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

6) **Less Than Significant Impact**

The construction project will be served by the City's water system and all water runoff will be contained on site then metered out to the City's storm drain system. The construction of the project would not affect the water quality and would not degrade water quality in the area.

7) **Less Than Significant Impact with Mitigation**

The project site has two different flood zones and a portion of the property is located within the floodway. The majority of the parcel (approximately 7 acres) is located outside the 100 year flood plain and is designated as a Flood Zone X on the Flood Insurance Rate Map (FIRM) revised November 10, 2010. Approximately 0.32 acres in the southwest corner of the site are within an AE Flood Zone. The remaining portion of the parcel, approximately 3 acres are within a designated floodway (see map at Attachment G). The construction of the apartment buildings would be within the X and AE designated areas. However, a small portion of the parking area (pavement only) would be located within the floodway. In order to ensure the construction of the parking area would not affect the floodway and increase the risk of flooding to the area, the developer shall provide a hydrology study. In addition, all other mitigation measures approved with the annexation of the site would be implemented. Some of the residential structures would be constructed within a flood zone. All measures required by the California Building Code (CBC) and the Federal Emergency Management Agency (FEMA) would be required to ensure the finished floor of the residential structures are above the flood level. These steps would reduce the potential impact to a less than significant level.

Mitigation Measures:

H-8) The project shall comply with all requirements of the California Building Code and the Federal Emergency Management Agency (FEMA). All necessary documentation related to the construction of the residential uses shall be provided at the building permit stage.

H-9) At the time of submittal for a Conditional Use Permit (CUP), the developer shall provide a hydrology study demonstrating the effects of constructing a portion of the parking area within the flood way. This document shall be reviewed and approved by the Development Services Director.

H-7) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

8) **Less than Signficant with Mitigation**

As described above, the project site has two different flood zones as well as an area within the floodway. As previsouly described, the structures would be located within the areas designated as Zone X and Zone AE. A small portion of the parking area would be located within the floodway (pavement only). In order to ensure the construction of the parking area would not affect the floodway and increase the risk of flooding to the area a hydrology study is required to be reviewed and approved by the Development Services Director at the time the application is submitted for a CUP. In addition, all other mitigation measures approved with the annexation of the site would be implemented. The mitigation measures listed above would reduce this impact to a less than significant level.

9) **Less Than Significant Impact**

As described above, the project site is partially located within a 100-year flood hazard area and, therefore, the project would not place people or structures at risk from flooding if flood control measures in the City's Ordinance are followed. However, the site is located within Bear Creek Inundation Zone. Levees in Merced are owned by the Merced Irrigation District. While the City has no jurisdiction over the levees, the City works closely with the District on a number of issues, including flood control, and impacts to MID facilities due to development. Levee maintenance and its associated funding mechanisms are complicated by various factors outside the City's control. Because these levees are maintained on a regular basis and there have been no previous issues with the levees, it's reasonable to expect that the risk from a levee breaking is less than significant.

10) **No Impact**

The proposed project is located approximately 100 miles from the Pacific Ocean and is distant from any large lakes, at an elevation ranging from approximately 175 feet to 180 feet above MSL. Mudslides and other forms of mass wasting occur on steep slopes in areas that contain susceptible soils or geology, typically as a result of an earthquake or high rainfall event. The project site is located on relatively flat ground. Therefore, the proposed project would not result in a significant impact related to a seiche, tsunami, or mudslides.

I. Land Use and Planning

SETTING AND DESCRIPTION

The project 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 project site is currently vacant and is surrounded by residential uses to the north, and south, and a multi-family development is under construction to the west. There is also land designated for commercial development to the west across Compass Pointe Avenue.

The site currently has two General Plan designations for residential development: 1) Village Residential (VR) which would allow 7 to 30 dwelling units per acre with an average of 10 units per acre; and, 2) Low Density Residential (LD) which would allow 2 to 6 units per acre.

Project Characteristics

The requested project consists of a General Plan Amendment to change the land use designation for a portion of the property from Low Density Residential (LD) to Village Residential (VR). The site is also part of the Fahrens Creek Specific Plan and located within Planned Development #46. The Fahrens Creek Specific Plan and Site Utilization Plan for Planned Development #46 identify approximately 3.66 acres of the site as Village Residential and the remaining area as Low-Density Residential. Therefore, the project request includes revisions to the Fahrens Creek

Specific Plan and Site Utilization Plan to change the area designated as Low Density Residential to Multi-Family/Village Residential.

The project consists of 136 future apartment units within 17 buildings. The project also includes an office/lounge building and swimming pool as well as the required parking for the apartments. Approximately 3 acres of the 10.42-acre site are located within a designated floodway. Therefore, no structures would be allowed in this area. However, with proper documentation, parking areas could be allowed.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. <u>Land Use and Planning.</u> Would the project:				
1) Physically divide an established community?				✓
2) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			✓	
3) Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

1) **No Impact**

The project site is surrounded by urban uses and would become a part of the adjacent, surrounding community. The project would not physically divide the community.

2) **Less Than Significant**

As previously explained, the site has two different General Plan designations as well as two different designations within the Fahrens Creek Specific Plan and the Site Utilization Plan for Planned Development (P-D) #46. The prosed change would allow an increase in the density for the site. The approximately 4 acres that are currently designated as Village Residential would allow 28 to 120 dwelling units at a density of 7 to 30 units/acre. However, out of the approximately 4 acres currently designated Village Residential (VR), approximately 2.2 acres are developable due to the remaining area being within a floodway.

Typically, Low Density residential is developed at a density of 6 units per acre. Therefore, the 6 acres currently designated for Low Density Residential could be developed with 36 dwelling units. The floodway impacts the land designated Low

Density as well. Approximately 1 acre is within the floodway reducing the developable area to approximately 5 acres. This would reduce the maximum number of units allowed to 30 units.

In looking at the entire 10.42-acre parcel, under the current designations, a maximum of 156 units could be constructed. However, because of the floodway, the developable area is reduced to approximately 7.42 acres for development. Given the current land use designation and considering the reduced area available for development, a maximum of 96 units could be constructed (66 units for the area designated Low Density and 30 units for the area designated as Village Residential). By changing the land use designation for the 5 acres currently designated Low Density (LD) to Village Residential (VR), the number of units allowed on that portion of the parcel would increase from 30 units (using 6 units/acre which is typical for Low Density Residential) to a maximum of 150 units based on 30 units per acre. The project proposes the construction of 136 units which would equate to 18 units/acre. However, it is important to keep in mind the impact of the floodway. If the entire site could be developed, the number of units proposed for the site would be less than what could have been constructed under the present land use designations. Therefore, the change would actually result in less units than what could have been allowed with the current General Plan land use designations.

By increasing the area allowed for higher density development, it allows for a better development overall. Spreading the 136 units over approximately 7.42 acres, allows for a more spacious development with more open space and landscaping. In addition, given the commercial designations on the property to the west across Compass Pointe Avenue, a multi-family development would support General Plan Policies to locate higher density residential development close to shopping areas. A bus stop will be installed by the development to the west (Compass Pointe Apartments) which would also serve this development and help to implement General Plan policies for locating multi-family development close to transportation services.

Because the area could have been developed at a higher density than what is proposed, the proposed land use change would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore this impact is less than significant.

APPLICABLE GENERAL PLAN GOALS AND POLICIES:

The *Merced Vision 2030 General Plan* contains policies that address Land Use.

Goal Area L-1: Residential & Neighborhood Development
Goals • **A Wide Range of Residential Densities and Housing Types in the City** • **Quality Residential Developments** • **Ensure Adequate Housing is Available to All Segments of the Population**

Policy	
L-1.2	Encourage a diversity of building types, ownership, prices, designs, and site plans for residential areas throughout the City.

Policy	
L-1.6	Continue to pursue quality single-family and higher density residential development.
Policy	
L-1.7	Encourage the location of multi-family developments on sites with good access to transportation, shopping, employment centers, and services.

3) **No Impact**

No Habitat Conservation Plans or Natural Community Conservation Plans have been adopted by the City of Merced. Therefore, there would be no impact.

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 Merced SUDP/SOI. According to the California Geological Survey, Aggregate Availability in California - Map Sheet 52, Updated 2006, 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 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
J. Mineral Resources. Would the project:				
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?				✓

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**

Based on observed site conditions and review of geological maps for the area, economic deposits of precious or base metals are not known to occur in the Merced SUDP/SOI. Therefore implementation of the proposed project would have no impact on the availability of mineral resources or impact current or future mining operations.

2) **No Impact**

No Mineral Resource Zones or mineral resource recovery sites exist within the City of Merced or in the area designated for future expansion of the City (the SUDP/SOI). Therefore implementation of the proposed project would have no impact on the availability of mineral resources or impact current of future mining operations.

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 occupancy of the apartment units.

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 Sources

Vehicular noise along Yosemite Avenue would be the primary existing noise source at the project site. The project site is approximately 200 feet from Yosemite Avenue and is partially buffered by a stand of Eucalyptus trees and the Dog Park to the south of the site.

Short-term effects would be those related to construction, which would cease once the project is complete. The long-term effects would be those related to traffic and other noise from the project site The traffic to the site would be increased by the higher density development, but the noise impact to the surrounding area would be minimal since the since there are no single-family

residences immediately adjacent to the site. The site design shows the parking areas on the interior of the lot reducing any noise generated from vehicles on the site. Because the site isn't immediately adjacent to arterial roadways, the noise generated from traffic in the area would be minimal. The Dog Park to the south may generate a small amount of noise from the people, cars, and dogs visiting the site, but it would not be enough to be a significant impact.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
K. Noise. 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) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
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 expose people residing or working in the project area to excessive noise levels?				✓
6) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓

1) **Less Than Significant with Mitigation**

Construction Noise

Construction of the project would temporarily increase noise levels in the area during the construction period. The duration of construction is expected to be 120-180 days. Therefore, the noise from construction may be steady for several weeks and then cease all together. Construction activities, including site clearing, building construction, and paving 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. Although construction activities would likely occur only during daytime hours, construction noise could still be considered disruptive to local residents. The City of Merced does not have a noise ordinance, but past practice has been to allow construction activities during daylight hours (between 7:00 a.m. and 7:00 p.m.). Initial Study #00-31 identified mitigation measures to reduce the noise during construction. These measures would be applicable to this project as well.

Operational Noise

Noise from the apartment complex would be primarily traffic related. Although there could be some noise from outdoor activities such as use of the community pool. However, the buildings are sited along the perimeter of the site with all the parking and amenities such as the pool and open space areas on the interior of the site. This design would buffer any noise from the complex escaping into the surrounding neighborhood. These noise levels are not expected to exceed the normally acceptable level of 60 dB as established in the General Plan.

Mitigation Measures:

K-1) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

2) **Less Than Significant Impact with Mitigation**

Refer to Item 1 above regarding construction noise and the need for mitigation measures.

K-2) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

3) **Less Than Significant Impact**

The ambient noise level will increase due to the project as described in Item 1 above. However, it is not expected to increase to a level of significance.

4) **Less Than Significant Impact**

The project construction will cause temporary and periodic increases in the ambient noise level. The operation of the proposed project will cause a slight increase in the ambient noise level. However, because the construction noise will only be temporary and the increase in noise generated from the site is minimal, the impacts are less than significant.

5) **No Impact**

The project is not located within an airport land use plan. Therefore, there will be no impact.

6) **No Impact**

The project is not located within the vicinity of a private airstrip. Therefore, there is no impact.

L. Population and Housing

SETTING AND DESCRIPTION

The implementation of the proposed project would result in the construction and operation of 136 apartments units, an office/lounge building, community swimming pool, and required parking area. The project site is located on a vacant lot surrounded by urban uses.

Expected Population and Employment Growth

According to the State Department of Finance, the City of Merced's population in 2014 was estimated to be 81,130. Population projections estimate that the Merced SUDP area will have a 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 employment growth by the Year 2030.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
L. Population and Housing. Would the project:				
1) Induce substantial 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?				✓
	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

1) **Less Than Significant Impact**

Temporary construction-related jobs would result due to the construction of the project, but it is unlikely that construction workers would need to relocate to Merced in order to work temporarily on the project site. With 136 apartment units and with an estimate of approximately 3 persons per unit, the population of the site will increase to 408 persons or 0.5% of the City's 2014 population of 81,130 (as estimated by the California Department of Finance). Therefore, this is a less than significant impact.

2) **No Impact**

There are no existing homes on the site, therefore this is no impact.

3) **No Impact**

There are no existing homes on the site, therefore this 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. The City's Central Fire Station is located in the downtown area at 16th and G Streets. The City also has four other stations throughout the City. Station #53, located at 800 Loughborough Drive, would serve the project site.

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's). 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. The Project site falls within the Merced City School District and Merced Union High School District (MUHSD).

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 multi-family development at the following rate:

Student Generation Rates

Unit Type	Elementary (K-8) (Students per unit.)	Middle School (Students per unit.)	High School (9-12) (Students per unit.)
Multi Family	0.459	0.100	0.109

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
M. Public Services. Would the project:				
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:				
Fire Protection?			✓	
Police Protection?			✓	
Schools?			✓	
Parks?			✓	
Other Public Facilities?			✓	

1) **Less Than Significant**

Fire Protection

The project site is located within Fire District #3 and would be served by Fire Station #53, located at 800 Loughborough Drive. The response from this station would meet the desired response time of 4 to 6 minutes, citywide. The proposed change in land use designation would not affect the fire protection, but construction of the apartment complex 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.

2) **Less Than Significant**

Police Protection

Development of the project would require additional police services in the area due to developing a vacant lot. The developer shall be required to pay all impact fees (PFFP) to help fund police services for the site. Payment of PFFP's is a requirement of all new development.

3) **Less Than Significant**

Schools

Based on the table provided in the "Settings and Description" section above, the proposed project would generate 62 Kindergarten through 6th Grade students, 14 Middle School Students (7th & 8th Grade), and 4 High School students.

Under the Leroy F. Greene School Facilities Act of 1988, the satisfaction of the developer of his statutory fee under California Government Code §65995 is deemed "full and complete mitigation" of school impacts.

4) **Less Than Significant**

Parks

The development of the apartment complex would not trigger the need to construct a new park in the area. The site is within the vicinity of Fahrens Park and Merced College which provides a large open space area. The site is adjacent to the City's Dog Park and a large open space area will be provided on the site in the area designated as a floodway (see Attachment G).

Payment of the fees required under the Public Facilities Financing Program (PFIF) and formation of a Community Facilities District will be required at time of building permit issuance to help fund future parks and maintenance of existing parks.

5) **Less Than Significant**

Other Public Facilities

The development of the project will impact the maintenance of public facilities and could generate impacts to other governmental services. Payment of the fees required under the Public Facilities Financing Program (PFIF) and formation of a Community Facilities District will 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. A small neighborhood park, the Fahrens Creek Bike Path, and City Dog Park are located within close proximity of the subject site (Attachment H).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
N. Recreation. Would the project:				
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 cause an increase in the use of parks in the area. However, the development would not generate an increase in population (approximately 400 people) to an extent that would be detrimental to the parks or other recreational facilities. The project is located close to a bike path and to the dog park, but the number of people anticipated to use these facilities would not be substantial enough to cause deterioration of the facilities. Additionally, the impact to other parks in the area would not be substantial. However, through the payment of fees into the Community Facilities District, maintenance of these facilities would be funded and any impacts would be reduced to a less than significant level.

2) **Less the Significant Impact**

The project is not responsible for the construction or expansion of any recreational facilities.

O. Transportation/Traffic

SETTING AND DESCRIPTION

The project is located at the southeast corner of Pacific Drive and Horizons Avenue (both local roads). The project site also fronts Stinson Drive (refer to site plan at Attachment D). The proposed project includes a 136-unit apartment complex and 228 parking spaces. The site design includes two driveway entrances. The main entrance would be on Horizons Avenue and a secondary entrance would be on Stinson Drive. Full circulation throughout the site is provided from both entrances.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
O. Transportation/Traffic. Would the project:				
1) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e. result in a substantial increase in either vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?		✓		
2) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roadways?			✓	

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			✓	
4) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?			✓	
5) Result in inadequate emergency access?			✓	
6) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?			✓	

1) **Less Than Significant with Mitigation**

Trip Generation:

The project consists of 136 apartments and is located at the southeast corner of Pacific Drive (Collector Road) and Horizons Avenue (Local road). The project also has frontage along Stinson Drive (local road) between Compass Pointe Avenue (Collector Road) and Horizons Avenue (refer to location map at Attachment A). The subject site consists of 10.4 acres, but because of the floodway on the southern end of the property, only 7.4 acres (approximately) are developable. Access to the site would be from the main driveway on Horizons Avenue or the secondary driveway on Stinson Drive.

According to the Institute of Transportation Engineers (ITE) Trip Generation Manual (8th Edition), the Average Daily Trips (ADT's) for Apartments based on the number of units is 6.65 trips per unit. Based on this rate, the project would generate 904 Average Daily Trips. Peak Hour Trips (PHT's) for one hour between 4 and 6 p.m. are calculated at a rate of .62 trips per unit resulting in 84 PHT's.

If the gross site area was developed at maximum density under the current land use designations (without a reduction due to the floodway), the area designated for Village Residential would generate 798 ADT's and 74 PHT's. The area designated as Low Density Residential would generate 345 Average Daily Trips and 36 Peak Hour Trips. Based on this, the total Average Daily Trips for this site would equal 1,143 ADT's and the Peak Hour Trips would equal 110 PHT's. Therefore, if the site was developed at maximum density under the current land use designations, the traffic generated would be more than that of the proposed development. Therefore, this is a less than significant impact.

The major roadways surrounding the site are R Street to the east, North Highway 59 to the west, and Yosemite Avenue to the south. According to Table 4.4 (Merced SUDP/SOI

Arterial Street System Traffic Volume & Level of Service) of the *Merced Vision 2030 General Plan*, R Street and Yosemite Avenue are currently operating at an acceptable level of service. The General Plan designates a Level of Service (LOS) D as an acceptable level for traffic flow. Based on projections for 2030 (General Plan Buildout), R Street would be operating at an LOS F between Olive Avenue and Yosemite Avenue and would be operating at an LOS C+ from Yosemite Avenue to Cardella Road. Yosemite Avenue is expected to maintain its current level of service of C+ at General Plan Buildout. North Highway 59 is currently operating at an LOS F from Olive Avenue to Yosemite Avenue which is below the acceptable level of service (LOS) established by the General Plan. According to the projections for 2030, this roadway segment is expected to improve to an acceptable level of LOS D.

Although the level of service for R Street is expected to drop below an acceptable level at General Plan Buildout, it would not be due to this proposed change. Therefore, this project is not responsible for any future improvements to R Street. The same is true for North Highway 59. Even though it currently operates at an unacceptable level (LOS F), this project is not responsible for any improvements to this roadway. The proposed project would not generate enough traffic on any of the City's major roadways to reduce the level of service below an acceptable level. The Public Facilities Impact Fees and Regional Transportation Impact Fees for the project will pay for its impacts to regional and City roadways.

Although the traffic generated by this project does not cause a significant impact, the project is responsible for complying with all previous mitigation measures dealing with traffic and circulation approved with the annexation of this site.

Mitigation Measures:

O-1) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment E).

2) **Less Than Significant**

As described above, the project fronts on Pacific Drive, a Collector Road and Horizons Avenue and Stinson Drive, both local roadways. As described above, two of the three major roadways near the site currently operate at an acceptable level of service. North Highway 59 is currently operating at an LOS F. However, this project would not be generating enough traffic to drop the existing levels of service below their current levels. Therefore, this impact would be less than significant.

3) **Less Than Significant**

The project will not result in any changes to air traffic patterns. The project site is not located within an airport use zone or in the vicinity of a private airstrip.

4) **Less Than Significant**

The project will not increase hazards due to a design feature or incompatible uses. The roadway design surrounding the project was adopted with the City's General Plan. No changes to the roadway design are being considered with this project.

5) **Less Than Significant**

The project site can be accessed from Horizons Avenue via Pacific Drive or from Stinson Drive via Compass Pointe Avenue. By providing two access points, the project provides sufficient emergency access. This impact is less than significant.

6) **Less Than Significant**

The project will not conflict with any policies, plans, or programs supporting alternative transportation.

P. Utilities and Service Systems

SETTING AND DESCRIPTION

Water

The City's water system is composed of 23 groundwater production wells located throughout the City, approximately 350 miles of main lines, and 4 water tower tanks for storage. 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 outage. The City of Merced water system delivered more than 24 million gallons of drinking water per day in 2013 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 day demand plus fire flow, whichever is stricter. The City of Merced Water system delivered 20.75 million gallons of drinking water per day in 2009 to approximately 20,269 residential, commercial, and industrial customer locations. 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 geologic 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 two-year planning process to assure 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 2006 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 City requires the construction of storm water percolation/detention basins with new development. Percolation basins are designed to collect storm water and filter it before it is absorbed into the soil and reaches groundwater tables. Detention basins are designed to temporarily collect runoff so it can be metered at acceptable rates into canals and streams which have limited capacity. 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 Highway 59 Landfill and the Highway 59 Compost Facility, located at 6040 North Highway 59, one and one-half miles north of Old Lake Road. The County of Merced is the contracting agency for landfill operations and maintenance, while 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 SR 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
P. <u>Utilities and Service Systems.</u> Would the project:				
1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			✓	
2) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
3) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
4) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	
5) 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?			✓	
6) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
7) Comply with federal, state, and local statues and regulations related to solid waste?			✓	

1) **Less Than Significant Impact**

The proposed project would be served by the City's wastewater treatment plant which was recently upgraded to increase the capacity to 12 mgd. Future improvements planned from the facility will add another 8 mgd in capacity for a total of 20 mgd. This capacity is sufficient for serving this project and other future developments within the City of Merced.

2) **Less Than Significant Impact**

The project is expected to use approximately 41,888 gallons of water per day in water and to produce approximately 34,952 gallons of sewage per day. The City's current water system is capable of handling this increase as is the City's wastewater treatment plant. No additional facilities are required.

3) **Less Than Significant Impact**

Storm water from the development is required to be captured on-site and metered into the City's storm drain system. The City's current storm drain system is sufficient to serve this development. No new facilities or expansions of existing facilities is needed.

4) **Less Than Significant Impact**

As explained above, no new water facilities are needed for this project. The existing water system is sufficient to serve the development.

5) **Less Than Significant Impact**

Refer to item 2 above.

6) **Less Than Significant Impact**

The City of Merced uses the Highway 59 landfill. Sufficient capacity is available to serve the future apartment complex. According to the *Merced Vision 2030* General Plan DEIR, the landfill has capacity to serve the City through 2030.

7) **Less Than Significant Impact**

All construction on the site would be required as a condition of approval to comply with all local, state, and federal regulations regarding solid waste, including recycling.

Q. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Q. Mandatory Findings of Significance. 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?			✓	

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 could have the potential to adversely affect biological resources or cultural resources because such resources are located close to the project site. However, any potential impacts would be avoided with implementation of the mitigation measures and 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 of the proposed change will contribute to the cumulative impacts identified in the General Plan EIR. 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 prime agricultural soils, 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 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 has 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 has been adopted by City Council Resolution #2011-63 that indicates that the significant impacts associated with development of the Project are offset by the benefits that will be realized in providing necessary jobs for residents of the City. The analysis and mitigation of impacts has been detailed in the Environmental Impact Report prepared for the *Merced Vision 2030 General Plan*, which are 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.

R. Greenhouse Gas Emissions

SETTING AND DESCRIPTION

The issue of project-generated Greenhouse Gas (GHG) Emissions is a reflection of the larger concern of Global Climate Change. While GHG emissions can be evaluated on a project level, overall, the issue reflects a more regional or global concern. CEQA requires all projects to discuss a project's GHG contributions. However, from the standpoint of CEQA, GHG impacts on global climate change are inherently cumulative. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; however, it can safely be assumed that existing conditions do not measurably contribute to a noticeable incremental change in the global climate.

The project applicant provided a Greenhouse Gas study for this project prepared by Rincon Consultants, Inc. (Attachment I). The study analyzed the emissions associated with the proposed project construction and operations.

The City of Merced has not developed or adopted a CEQA threshold for determining the significance of GHG emissions at the project-level. The San Joaquin Valley Air Pollution Control District (SJVAPCD) thresholds were recommended for use in the study. Based on the SJVAPCD, the proposed project would have a less than significant impact if it achieves at least a 29 percent reduction in GHG emissions compared to business as usual (BAU). This reduction is consistent with the AB 32 Scoping Plan (2008).

To determine whether the proposed carwash would result in a 29 percent reduction in BAU GHG emissions, two emissions scenarios were calculated and compared:

BAU Scenario – is reflective of a realistic project scenario that would occur absent project design features and state regulations enacted as a result of AB 32, and is consistent with SJVAPCD's and the Air Resources Board's (ARB) definition of "business as usual."

Project Scenario – is also reflective of a realistic project scenario that includes voluntary project design features and further state regulations enacted as a result of AB 32. The project design features and state regulations accounted for in the Project Scenario include use of energy efficient (LED) lighting, recycled water, efficient irrigation systems, recycling, as well as Renewable Portfolio Standard, Low Carbon Fuel Standard, and Pavley Standards.

THRESHOLDS OF SIGNIFICANCE

The proposed project would result in a significant impact on the environment if it would:

- Generate GHG emissions either directly or indirectly, that may have a significant impact on the environment;
- Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
R. <u>Greenhouse Gas Emissions.</u> Would the project:				
1) Generate greenhouse gas emission, 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 following is an excerpt from the Greenhouse Gas Study provide by Rincon Consultants, Inc. - Attachment I.)

The proposed project would result in GHG emissions from both short-term construction activities and on-going operations. Construction of the proposed project would temporarily generate GHG emissions from the use of construction equipment and vehicle trips made by construction workers and delivery trucks that would travel to and from the project site. Under both the BAU Scenario and Project Scenario, project construction is estimated to generate 472.6 MT CO2E total. To evaluate GHG emissions from project construction, however, construction emissions are amortized over the life of the project (approximately 30-years) and added to the operational emissions. As shown in Table 1, both the BAU Scenario and Project Scenario would generate approximately 15.8 MT CO2E per year when amortized over a 30-year period.

Operation of the proposed project would result in GHG emissions from the following primary sources: energy (electricity and natural gas used on-site), mobile (on-road mobile vehicle traffic generated by the project), solid waste disposal by the land use, water usage by the land use, and area sources (landscaping equipment). As shown in Table 1, operation of the project would generate 2,499.3 MT CO2E per year under the BAU Scenario and 1,668.2 MT CO2E per year under the Project Scenario (a difference of 811.1 MT CO2E per year).

This difference in operational GHG emissions can be attributed to the voluntary project features (i.e., on-site solar energy, high efficiency lighting, low-flow fixtures, water-efficient landscaping systems, pedestrian access, bicycle parking, and destination accessibility), the Renewable Portfolio Standard, Title 24 Energy Efficiency Building Standards, Low Carbon Fuel Standard, and Pavley I Standard, which were applied to the Project Scenario.

Table 1: Project-related GHG Emissions for BAU Scenario and Project Scenario

Source	**GHG Emissions (MT CO_2E per**	
	BAU Scenario	**Project Scenario**
Construction Emissions		
Mobile (30-year amortization)	15.8	15.8
Construction Emissions Subtotal	***15.8***	***15.8***
Operational Emissions		
Area	1.7	1.7
Energy	440.0	334.8
Mobile	1,977.2	1,267.7
Solid Waste	28.4	28.4
Water	52.0	35.6
Operational Emissions Subtotal	***2,499.3***	***1,688.2***
Total GHG Emissions	**2,515.1**	**1,704.0**

As shown in Table 2, total emissions under the BAU Scenario would be 2,515.1 MT CO2E per year and total emissions under the Project Scenario would be 1,704.0 MT CO2E per year (a total difference of 811.1 MT CO2E per year).

Table 2: Summary of Project Reduction from BAU Scenario

	GHG Emissions (MT CO2E per Year)
BAU Scenario Total	2,515.1
Project Scenario Total	1,704.0
Difference Between BAU and	811.1
Percent Reduction from BAU	**32%**
SJVAPCD Threshold	**29%**
Project Meets or Exceeds Threshold (less-than-significant)	**Yes (Less-than-Significant)**

Based on the SJVAPCD's recommended threshold, GHG emissions from the proposed project would be less than significant if the Project Scenario emissions are at least 29 percent below BAU Scenario emissions. As shown in Table 2, the Project Scenario would reduce BAU Scenario emissions by 811.1 MT CO2E per year, or approximately 32 percent, which is greater than the 29 percent threshold. Therefore, GHG emissions from the proposed project would be less than significant.

2) **Less Than Significant Impact**

(The following is an excerpt from the Greenhouse Gas Study provide by Rincon Consultants, Inc.)

Assembly Bill (AB) 32 identifies a statewide target to reduce GHG emissions to 1990 levels by 2020, which is equivalent to "cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 15 percent from today's levels" (Scoping Plan, 2008). The City's Climate Action Plan (2012) also establishes a target to reduce GHG emissions 15 percent below 2008 levels, consistent with AB 32 and its Scoping Plan. Construction and operation of the proposed project would achieve a 32.4 percent reduction in GHG emissions compared to BAU, which exceeds the reduction targets identified in the Scoping Plan and City's Climate Action Plan.

In addition, the proposed project would support many of the goals identified in the Climate Action Plan. The project would help reduce vehicle miles traveled by providing bicycle parking and pedestrian access and being located within a quarter mile of a transit stop, less than a mile from Merced College, and adjacent to the Fahrens Creek multi-use trail. In addition, the project would facilitate energy conservation and renewable energy goals in the Climate Action Plan by installing on-site solar photovoltaic systems and high efficiency lighting. The proposed project would also facilitate water conservation through low-flow fixtures and water-efficient irrigation systems. As such, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions and impacts would be less-than-significant.

S. Environmental Determination

On the basis of this initial environmental evaluation:

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

February 12, 2015

Julie Nelson, Associate Planner

for

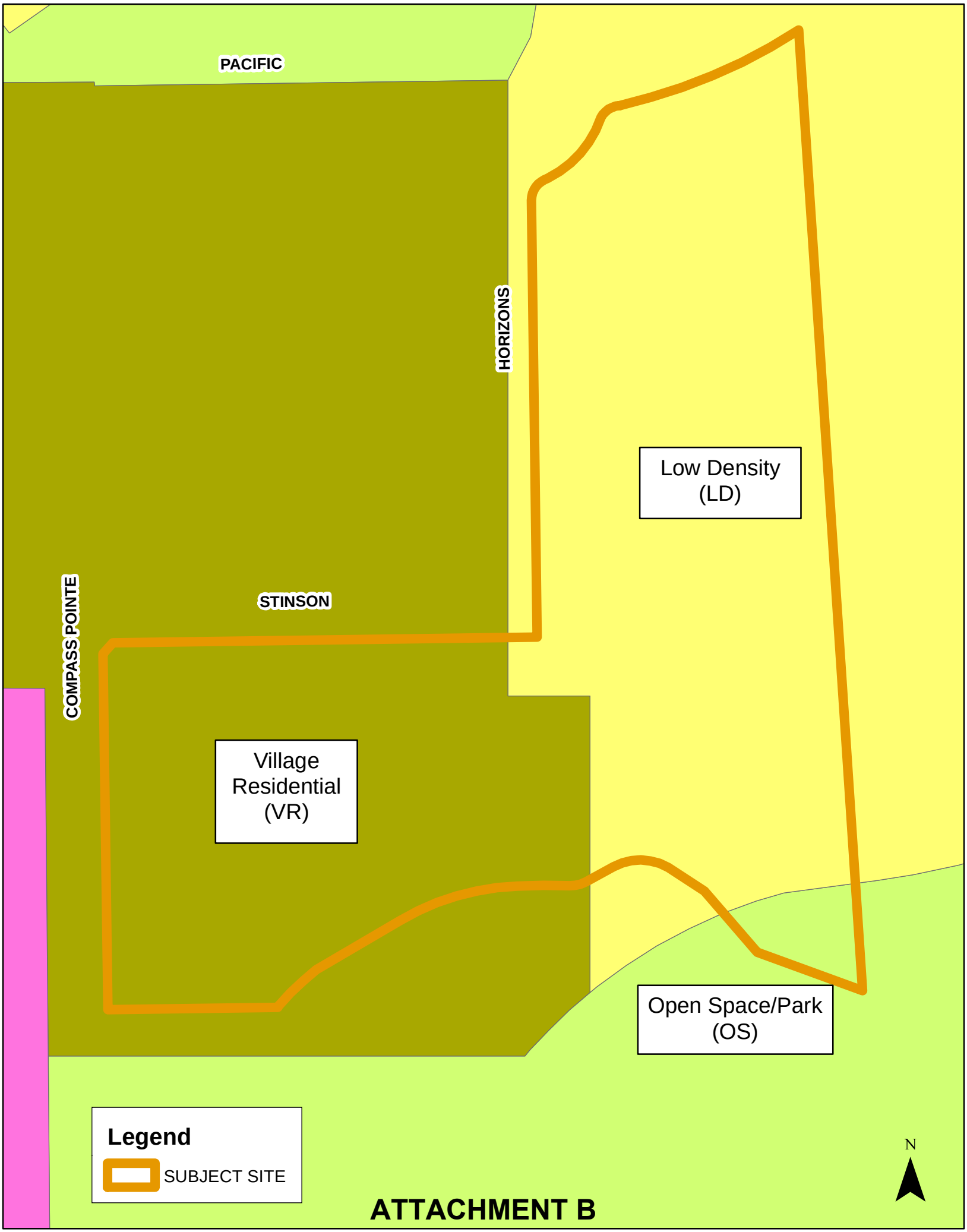
David Gonzalves, Director of Development Services
Environmental Coordinator
City of Merced

Distributed for Public Review: February 12, 2015

Attachments:

A) Location Map
B) General Plan Designations
C) Specific Plan/SUP Map
D) Site Plan
E) Mitigation Monitoring Program – Pending Annexation #00-03
F) Wildlife Observed List
G) Floodway Map
H) Recreation Areas
I) Greenhouse Gas Study
J) Public Hearing Notice
K) Notice Area Map
L) Mitigation Monitoring Program – Initial Study #14-26


SINGLE-FAMILY
PACIFIC
SINGLE-FAMILY
MULTI-FAMILY
HORIZONS
VACANT SINGLE-FAMILY
MULTI-FAMILY
R
COMPASS POINTE
STINSON
SUBJECT SITE
VACANT COMMERCIAL
DOG PARK
YOSEMITE
SIMPLY SPACE
SINGLE-FAMILY
N
ATTACHMENT A

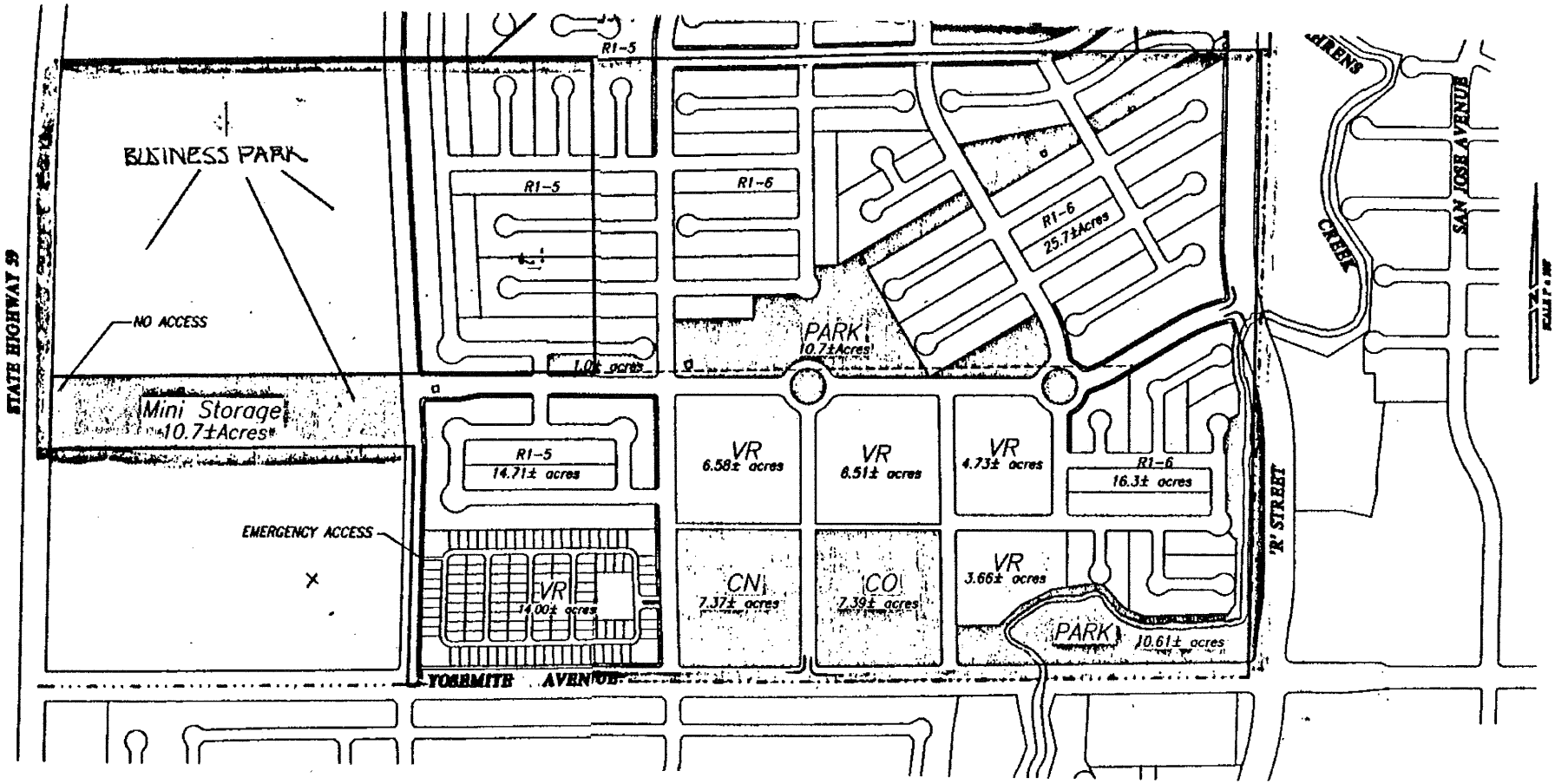


ATTACHMENT B

ATTACHMENT C

FAHRENS CREEK SPECIFIC PLAN MAP

SITE UTILIZATION PLAN FOR PLANNED DEVELOPMENT (P-D) #46



PLANNED DEVELOPMENT DESIGNATIONS:

VR = VILLAGE RESIDENTIAL

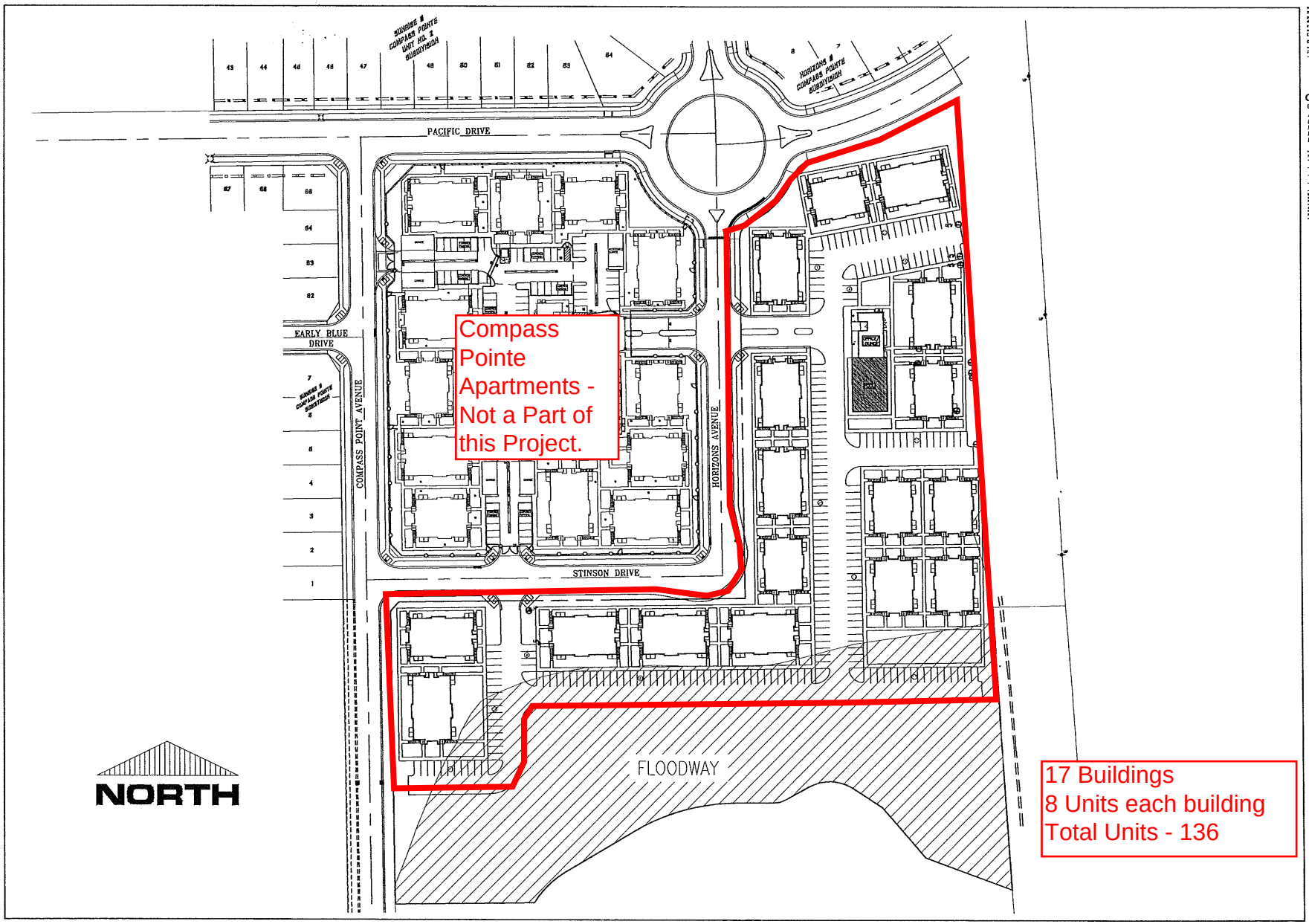
CO = PROFESSIONAL, ADMINISTRATIVE & COMMERCIAL OFFICE

CN = NEIGHBORHOOD COMMERCIAL

R-1-6/R-1-5 SINGLE FAMILY RESIDENTIAL

FAHRENS CREEK SPECIFIC PLAN

ATTACHMENT D



GOLDEN VALLEY
ENGINEERING & SURVEYING
406 West 10th Street 95340
P.O. Box 349
Merced, CA 95341
Ph: (209) 722-3200
Fax: (209) 722-3254

SITE PLAN
APARTMENT COMPLEX
APN: 206-070-006
CITY OF MERCED
CALIFORNIA

SHEET CONTENTS
SITEPLAN

PREPARED FOR
STEINER DEVELOPMENT
554 E. BELLEVUE ROAD, SUITE B
ATWATER, CA 95301
209-070-006

PROJECT DATA
Date: AUGUST 2014
Checked By: JX
Drawn By: KLF
Job No.: 14096

SHEET NUMBER
C1.0

EXPANDED INITIAL STUDY #00-31
for
FAHRENS CREEK ANNEXATION
TO THE CITY OF MERCED

Appendix C

Mitigation Monitoring Program

MITIGATION MONITORING CONTENTS

This mitigation monitoring program includes a brief discussion of the legal basis and purpose of the mitigation monitoring program, a key to understanding the monitoring matrix, a discussion of noncompliance complaints, and the mitigation monitoring matrix itself.

LEGAL BASIS AND PURPOSE OF THE MITIGATION MONITORING PROGRAM

Public Resource Code (PRC) 21081.6 requires public agencies to adopt mitigation monitoring or reporting programs whenever certifying an environmental impact report or mitigated negative declaration. This requirement facilitates implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process.

The City of Merced has adopted its own "Mitigation Monitoring and Reporting Program" (MMC 19.28). The City's program was developed in accordance with the advisory publication, *Tracking CEQA Mitigation Measures*, from the Governor's Office of Planning and Research.

As required by MMC 19.28.050, the following findings are made:

1) The requirements of the adopted mitigation monitoring program for the Fahrens Creek Annexation shall run with the real property that is the subject of Annexation Application #00-31 to the City of Merced. Successive owners, heirs, and assigns of this real property are bound to comply with all of the requirements of the adopted program.
2) Prior to any lease, sale, transfer, or conveyance of any portion of the subject real property, the applicant shall provide a copy of the adopted program to the prospective lessee, buyer, transferee, or one to whom the conveyance is made.

MITIGATION MONITORING PROCEDURES

In most cases, mitigation measures can be monitored through the City's construction plan approval/plan check process. When the approved project plans and specifications, with mitigation measures, are submitted to the City Development Services Department, a copy of the monitoring checklist will be attached to the submittal. The Fahrens Creek Annexation Mitigation Monitoring Checklist will be filled out upon project approval with mitigation measures required. As project plans and specifications are checked, compliance with each mitigation measure can be reviewed.

In instances where mitigation requires on-going monitoring, the Mitigation Monitoring Checklist will be used until monitoring is no longer necessary. The Development Services Department will be required to file periodic reports on how the implementation of various mitigation measures is progressing or is being maintained. Department staff may be required to conduct periodic inspections to assure compliance. In some instances, outside agencies and/or consultants may be required to conduct necessary periodic inspections as part of the mitigation monitoring program. Fees may be imposed per MMC 19.28.070 for the cost of implementing the monitoring program.

General Plan Mitigation Measures

As a second tier environmental document, the *Expanded Initial Study for the Fahrens Creek Annexation to the City of Merced* incorporates some mitigation measures adopted as part of the *Merced Vision 2015 General Plan Program Environmental Impact Report* (SCH# 95082050), as mitigation for potential impacts of the Project. Therefore, following the Fahrens Creek Annexation Mitigation Monitoring Checklist (starting on page A-15) is a list of these relevant General Plan mitigation measures along with the General Plan Mitigation Monitoring Checklists (Forms A and B) to be used to verify that the General Plan mitigation measures have been met.

Noncompliance Complaints

Any person or agency may file a complaint asserting noncompliance with the mitigation measures associated with the project. The complaint shall be directed to the City Planner in written form providing specific information on the asserted violation. The City Planner shall cause an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the City Planner shall cause appropriate actions to remedy any violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue. Merced Municipal Code (MMC) Sections 19.28.080 and 19.28.090 outline the criminal penalties and civil and administrative remedies which may be incurred in the event of noncompliance. MMC 19.28.100 spells out the appeals procedures.

Monitoring Matrix

The following pages provide a series of tables identifying the mitigation measures proposed specifically for the Fahrens Creek Annexation. The columns within the tables are defined as follows:

Mitigation Measure: Summarizes the Mitigation Measure (referenced by number) identified in Expanded Initial Study #00-31.

Timing: Identifies at what point in time or phase of the project that the mitigation measure will be completed.

Agency/Department Consultation: This column references any public agency or City department with which coordination is required to satisfy the identified mitigation.

Verification: These columns will be initialed and dated by the individual designated to verify adherence to the project specific mitigation.

ATTACHMENT E - Page 3

Fahrens Creek Annexation
Mitigation Monitoring Checklist

Project Name:_____
File Number:_____
Approval Date:_____
Project Location_

Brief Project Description _____

The following environmental mitigation measures were incorporated into the Conditions of Approval for this project in order to mitigate identified environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented, and fulfills the City of Merced's Mitigation Monitoring Requirements (MMC 19.28) with respect to Assembly Bill 3180 (Public Resources Code Section 21081.6).

	Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
	A. EARTH			
A-1	Grading and excavation shall be conducted according to City of Merced standards to reduce the effects of disruptions, displacement, compactions, and over-covering of soils.	*Building Permits*	*City Inspection Services, Engineering, & Public Works*	
A-2	The Project applicants shall prepare grading plans for individual projects for review and approval by the City of Merced Inspection Services, Engineering, and Public Works Departments prior to approval of building permits. The grading plans shall include the nature and extent of work proposed, phasing, and minimize the effects of disruptions, displacement, compaction, and over-covering of soils.	*Building Permits*	*City Inspection Services, Engineering, & Public Works*	
A-3	Prior to approval of any improvement or building plans, the City shall review plans for drainage and storm water run-off control systems and their component facilities, as required, to ensure that these systems are non-erosive in design.	*Tentative Map* *Building Permit*	*City Engineering & Public Works*	

	Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
A-4	Upon completion of construction, subsequent Projects shall re-vegetate all exposed soil surfaces within 30 days, or as otherwise approved by the City, to minimize potential topsoil erosion. Reasonable alternatives to re-vegetation may be employed, especially during peak high temperature periods, subject to the approval of the City.	*Certificate of Occupancy*	*City Inspection Services*	
A-5	Projects under review shall be required to submit temporary erosion control plans for construction activities.	*Building Permits*	*City Inspection Services*	
A-6	Prior to the issuance of a building permit, the applicant shall design all structures according to the Uniform Building Code Seismic Section 3.	*Building permits*	*City Inspection Services*	
A-7	A soils report shall be prepared by a qualified soils or civil engineer, consistent with the provisions of the State Subdivision Map Act, prior to approval of a final subdivision map or building permit, if applicable as required by Merced Municipal Code.	*Final Maps*	*City Engineering & Public Works*	
A-8	Building plans shall be reviewed by a registered engineer specializing in geo-technical assessments to ensure that the soils can support the load.	*Building Permits*	*City Inspection Services, Engineering, & Public Works*	
	B. AIR			
B-1	All active portions of construction sites, earthen access roads, and material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering shall occur at least twice a day with complete coverage, preferably in the late morning and after work is done for the day. Where feasible, reclaimed water shall be used.	*Building Permits*	*City Inspection Services*	
B-2	All clearing, grading, earth moving, or excavation activities shall cease during periods of winds greater than 20 miles per hour averaged over one hour.	*Building Permits*	*City Inspection Services*	
B-3	All material transported off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.	*Building Permits*	*City Inspection Services*	
B-4	The area disturbed by clearing, earth moving, or excavation activities shall be minimized at all times. This can be accomplished by mowing instead of disking for weed control and seeding and watering inactive portions of the construction site until grass is evident, if construction time frames warrant.	*Building Permits*	*City Inspection Services*	

Mitigation Measure		*Timing*	*Agency or Department Consultation*	*City Verification (date and initials)*
B-5	Construction site vehicle speeds shall be limited to 15 miles per hour.	*Building Permits*	*City Inspection Services*	
B-6	If used, petroleum-based dust palliatives shall meet the road oil requirements of the District's rule regarding Cutback Asphalt Paving Materials.	*Building Permits*	*SJVUAPCD*	
B-7	Streets adjacent to the Project site shall be swept as needed to remove silt and/or mud that may have accumulated from construction activities. The streets are required to be wet prior to or in conjunction with rotary sweeping.	*Building Permits*	*City Inspection Services*	
B-8	All internal combustion engine-driven equipment shall be properly maintained and well tuned according to the manufacturer's specifications.	*Building Permits*	*City Inspection Services*	
B-9	When reasonably available and economically feasible, diesel powered or electric equipment shall be utilized in lieu of gasoline powered engines.	*Building Permits*	*City Inspection Services*	
B-10	Construction activities shall minimize obstruction of through traffic lanes adjacent to the site and a flag person shall be retained to maintain safety adjacent to existing roadways.	*Building Permits*	*City Inspection Services*	
B-11	Prior to issuance of a grading permit, the project will be required to comply with District Regulation VIII. Specifically, the rules that apply to this project are: Rule 8010 (Administrative Requirements) and Rule 8020 (Construction, Demolition, Excavation, and Extraction Activities). Additional rules that may apply to this project depending on construction practices employed are: Rule 8030 (Handling and Storage of Bulk Materials), Rule 8060 (Paved and Unpaved Roads), and Rule 8070 (Parking , Shipping, Receiving, Transfer, Fueling, and Service Areas).	*Building Permits*	*SJVUAPCD*	
B-12	At the City Planner's discretion, subsequent projects within the Project boundaries may be required to submit an air quality analysis to the City prior to construction. Such studies shall outline any impacts associated with specific processes or activities to be present on-site.	*Site Plan Approval*	*City Planning*	
(B-13) (General Plan 1-d) Development construction activity shall implement appropriate dust (PM10) suppression techniques as required by the SJVRAPCD.		*Building Permit/Construction*	*City Inspection Services*	

Mitigation Measure	*Timing*	*Agency or Department Consultation*	*City Verification (date and initials)*
C. WATER			
C-1 Prior to approval of a Final Map or subsequent development projects, the applicant shall demonstrate to the City that storm drainage facilities are adequate to meet Project demands and that improvements are consistent with the *Merced County Critical Area Flooding and Drainage Plan* and any updates.	*Tentative Maps*	*City Engineering & Public Works*	
C-2 Prior to alteration or removal of the existing elevated YVRR roadbed in the eastern portion of the project area, the property owner shall demonstrate, through competent analysis acceptable to the City of Merced, what effect removal of the roadbed will have on area flood waters delineated in the Special Flood Hazard Area identified on the east side of the roadbed, including impacts to other properties.	*Tentative Maps* *Building Permits* *Conditional Use Permits/Site Plan Approvals*	*City Engineering & Public Works*	
C-3 Prior to approval of subsequent development projects, the applicants shall demonstrate to the City that temporary erosion control measures will be followed during construction.	*Building Permits*	*City Inspection Services*	
C-4 As individual projects are determined, the applicants shall provide detailed information to the City regarding projected water usage. The applicants shall provide all water system needs (including wells, water mains, etc.) for individual projects or pay equivalent fees to insure the construction of the necessary water infrastructure.	*Building Permits/ Parcel Maps*	*City Engineering & Public Works*	
C-5 Industrial users shall recycle their own water if feasible and implement water conservation measures and techniques as determined for individual projects.	*Building Permits*	*City Engineering & Public Works*	
C-6 Areas within 100-year flood plains will be required to comply with all pertinent provisions of the City's Flood Damage Prevention Ordinance (MMC 17.48) and all updates. (C-7) (General Plan 2-a) When site-specific development proposals with direct discharge into the area's surface water system are submitted to the City for review and action, Best Management options should be evaluated to determine need and feasibility.	*Building Permits* *Subdivision maps/Parcel maps/ Building permits*	*City Inspection Services & Engineering Engineering*	
(C-8) (General Plan 2-b) Water conservation policy of the City should be periodically reviewed to determine need, appropri- ateness, and feasibility of implementing conservation practices suggested in the Merced Water Supply Plan.	*Subdivision maps/Parcelmaps/ Conditional Use Permits*	*Engineering/Public Works/ City Planning*	

	Mitigation Measure	*Timing*	*Agency or Department Consultation*	*City Verification (date and initials)*
	E. ANIMAL LIFE			
E-1	If any future development takes place during the Swainson's Hawk nesting season (late March through July), a pre-construction survey should be conducted by a qualified biologist to determine whether nesting activities are taking place within appropriate portions of the project area covered by this species assessment (Appendix A) (Fahrens Creek corridor from the west edge of "R" Street to the north edge of Yosemite Avenue).	*Final Maps* *Building Permits*	*City Planning* *CA Dept of Fish & Game*	
E-2	With regard to the Giant Garter Snake, for any development taking place in proximity to the Fahrens Creek corridor, from the west edge of "R" Street to the north edge of Yosemite Avenu: a) provide environmental awareness training to contractors doing work in this area; b) restrict construction along the Creek to only the snake's active season (May 1 through September 30); and c) have a qualified biologist conduct pre-construction surveys 24 hours in advance of construction activities.	*Final Maps* *Building Permits*	*City Planning* *CA Dept of Fish & Game*	
	F. NOISE			
F-1	A 6 foot or higher sound wall or earthen berm (or combination of both), or some other acceptable method for achieving comparable noise reduction, may need to be constructed to meet the City's outdoor noise level standards of DNL 60dB for new residential development adjacent to perimeter arterials (Yosemite Avenue and "R" Street). Depending upon the DNLs and the acoustical shielding provided by the first row of buildings (if any), existing and new residential development located a greater distance from the perimeter arterials may require lower sound walls or a combination of sound attenuation measures. As an alternative to sound walls, new dwelling units may be oriented so that the outdoor use areas would be shielded by the building. As necessary detailed noise projections should be prepared to corroborate earlier noise studies/projections and actual height requirements for sound walls, prior to recordation of final maps for each phase of residential development falling within applicable noise zones.	*Final Maps* *Building Permits*	*City Planning*	

Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
F-2 Project residential developments constructed within pertinent noise zones in proximity to Yosemite Avenue and "R" Street would require sound-rated windows, as well as sound-rated exterior wall assemblies where necessary, or other acceptable methods of sound attenuation to achieve comparable noise reductions, to be consistent with the 45 dB interior noise level maximum.	*Final Maps* *Building Permits*	*City Planning*	
F-3 Trucks used for the development of Fahrens Creek will be required to use the City's designated truck routes, to be demonstrated by the project applicant through the submittal of a construction traffic plan to the City Engineer prior to the issuance of grading permits.		*City Planning* *City Inspection Services*	
F-4 All construction activity shall be conducted in accordance with City of Merced standards for times of operation.	*Building Permits*	*City Inspection Services*	
F-5 Grading and construction activity shall be limited to daylight hours(between 7 a.m. and 7 p.m.) in areas where noise sensitive receptors are located.	*Building Permits*	*City Inspection Services*	
F-6 In noise sensitive areas, construction equipment, compressors, and generators shall be fitted with heavy duty mufflers specifically designed to reduce noise impacts.	*Building Permits*	*City Inspection Services*	

Mitigation Measure	*Timing*	*Agency or Department Consultation*	*City Verification (date and initials)*
G. LIGHT AND GLARE			
G-1 The applicants shall utilize lighting fixtures of minimal wattage necessary to provide adequate lighting for security, industrial operations, and circulation. Light spill shall be controlled by baffles, cut-off lenses, and fixture height necessary to minimize spill-over onto adjacent properties. Prior to building permit approvals, lighting plans shall be submitted for review by the City which specifies lighting type, location, and methods for minimizing spill.	*Building Permits*	*City Planning*	
M. TRANSPORTATION /CIRCULATION			
M-1 The Project shall pay all fees as required under the City's Public Facilities Impact Fees (Chapter 17.62 of the Merced Municipal Code).	Certificate of Occupancy	City Planning & City Engineer	
M-2 The developer shall construct all collector, local, or cul-de-sac streets within the Project boundaries to their ultimate right-of-way with full frontage improvements as defined by the City of Merced Standard Designs for all Engineering Structures and the Merced Vision 2015 General Plan and any amendments thereto. This will include its proportional share of the proposed Reverse Frontage Road North-South Collector to be located along the west boundary of AREA A/east boundary of AREA B (and, if included, along the east boundary of AREA C), and any new interior streets within the Project boundaries. The timing of construction of the improvements is to be governed by the Subdivision Map Act and/or local ordinance.	Tentative Maps/ Parcel Maps/ Site Plan Reviews	City Planning & Engineering	
M-3 The developer shall dedicate half the required right-of-way for all arterial and higher order streets adjacent to the Project boundaries as defined in the *Merced Vision 2015 General Plan*. This includes both Yosemite Avenue and "R" Street (each adjacent to AREA A), as well as Highway 59 (currently several design concepts are under study/evaluation by Caltrans) adjacent to AREA B (and, if included, AREA C). Consistent with Mitigation Measure 7.b of the Merced Vision 2015 General Plan EIR, where the extent of right-of-way dedication exceeds the City's development standards for a collector street (currently 74 feet for a collector street located entirely within the Project and 37 feet for a collector abutting the Project), then the developer is eligible for reimbursements in accordance with the City's Public Facilities Impact Fee Ordinance and guidelines, unless a traffic study determines that the Project's traffic impacts require additional dedication.	Tentative Maps/Site Plan Reviews	City Planning & Engineering	

Mitigation Measure	*Timing*	*Agency or Department Consultation*	*City Verification (date and initials)*
M-4 The developer shall construct the "collector equivalent" (74 feet) portion of the right-of-way, along with full frontage improvements along the Project boundaries and at least one travel lane in each direction, for all arterial and higher order streets within the Project boundaries. Consistent with Mitigation Measure 7.b of the Merced Vision 2015 General Plan EIR, where the extent of street improvements exceeds one-half of a "collector equivalent" street for a project fronting only one side of the street, the project is eligible for reimbursement for the cost of improvements exceeding the one-half "collector equivalent" in accordance with the City's Public Facilities Impact Fee Ordinance and guidelines, unless a traffic study determines that the Project's traffic impacts require additional improvements.	Tentative Maps/ Parcel Maps/ Site Plan Reviews	City Planning & Engineering	
M-5 The owner of each adjacent corner within AREA A shall be responsible for one-quarter of the cost of a traffic signal, to City standards and the satisfaction of the City Engineer, at each quarter mile/half-mile collector intersection with Yosemite Avenue, as well as the intersection of Lehigh Drive (extended) with "R" Street, whenever warrants are met in the judgment of the City Engineer. In such a case, installation of an intersection traffic signal by one developer could even be required at any of these locations by the City Engineer prior to full build-out and adjacent properties, if warrants are met, subject to adopted reimbursement requirements. Security shall be determined at the time of first subdivision map or other discretionary action.	Tentative Maps/ Parcel Maps/ Site Plan Reviews	City Planning & Engineering	
(M-6) (General Plan 7a) Appropriate traffic studies shall be prepared for all development projects which can be expected to reduce a road segment or intersection level of service below "D." (Note: Studies are not anticipated, based upon current projections, but could be required in the event of furture changes).	Subdivision Map/ Conditional Use Permit	Engineering	
(M-7) (General Plan 7b) The City shall require all development proposals to contribute, based on their proportionate share of impact, to circulation system improvements necessary to maintain at least a level of service "D" on all road segments and intersections impacted by the development project.	Subdivision Map/ Conditional Use Permit	Engineering/Planning/ Finance	

N. PUBLIC SERVICES			
FIRE			
N-1 The applicants shall be required to provide a level of accessibility and rangeland management (firebreaks and/or disking) for fire suppression that is acceptable to the City of Merced.	Tentative Maps/ Parcel Maps Building Permits	City Planning & Fire	
SCHOOLS			
N-2 Careful coordination is required between City, developer(s), and School District regarding phasing of infrastructure improvements within the general area, to achieve safe, adequate access for both school construction and operation.	Tentative Maps/ Parcel Maps Building Permits	Planning staff, City Engineer, and City School District	
N-3 Prior to the issuance of building permits, the applicant shall be responsible for the payment of school facility impact fees as adopted by the Merced City School District and Merced Union High School District.	Building Permits	City School District and MUHSD	
(N-4) (General Plan 8-c) Site designs will need to be reviewed to assure that development does not hinder efficient and cost-effective public services delivery.	Tentative Maps/ Parcel Maps/ Conditional Use Permits	Planning staff, City Engineer, and City School District	
(N-5) (General Plan 8-d) Development projects will be required to pay public facilities impact fees as established by the City in accordance with the requirements of State law.	Building Permit	Planning Staff/ Finance	

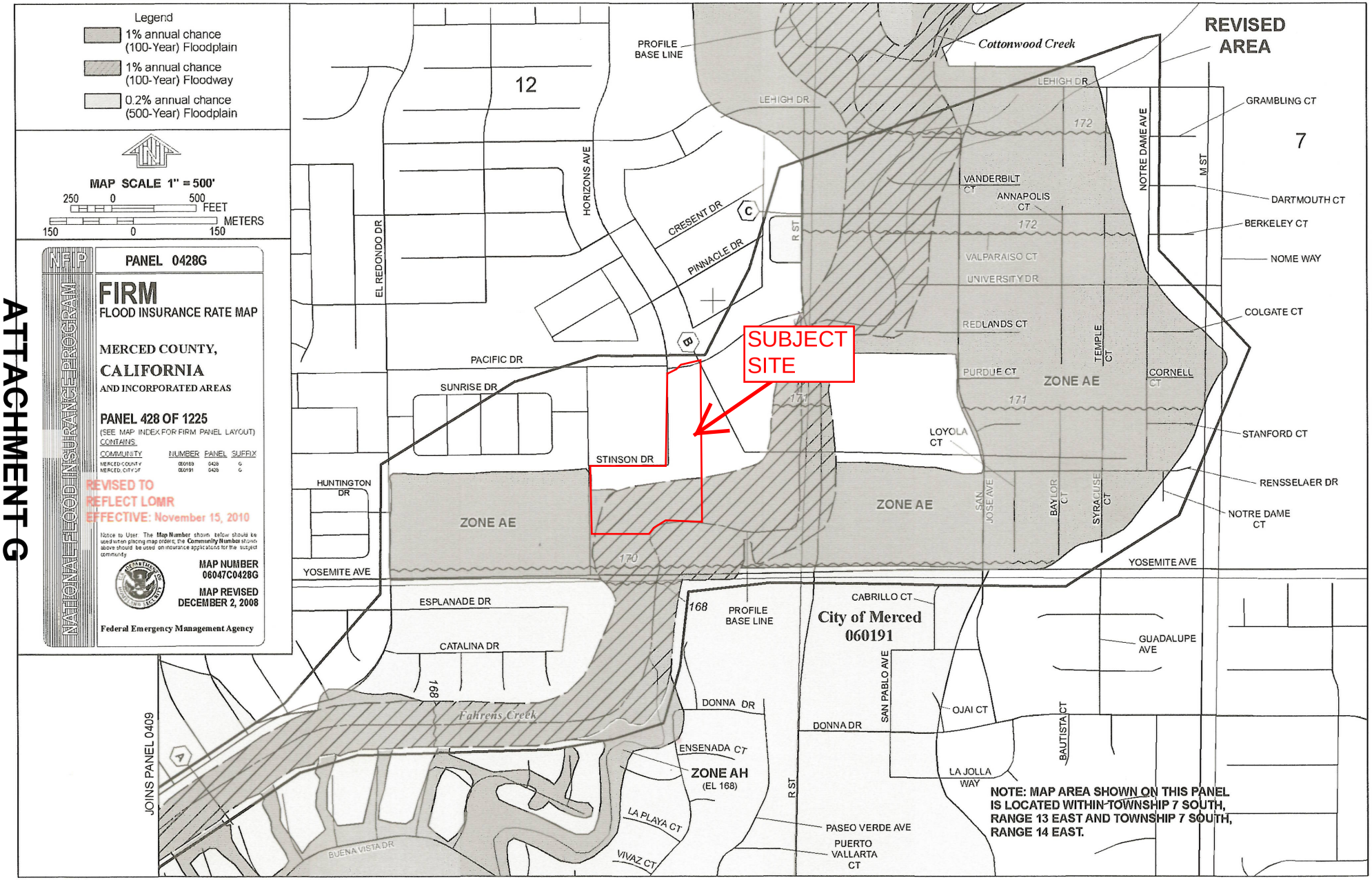
Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
T. CULTURAL RESOURCES			
T-1 If evidence of archaeological artifacts is discovered during construction, all operations within an area at and adjacent to the discovered site shall halt until a qualified archaeologist determines the extent of significance of the site.	*Building Permits*	*City Inspection Services*	
T-2 On-site preservation of a resource is the preferred alternative. Preserving a cultural deposit maintains the artifacts in context and may prevent inadvertent discovery of, or damage to, human burials. Preservation may be accomplished through a number of means such as capping or covering the site with a layer of soil, fencing the site area, and/or incorporation of the resource in a park area.	*Building Permits*	*City Inspection Services*	

Wildlife Observed during the May 16, 2001 Field Survey
of the Fahrens Creek Development Project
City of Merced, California

Common Name	Scientific Name
Mammals	
Black-tailed jackrabbit	*Lepus californicus*
California ground squirrel	*Spermophilus beecheyi*
Birds	
Turkey vulture	*Cathartes aura*
Cooper's hawk	*Accipiter cooperii*
Red-tailed hawk	*Buteo jamaicensis*
Red-shouldered hawk	*Buteo lineatus*
Swainson's hawk	*Buteo swainsoni*
Mourning dove	*Zenaida macroura*
Western kingbird	*Tyrannus verticalis*
Ash-throated flycatcher	*Myiarchus cinerascens*
Black phoebe	*Sayornis nigricans*
Western scrub-jay	*Aphelocoma californica*
American crow	*Corvus brachyrhynchos*
Tree swallow	*Tachycineta bicolor*
Northern mockingbird	*Mimus polyglottos*
European starling	*Sturnus vulgaris*
Red-winged blackbird	*Agelaius phoeniceus*
Brewer's blackbird	*Euphagus cyanocephalus*
Northern oriole	*Icterus galbula*
Western meadowlark	*Sturnella neglecta*
House finch	*Carpodacus mexicanus*
Amphibians	
Bullfrog	*Rana catesbeiana*
Fish	
Mosquitofish	*Gambusia affinis*
Common carp	*Cyprinus carpio*

ATTACHMENT F

ATTACHMENT G




WILDCAT
BLACKBERRY
TWILIGHT
CRESCENT
SOLSTICE
ST TROPEZ
ORION
CLEMSON
Neighborhood Park
PINNACLE
SUNLIGHT
SUNUP
EARLYLIGHT
DAYBREAK
PACIFIC
SUNRISE
LARKSPUR
MAEB
HORIZONS
Bike Path
BRIGHTDAY
COMPASS POINTE
STINSON
SUBJECT SITE
City Dog Park
YOSEMITE
ESPLANADE
CATALINA
CLEARWATER
CLARO
MAZATLAN
DONNA
PASEO VERDE
DONNA
ENSENADA
ATTACHMENT H

Greenhouse Gas Study for Compass Pointe Phase Two

December 18, 2014

Prepared by:

Rincon Consultants, Inc.
Environmental Scientists Planners Engineers
www.rinconconsultants.com

ATTACHMENT I

Greenhouse Gas Study for Compass Pointe Phase Two

Table of Contents

Page

List of Tables

Appendix

1.0 INTRODUCTION

This report is a greenhouse gas (GHG) emissions study for the proposed Compass Pointe Phase Two project in the City of Merced, California. The report was prepared by Rincon Consultants, Inc. under contract to Steiner Development, Inc. The purpose of this study is to evaluate whether the expected GHG emissions generated from construction and operation of the proposed project have the potential to cause significant environmental impacts. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.).

2.0 PROJECT DESCRIPTION

The proposed Compass Pointe Phase Two project involves the development of a residential apartment complex on a 10.4 acre parcel (APN 206-070-006) located east of Compass Pointe Avenue and south of Pacific Drive in the City of Merced.[1] The proposed project includes 17 two-story residential buildings with eight living units per building (total building area of 69,892 square feet), a 2,500 square foot community building, 228 parking spaces, and landscaping.

The proposed project includes a number of design features that will reduce GHG emissions. The project will include on-site solar photovoltaics that will generate approximately 20% of the electricity used by the project, high efficiency lighting, bicycle parking, pedestrian access and walkways, low-flow plumbing fixtures, and water-efficient irrigation systems. The amount of area covered by turf will be reduced by approximately 10% and 33 trees will be planted on-site. In addition, the project site is located approximately a quarter-mile from a CatTracks bus stop, adjacent to the Black Rascal Creek multi-use trail, and less than a mile from Merced College.

The project site is relatively flat and currently undeveloped. Project construction would involve site preparation, minor grading, paving, building construction, and architectural coating. Project construction is estimated to last approximately one year, with operation beginning in the second half of 2016.

3.0 SETTING

3.1 Environmental Setting

Greenhouse Gases and Climate Change. Climate change refers to any change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to the accumulation of GHGs in the atmosphere.

[1] The project site size is 10.4 acres; however, only roughly 6.2 acres are buildable due to the floodway in the southern portion of the parcel.

Greenhouse gases, or GHGs, trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs, such as carbon dioxide (CO_2), occur naturally and are emitted to the atmosphere through both natural processes and human activities. Other GHGs (e.g., fluorinated gases) are created and emitted solely through human activities. According to the United Nations Intergovernmental Panel on Climate Change (IPCC), there is high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming (by approximately 1.4°F) since the mid-20th century (IPCC, 2013).
The principal GHGs that enter the atmosphere as a result of human activities include:

- **Carbon dioxide (CO_2)** is primarily generated by fossil fuel (e.g., oil, natural gas, and coal) combustion from stationary and mobile sources. Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH_4)** emissions result from the decomposition of organic waste in landfills and livestock enteric fermentation. CH_4 is also emitted during the production and transport of coal, natural gas, and oil.
- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
- **Fluorinated gases** (i.e., hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) are emitted from a variety of industrial processes, such as aluminum and semiconductor manufacturing. Hydrofluorocarbons are used as refrigerants, aerosol propellants, solvents, and fire retardants and are released into the atmosphere through leaks, servicing, and disposal of equipment in which they are used. These gases are typically emitted in smaller quantities but are generally very strong GHGs.

Each of the GHGs listed above differs in its ability to absorb heat in the atmosphere, or in its Global Warming Potential (GWP) over a 100 year period. GHGs are compared in terms of their respective intensity factor per molecule given an atmospheric lifetime of 100 years. The IPCC defines the intensity factor of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of "carbon dioxide equivalent" (CO_2E), which compares the gas in question to that of the same mass of CO_2 (CO_2 has an intensity factor of one by definition).

State and Local GHG Emissions Levels. In 2012, California produced 459 million metric tons (MMT) CO_2E (California Air Resources Board [ARB], 2014). The transportation sector was the largest source of emissions, accounting for approximately 37 percent of the total emissions. The industrial sector accounted for approximately 22 percent of the total emissions. The ARB has projected statewide unregulated GHG emissions for the year 2020 will be 507 MMT CO_2E (ARB, August 2013). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

According to the City of Merced *2011 Inventory of Community and Government Operations GHG Emissions* (2014), the community as a whole emitted 505,579 metric tons (MT) CO_2E in 2011 resulting from transportation, commercial/industrial and residential energy use, solid waste generation, and other processes/fugitive emissions. The largest source of emissions was the transportation sector, which contributed to 42 percent of total emissions. Activities in the commercial/industrial and residential sectors resulted in the second and third greatest emissions (32 percent and 21 percent respectively).

Potential Effects of Climate Change. According to the California Environmental Protection Agency's (CalEPA) *2010 Climate Action Team Biennial Report*, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, loss of ecosystems and species, and more drought years. While there is growing scientific consensus about the possible effects of climate change at a global and potentially statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. However, the *City of Merced Climate Action Plan* (2012) lists higher temperatures, flooding, and drought as the major potential climate hazards that may be exacerbated by climate change.

3.2 Regulatory Setting

State of California. In recent years, the State of California has enacted several laws to address the potential effects of increasing atmospheric concentrations of GHG emissions. In 2006, the State signed into law the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32, codified at Section 1, Division 25.5, Section 38500 et seq. of the California Health & Safety Code). This law sets a target to reduce statewide GHG emissions to 1990 levels (426.6 MMT CO_2E) by 2020 and represents California's fair share contribution toward stabilizing global warming. AB 32 also required the ARB to design and implement a plan identifying strategies and regulations to meet the statewide target. The resulting *Climate Change Scoping Plan* (2008 Scoping Plan), adopted in 2008, estimated that GHG emissions in the state need to be reduced by approximately 29 percent below 2020 "business-as-usual" (BAU) forecasted emissions (596 MMT CO_2E), or 15 percent below the GHG emissions levels at the time the 2008 Scoping Plan was prepared.[2] Key elements of the plan include:

- Adopting and implementing measures pursuant to existing state laws and policies, including California's goods movement measures, Clean Car Standards (Pavley Standard) and the Low Carbon Fuel Standard;
- Expanding energy efficiency and green building practices;
- Achieving a statewide renewables energy mix of 33 percent (Renewable Portfolio Standard);
- Reducing methane emissions from landfills;
- Developing a California cap-and-trade program;
- Targets for transportation-related GHG emissions;
- Increasing solid waste diversion; and
- Strengthening water efficiency programs.

In 2011, the ARB updated the 2020 forecast to account for new estimates for future fuel and energy demand as well as other factors. The updated forecast projects statewide BAU emissions to be 506.8 MMT CO_2E in 2020. Considering the updated BAU forecast of 506.8 MMT CO_2E, the ARB now estimates a 16 percent reduction below the estimated statewide BAU levels would now be necessary to return to 1990 emission levels (i.e., 426.6 MMT CO_2E) by 2020, instead of the 29 percent BAU reduction previously reported under the 2008 Scoping Plan (ARB, August 2013).

[2] The ARB's "business-as-usual," or BAU, forecast provides an estimate of the future GHG emissions expected to occur if none of the foreseeable measures included in the 2008 Scoping Plan are implemented. The base years used to forecast BAU emissions for the 2008 Scoping Plan was the average of statewide emissions in 2002, 2003, and 2004. BAU forecasted emissions were estimated to reach 596 MMT CO_2E in 2020.

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in CEQA documents. In March 2010, the California Resources Agency adopted amendments to the *State CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted CEQA Guidelines provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

SJVAPCD. The SJVAPCD is the regional air quality management agency in the Central Valley and the agency with air permitting authority in the region. On December 17, 2009, the SJVAPCD adopted guidance for assessing and reducing the impacts of project-specific GHG emissions on global climate change: *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*. It also adopted the policy: *District Policy – Addressing GHG Emission Impacts for Stationary Source Projects under CEQA When Serving as the Lead Agency*. The SJVAPCD found that the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climatic change could be considered cumulatively considerable. The SJVAPCD further found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions consistent with the AB 32 target, whether through project design elements or mitigation. The guidance and policy allow a project to rely on the implementation of Best Performance Standards (BPS) as a method for streamlining the CEQA process of determining significance of GHG emissions. Projects not implementing BPS would be required to demonstrate that "project specific GHG emissions would be reduced or mitigated by at least 29 percent, compared to BAU, including GHG emission reductions achieved since the 2002-2004 baseline period. Projects achieving at least a 29 percent GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG" (SJVAPCD Guidance, 2009). The guidance does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project-related impacts on global climate change (SJVAPCD, 2009).

City of Merced. On June 6, 2012 the Merced City Council voted to include a GHG reduction target of 1990 levels by 2020, or 15 percent below 2008 levels by 2020, consistent with AB 32 in the City's *Climate Action Plan*.[3] In August 2012, the City of Merced approved its *Climate Action Plan* which provides guidance to meet the target and identifies over 150 potential ways to reduce GHG emissions and the community's influence on climate change. The City is in the process of developing a more detailed programmatic climate action plan that will qualify as a plan for the reduction of GHG emissions under CEQA Section 15183.5.

4.0 IMPACT ANALYSIS

4.1 Significance Thresholds and Methodology

Significance Thresholds. According to the CEQA Guidelines, impacts related to GHG emissions from a proposed project would be significant if the project would:

[3] The ARB Scoping Plan (2008) states that reducing GHG emissions to 1990 levels by 2020 is approximately the same as reducing "current" (2005-2008) emissions levels by 15 percent by 2020.

- *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;*[4] *and/or*
- *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases*.[5]

The vast majority of individual projects do not generate sufficient GHG emissions to, in isolation, create a direct impact on climate change. Rather it is the increased accumulation of GHGs from more than one project and many sources in the atmosphere that may result in global climate change, which can cause the adverse environmental effects previously discussed. Accordingly, the threshold of significance for GHG emissions determines whether a project's contribution to global climate change is "cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

The City of Merced has not developed or adopted a CEQA threshold for determining the significance GHG emissions at the project-level, and therefore has recommended the use of the SJVAPCD threshold (see discussion under Regulatory Setting above). Based on the SJVAPCD threshold, the proposed project would have a less than cumulatively significant impact if it achieves at least a 29 percent reduction in GHG emissions compared to BAU, consistent with the AB 32 Scoping Plan (2008).

Similar to the SJVAPCD threshold, the City's Climate Action Plan (2012) establishes a target to reduce GHG emissions to 1990 levels by 2020, consistent with the AB 32 target and 2008 Scoping Plan (see discussion under Regulatory Setting above). As such, if emissions from the proposed project fall below the SJVAPCD's 29 percent threshold, which according to the 2008 Scoping Plan is roughly equivalent to 1990 levels by 2020, the proposed project would be consistent with target identified in the City's Climate Action Plan, and result in a less than significant impact with regards to conflict with an applicable plan adopted for the purpose of reducing GHG emissions if it results in a 29 percent reduction in GHG emissions.

Methodology. GHG emissions associated with project construction and operations were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2. The model was developed in collaboration with and supported by the air districts of California, including the SJVAPCD. The model quantifies direct emissions from project construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. Where project-specific inputs were not available, default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) for Merced County was used to calculate GHG emissions associated with the project. Complete results from CalEEMod, as well as site-specific inputs and assumptions are included in the Appendix.

[4] Consistent with question considered for Merced General Plan EIR Impact #3.17-1.
[5] Consistent with question considered for Merced General Plan EIR Impact #3.17-2.

To determine whether the proposed Compass Pointe Phase Two project would result in a 29 percent reduction in BAU emissions, two emissions scenarios were calculated and compared, which include the following (see Appendix for additional detail):

1) **BAU Scenario** - is reflective of a realistic project scenario that would occur absent project design features and state regulations enacted as a result of AB 32, and is consistent with the SJVAPCD's and ARB's definition of BAU;[6] and
2) **Project Scenario** - is also reflective of a realistic project scenario, but accounts for voluntary project features and state regulations enacted as a result of AB 32. The state regulations accounted for in the Project Scenario include the Low Carbon Fuel Standard, the Pavley I Standard, Renewable Portfolio Standard, and Title 24 Energy Efficiency Building Standards. The project features accounted for in the Project Scenario include on-site renewable energy generation (solar), high efficiency lighting, low-flow fixtures, water-efficient irrigation systems, turf reduction, pedestrian access on-site and contiguous with the site, bicycle parking, and the project site's accessibility/distance to a bus stop, Merced College, and the Black Rascal Creek trail.

4.2 Impacts

Would the proposed project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

The proposed project would result in GHG emissions from both short-term construction activities and on-going operations. Construction of the proposed project would temporarily generate GHG emissions from the use of construction equipment and vehicle trips made by construction workers and delivery trucks that would travel to and from the project site. Under both the BAU Scenario and Project Scenario, project construction is estimated to generate 472.6 MT CO_2E total. To evaluate GHG emissions from project construction, however, construction emissions are amortized over the life of the project (approximately 30-years) and added to the operational emissions. As shown in Table 1, both the BAU Scenario and Project Scenario would generate approximately or 15.8 MT CO_2E per year when amortized over a 30-year period.

Operation of the proposed project would result in GHG emissions from the following primary sources: energy (electricity and natural gas used on-site), mobile (on-road mobile vehicle traffic generated by the project), solid waste disposal by the land use, water usage by the land use, and area sources (landscaping equipment). As shown in Table 1, operation of the project would generate 2,499.3 MT CO_2E per year under the BAU Scenario and 1,668.2 MT CO_2E per year under the Project Scenario (a difference of 811.1 MT CO_2E per year).

[6] The SJVAPCD and ARB define BAU as total baseline emissions for all emissions sources projected for the year 2020, assuming no change in GHG emissions per unit of activity (or carbon intensity) as established for the baseline period, 2002-2004. BAU does not account for the reduction in GHGs that would result from federal, state, or regional regulations for the reduction of emissions after 2002-2004 (SJVAPCD, 2009). As such, the BAU Scenario for the project uses mobile source operational emission factors from the year 2005 (CalEEMod does not provide data for any years between 2002 and 2004; 2005 was used and provides a more conservative estimate).

This difference in operational GHG emissions can be attributed to the voluntary project features (i.e., on-site solar energy, high efficiency lighting, low-flow fixtures, water-efficient landscaping systems, pedestrian access, bicycle parking, and destination accessibility), the Renewable Portfolio Standard, Title 24 Energy Efficiency Building Standards, Low Carbon Fuel Standard, and Pavley I Standard, which were applied to the Project Scenario.[7]

Table 1: Project-related GHG Emissions for BAU Scenario and Project Scenario

Source	GHG Emissions (MT CO_2E per Year)	
	BAU Scenario	Project Scenario
Construction Emissions		
Mobile (30-year amortization)	15.8	15.8
Construction Emissions Subtotal	***15.8***	***15.8***
Operational Emissions		
Area	1.7	1.7
Energy	440.0	334.8
Mobile	1,977.2	1,267.7
Solid Waste	28.4	28.4
Water	52.0	35.6
Operational Emissions Subtotal	***2,499.3***	***1,688.2***
Total GHG Emissions	**2,515.1**	**1,704.0**

As shown in Table 2, total emissions under the BAU Scenario would be 2,515.1 MT CO_2E per year and total emissions under the Project Scenario would be 1,704.0 MT CO_2E per year (a total difference of 811.1 MT CO_2E per year).

Table 2: Summary of Project Reduction from BAU Scenario

	GHG Emissions (MT CO_2E per Year)
BAU Scenario Total	2,515.1
Project Scenario Total	1,704.0
Difference Between BAU and Project Scenario	811.1
Percent Reduction from BAU Scenario	**32%**
SJVAPCD Threshold	**29%**
Project Meets or Exceeds Threshold (less-than-significant)	**Yes (Less-than-Significant)**

As discussed in Section 4.1 above, based on the SJVAPCD's recommended threshold, GHG emissions from the proposed project would be less than significant if the Project Scenario emissions are at least 29 percent below BAU Scenario emissions. As shown in Table 2, the Project Scenario would reduce BAU Scenario emissions by 811.1 MT CO_2E per year, or approximately 32 percent, which is greater than the 29 percent threshold. **Therefore, GHG emissions from the proposed project would be less than significant.**

[7] Voluntary project features would reduce GHG emissions by 269.7 MT CO_2E per year and account for 33.3 percent of the difference between the BAU and Project Scenario emissions. State regulations would reduce GHG emissions by 541.4 MT CO_2E and account for 67.7 percent of the difference between the BAU and Project Scenario emissions.

Would the proposed project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

As previously mentioned, AB 32 identifies a statewide target to reduce GHG emissions to 1990 levels by 2020, which is equivalent to "cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 15 percent from today's levels" (Scoping Plan, 2008). The City's Climate Action Plan (2012) also establishes a target to reduce GHG emissions 15 percent below 2008 levels, consistent with AB 32 and its Scoping Plan. Construction and operation of the proposed project with its identified design features would achieve a 32 percent reduction in GHG emissions compared to the BAU Scenario, which exceeds the target identified in the Scoping Plan and City's Climate Action Plan.

In addition, the proposed project would support many of the goals identified in the Climate Action Plan. The project would help reduce vehicle miles traveled by providing bicycle parking and pedestrian access and being located within a quarter mile of a transit stop, less than a mile from Merced College, and adjacent to the Black Rascal Creek multi-use trail. In addition, the project would facilitate energy conservation and renewable energy goals in the Climate Action Plan by installing on-site solar photovoltaic systems and high efficiency lighting. The proposed project would also facilitate water conservation through low-flow fixtures and water-efficient irrigation systems. **As such, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions and impacts would be less-than-significant.**

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APPENDIX TO GHG STUDY
AVAILABLE UPON REQUEST

NOTICE OF PUBLIC HEARING
FOR GENERAL PLAN AMENDMENT #14-04, REVISION #2 TO THE FAHRENS CREEK SPECIFIC PLAN, SITE UTILIZATION PLAN REVISION #4 TO PLANNED DEVELOPMENT (P-D) #46, AND NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION

A public hearing will be held by the Merced City Planning Commission on Wednesday, February 4, 2015, at 7:00 p.m., or as soon thereafter as may be heard in the City Council Chambers located at 678 W. 18th Street, Merced, CA, concerning General Plan Amendment #14-04, Revision #2 to the Fahrens Creek Specific Plan, and Site Utilization Plan Revision #4 to Planned Development (P-D) #46, initiated by Golden Valley Engineering, on behalf of Barbara Bruno, property owner. This application is a request to modify the designations of the General Plan, Fahrens Creek Specific Plan, and Site Utilization Plan for Planned Development (P-D) #46 for an approximately 10.42 acre parcel generally located at the southwest corner of Pacific Drive and Horizons Avenue. The requested changes include changing the General Plan designation for approximately 6.2 acres of the parcel from Low Density (LD) Residential to Village Residential (VR) and changing the designation within the Fahrens Creek Specific Plan and the Site Utilization Plan for Planned Development #46 for approximately 6.76 acres of the property from Low Density Residential to Multi-Family Residential. These changes would allow the construction of an apartment complex with 136 units on an approximately 6.42-acre portion of the property. The property is currently zoned Planned Development (P-D) #46; said property being more particularly described as: Parcel B as shown on that certain map entitled "Parcel Map for Mathew and Barbara Bruno.," recorded in Volume 95, Page 16 of Merced County Records; also known as Assessor's Parcel Number (APN): 206-070-006.

An environmental review checklist has been filed for this project, and a draft mitigated negative declaration has been prepared under the California Environmental Quality Act. A copy of this staff evaluation (Initial Study #14-26) is available for public inspection at the City of Merced Planning Department during regular business hours, at 678 West 18th Street, Merced, California. A copy of this document can also be purchased at the Planning Department for the price of reproduction.

All persons in favor of, opposed to, or in any manner interested in this request for a General Plan Amendment, Revision to the Fahrens Creek Specific Plan, and Site Utilization Plan Revision, are invited to attend this public hearing or forward written comments to the Director of Development Services, City of Merced, 678 West 18th Street, Merced, CA 95340. The public review period for the environmental determination begins on January 15, 2015, and ends on February 4, 2015. Please feel free to call the Planning Department at (209) 385-6858 for additional information. If you challenge the decision of the Planning Commission in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Merced at, or prior to, the public hearing.

After the Planning Commission makes its decision on this matter, the General Plan Amendment, Specific Plan Revision, and Site Utilization Plan Revision will also be considered at a public hearing before the City Council. A separate notice of that public hearing will also be given.

/s/ David Gonzalves

January 9, 2015

David Gonzalves,
Director of Development Services

ATTACHMENT J

NOTICE OF PUBLIC HEARING
FOR GENERAL PLAN AMENDMENT #14-04, REVISION #2 TO THE FAHRENS CREEK SPECIFIC PLAN, SITE UTILIZATION PLAN REVISION #4 TO PLANNED DEVELOPMENT (P-D) #46, AND NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION

A public hearing will be held by the Merced City Planning Commission on Wednesday, March 4, 2015, at 7:00 p.m., or as soon thereafter as may be heard in the City Council Chambers located at 678 W. 18th Street, Merced, CA, concerning General Plan Amendment #14-04, Revision #2 to the Fahrens Creek Specific Plan, and Site Utilization Plan Revision #4 to Planned Development (P-D) #46, initiated by Golden Valley Engineering, on behalf of Barbara Bruno, property owner. This application is a request to modify the designations of the General Plan, Fahrens Creek Specific Plan, and Site Utilization Plan for Planned Development (P-D) #46 for an approximately 10.42 acre parcel generally located at the southwest corner of Pacific Drive and Horizons Avenue. The requested changes include changing the General Plan designation for approximately 6.2 acres of the parcel from Low Density (LD) Residential to Village Residential (VR) and changing the designation within the Fahrens Creek Specific Plan and the Site Utilization Plan for Planned Development #46 for approximately 6.76 acres of the property from Low Density Residential to Multi-Family Residential. These changes would allow the construction of an apartment complex with 136 units on an approximately 6.42-acre portion of the property. The property is currently zoned Planned Development (P-D) #46; said property being more particularly described as: Parcel B as shown on that certain map entitled "Parcel Map for Mathew and Barbara Bruno.," recorded in Volume 95, Page 16 of Merced County Records; also known as Assessor's Parcel Number (APN): 206-070-006. (This item was originally scheduled for the February 4, 2015, Planning Commission meeting, but needed to be re-noticed to correct the environmental review document).

An environmental review checklist has been filed for this project, and a draft mitigated negative declaration has been prepared under the California Environmental Quality Act. A copy of this staff evaluation (Initial Study #14-26) is available for public inspection at the City of Merced Planning Department during regular business hours, at 678 West 18th Street, Merced, California. A copy of this document can also be purchased at the Planning Department for the price of reproduction.

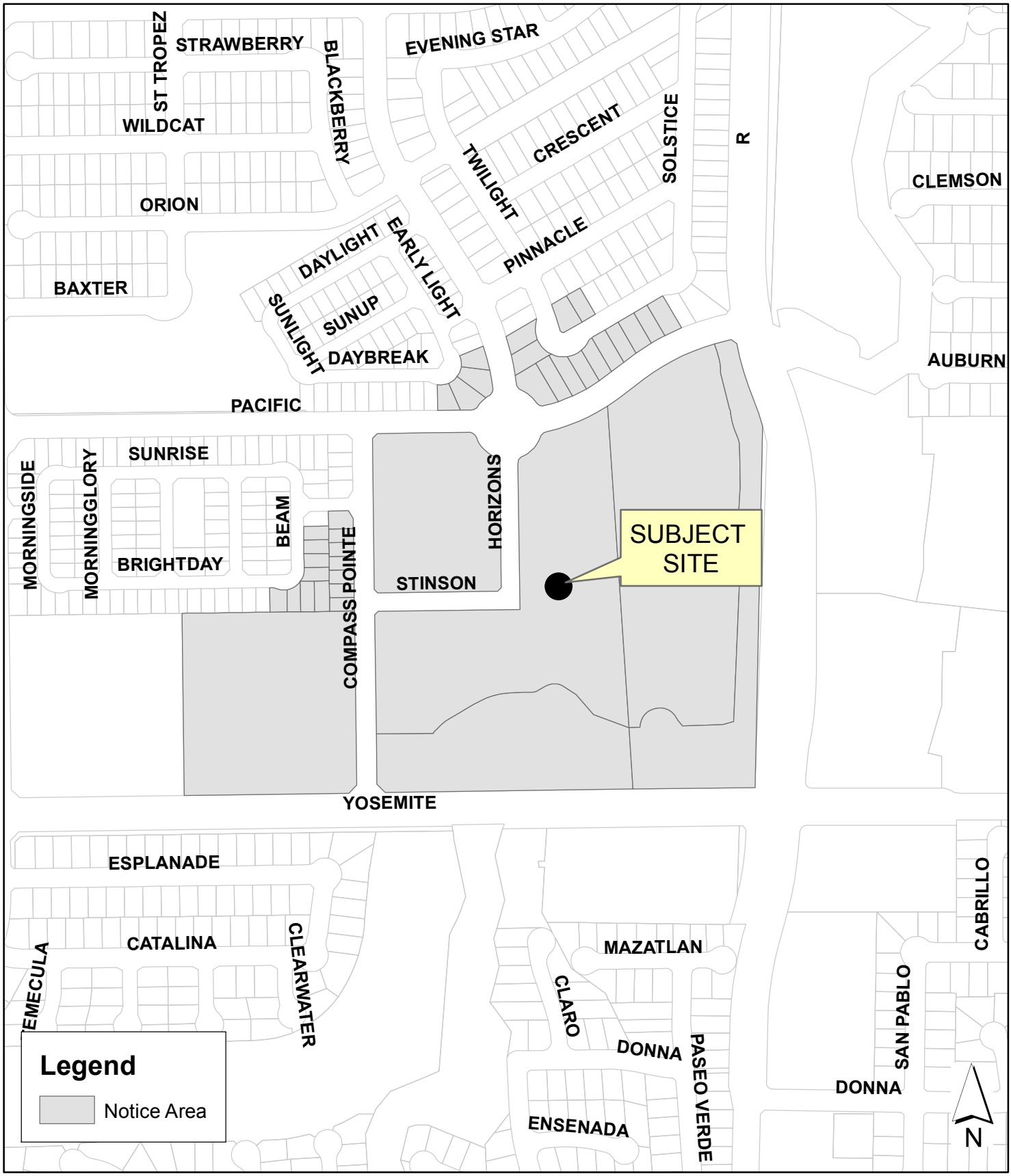
All persons in favor of, opposed to, or in any manner interested in this request for a General Plan Amendment, Revision to the Fahrens Creek Specific Plan, and Site Utilization Plan Revision, are invited to attend this public hearing or forward written comments to the Director of Development Services, City of Merced, 678 West 18th Street, Merced, CA 95340. The public review period for the environmental determination begins on February 12, 2015, and ends on March 4, 2015. Please feel free to call the Planning Department at (209) 385-6858 for additional information. If you challenge the decision of the Planning Commission in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Merced at, or prior to, the public hearing.

After the Planning Commission makes its decision on this matter, the General Plan Amendment, Specific Plan Revision, and Site Utilization Plan Revision will also be considered at a public hearing before the City Council. A separate notice of that public hearing will also be given.

/s/ Kim Espinosa

February 6, 2015

Kim Espinosa,
Planning Manager



General Plan Amendment #14-04/
Site Utilization Plan Revision #4 to
Planned Development (P-D) #46/
Revision to Fahrens Creek Specific Plan

ATTACHMENT K

ENVIRONMENTAL REVIEW #14-26
Mitigation Monitoring Program

MITIGATION MONITORING CONTENTS

This mitigation monitoring program includes a brief discussion of the legal basis and purpose of the mitigation monitoring program, a key to understanding the monitoring matrix, a discussion of noncompliance complaints, and the mitigation monitoring matrix itself.

LEGAL BASIS AND PURPOSE OF THE MITIGATION MONITORING PROGRAM

Public Resource Code (PRC) 21081.6 requires public agencies to adopt mitigation monitoring or reporting programs whenever certifying an environmental impact report or mitigated negative declaration. This requirement facilitates implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process.

The City of Merced has adopted its own "Mitigation Monitoring and Reporting Program" (MMC 19.28). The City's program was developed in accordance with the advisory publication, *Tracking CEQA Mitigation Measures*, from the Governor's Office of Planning and Research.

As required by MMC 19.28.050, the following findings are made:

1) The requirements of the adopted mitigation monitoring program for the General Plan Amendment #14-04, Revision #2 to the Fahrens Creek Specific Plan, and Site Utilization Plan Revision shall run with the real property. Successive owners, heirs, and assigns of this real property are bound to comply with all of the requirements of the adopted program.
2) Prior to any lease, sale, transfer, or conveyance of any portion of the subject real property, the applicant shall provide a copy of the adopted program to the prospective lessee, buyer, transferee, or one to whom the conveyance is made.

MITIGATION MONITORING PROCEDURES

In most cases, mitigation measures can be monitored through the City's construction plan approval/plan check process. When the approved project plans and specifications, with mitigation measures, are submitted to the City Development Services Department, a copy of the monitoring checklist will be attached to the submittal. The Mitigation Monitoring Checklist will be filled out upon project approval with mitigation measures required. As project plans and specifications are checked, compliance with each mitigation measure can be reviewed.

In instances where mitigation requires on-going monitoring, the Mitigation Monitoring Checklist will be used until monitoring is no longer necessary. The Development Services Department will be required to file periodic reports on how the implementation of various mitigation measures is progressing or is being maintained. Department staff may be required to conduct periodic inspections to assure compliance. In some instances, outside agencies and/or consultants may be required to conduct necessary periodic inspections as part of the mitigation monitoring program. Fees may be imposed per MMC 19.28.070 for the cost of implementing the monitoring program.

ATTACHMENT L

GENERAL PLAN MITIGATION MEASURES

As a second tier environmental document, Initial Study #14-26 incorporates some mitigation measures adopted as part of the *Merced Vision 2030 General Plan Program Environmental Impact Report* (SCH# 2008071069), as mitigation for potential impacts of the Project.

NONCOMPLIANCE COMPLAINTS

Any person or agency may file a complaint asserting noncompliance with the mitigation measures associated with the project. The complaint shall be directed to the Director of Development Services in written form providing specific information on the asserted violation. The Director of Development Services shall cause an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the Director of Development Services shall cause appropriate actions to remedy any violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue. Merced Municipal Code (MMC) Sections 19.28.080 and 19.28.090 outline the criminal penalties and civil and administrative remedies which may be incurred in the event of noncompliance. MMC 19.28.100 spells out the appeals procedures.

MONITORING MATRIX

The following pages provide a series of tables identifying the mitigation measures proposed specifically for General Plan Amendment #14-04, Revision #2 to the Fahrens Creek Specific Plan, and Site Utilization Plan Revision #4 to Planned Development (P-D) #46. The columns within the tables are defined as follows:

Mitigation Measure:	Describes the Mitigation Measure (referenced by number).
Timing:	Identifies at what point in time or phase of the project that the mitigation measure will be completed.
Agency/Department Consultation:	This column references any public agency or City department with which coordination is required to satisfy the identified mitigation.
Verification:	These columns will be initialed and dated by the individual designated to verify adherence to the project specific mitigation.

General Plan Amendment #14-04/Revision 32 to the Fahrens Creek Specific Plan/ Site Utilization Plan Revision #4 to Planned Development (P-D) #46 Mitigation Monitoring Checklist

Project Name:_____ **File Number:**_____
Approval Date:_____ **Project Location** _____
Brief Project Description_____

The following environmental mitigation measures were incorporated into the Conditions of Approval for this project in order to mitigate identified environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented, and fulfills the City of Merced's Mitigation Monitoring Requirements (MMC 19.28) with respect to Assembly Bill 3180 (Public Resources Code Section 21081.6).

C) Air Quality

Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
C-1	C-1) The project applicant shall submit an Indirect Source Review (ISR) to the San Joaquin Air Pollution Control Board in compliance with District Rule 9510 and shall comply with all other applicable District Rules. The San Joaquin Valley Air Pollution Control District recommends this application be submitted as early as possible or prior to the final discretionary approval.	Prior to Conditional Use Permit (CUP) approval	Planning Department	
C-1	C-2) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A)	Building Permit Issuance / CUP approval	Inspection Services / Planning Department	

Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
C-2	C-3) Compliance with Mitigation Measures C-1 and C-2 above would reduce this impact to a less than significant level.	Building Permit Issuance / CUP approval	Inspection Services / Planning Department	
D) Biological Resources				
Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
D1	D-1) If any development takes place during the Swainson's Hawk nesting season (late March through July), a pre-construction survey shall be conducted by a qualified biologist to determine whether nesting activities are taking place within the area. If it is found that nesting activities are taking place, the project shall take necessary actions, including delaying the start of construction, to ensure the species is not disturbed.	Building Permit	Planning Department CA. Dept. of Fish and Wildlife	
D1	D-2) With regard to the Giant Garter Snake, for any development taking place in proximity to Fahrens Creek corridor, from the west edge of R Street to the north edge of Yosemite Avenue the following actions shall be taken: a) Provide environmental awareness training to contractors doing work in this area; b) Restrict construction along the Creek to only the snake's active season (May 1 through September 30); and, c) Have a qualified biologist conduct pre-construction surveys 24 hours in advance of construction activities.	Building Permit	Planning Department CA. Dept. of Fish and Wildlife	

Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
D1	D-3) No development shall occur within 50 feet of the centerline of the creek (or 25 feet from the crown, whichever is greater).	Building Permit	Planning Department	
D1	D-4) The project shall comply with all applicable mitigation measures for Expanded Initial Study (EIS) #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09. Refer to the Mitigation Monitoring Program prepared for EIS #00-31 at Attachment A.	Building Permit	Planning Department	
D2	D-5) Compliance with Mitigation Measures D-1 through D-4 would reduce this impact to a less than significant level.	Building Permit	Planning Department	
D4	D-6) Compliance with Mitigation Measures D-1 through D-4 would reduce this impact to a less than significant level.	Building Permit	Planning Department	
D5	D-7) Compliance with Mitigation Measures D-1 through D-4 would reduce this impact to a less than significant level.	Building Permit	Planning Department	
E) Biological Resources				
Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
E1	E-1) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A).	Building Permit	Planning Department	
E2	E-2) Compliance with Mitigation Measure E-1 would make this impact less than significant.	Building Permit	Planning Department	

Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
E3	E-3) Compliance with Mitigation Measure E-1 would make this impact less than significant.	Building Permit	Planning Department	
E4	E-4) Compliance with Mitigation Measure E-1 would make this impact less than significant.	Building Permit	Planning Department	
F) Geology and Soils				
Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
F2	F-1) The project shall comply with all requirements of the State Water Resources Board (SWRCB) and obtain a General Construction Activity Stormwater Permit.	Building Permit	Inspection Services	
H) Hydrology and Water				
Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
H-1	H-1) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A).	Building Permit	Inspection Services / Planning Department / Engineering	
H-2	H-2) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A).	Building Permit	Inspection Services / Planning Department / Engineering	

Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
H-3	H-3) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A).	Building Permit	Inspection Services / Planning Department / Engineering	
H-4	H-4) The project developer shall provide calculations to the City Engineer verifying the capacity of the existing storm drain line as well as the capacity of the basin into which the water would ultimately drain.	Building Permit	Engineering	
H-4	H-5) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A).	Building Permit	Inspection Services / Planning Department / Engineering	
H-5	H-6) The project developer shall provide calculations to the City Engineer verifying the capacity of the existing storm drain line as well as the capacity of the basin into which the water would ultimately drain.	Building Permit	Engineering	
H-5	H-7) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A).	Building Permit	Inspection Services / Planning Department / Engineering	

Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
H-7	H-8) The project shall comply with all requirements of the California Building Code and the Federal Emergency Management Agency (FEMA). All necessary documentation related to the construction of the residential uses shall be provided at the building permit stage.	Building Permit	Inspection Services / Engineering	
H-7	H-9) At the time of submittal for a Conditional Use Permit (CUP), the developer shall provide a hydrology study demonstrating the effects of constructing a portion of the parking area within the flood way. This document shall be reviewed and approved by the Development Services Director.	Building Permit	Inspection Services / Planning Department / Engineering	
K) Noise				
Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
K-1	K-1) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A).	Building Permit	Inspection Services / Planning Department / Engineering	
K-2	K-2) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A).	Building Permit	Inspection Services / Planning Department / Engineering	

O. Transportation/Traffic				
Impact No.	***Mitigation Measures***	***Timing***	***Agency or Department***	***City Verification (date and initials)***
O-1	O-1) The project shall comply with all applicable mitigation measures for Expanded Initial Study #00-31 for Pending Annexation #00-03, Pre-zoning #00-03, and General Plan Amendment #00-09 (Attachment A).	Building Permit	Inspection Services / Planning Department / Engineering	

Certificate of Completion:
By signing below, the environmental coordinator confirms that the required mitigation measures have been implemented as evidenced by the Schedule of Tasks and Sign-Off Checklist, and that all direct and indirect costs have been paid. This act constitutes the issuance of a *Certificate of Completion*.

_____ _____
Environmental Coordinator Date

EXPANDED INITIAL STUDY #00-31
for
FAHRENS CREEK ANNEXATION
TO THE CITY OF MERCED

Appendix C
Mitigation Monitoring Program

ATTACHMENT A

MITIGATION MONITORING CONTENTS

This mitigation monitoring program includes a brief discussion of the legal basis and purpose of the mitigation monitoring program, a key to understanding the monitoring matrix, a discussion of noncompliance complaints, and the mitigation monitoring matrix itself.

LEGAL BASIS AND PURPOSE OF THE MITIGATION MONITORING PROGRAM

Public Resource Code (PRC) 21081.6 requires public agencies to adopt mitigation monitoring or reporting programs whenever certifying an environmental impact report or mitigated negative declaration. This requirement facilitates implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process.

The City of Merced has adopted its own "Mitigation Monitoring and Reporting Program" (MMC 19.28). The City's program was developed in accordance with the advisory publication, *Tracking CEQA Mitigation Measures*, from the Governor's Office of Planning and Research.

As required by MMC 19.28.050, the following findings are made:

1) The requirements of the adopted mitigation monitoring program for the Fahrens Creek Annexation shall run with the real property that is the subject of Annexation Application #00-31 to the City of Merced. Successive owners, heirs, and assigns of this real property are bound to comply with all of the requirements of the adopted program.
2) Prior to any lease, sale, transfer, or conveyance of any portion of the subject real property, the applicant shall provide a copy of the adopted program to the prospective lessee, buyer, transferee, or one to whom the conveyance is made.

MITIGATION MONITORING PROCEDURES

In most cases, mitigation measures can be monitored through the City's construction plan approval/plan check process. When the approved project plans and specifications, with mitigation measures, are submitted to the City Development Services Department, a copy of the monitoring checklist will be attached to the submittal. The Fahrens Creek Annexation Mitigation Monitoring Checklist will be filled out upon project approval with mitigation measures required. As project plans and specifications are checked, compliance with each mitigation measure can be reviewed.

In instances where mitigation requires on-going monitoring, the Mitigation Monitoring Checklist will be used until monitoring is no longer necessary. The Development Services Department will be required to file periodic reports on how the implementation of various mitigation measures is progressing or is being maintained. Department staff may be required to conduct periodic inspections to assure compliance. In some instances, outside agencies and/or consultants may be required to conduct necessary periodic inspections as part of the mitigation monitoring program. Fees may be imposed per MMC 19.28.070 for the cost of implementing the monitoring program.

Fahrens Creek Annexation to the City of Merced
Expanded Initial Study #00-31: Mitigation Monitoring Program (2)

General Plan Mitigation Measures

As a second tier environmental document, the *Expanded Initial Study for the Fahrens Creek Annexation to the City of Merced* incorporates some mitigation measures adopted as part of the *Merced Vision 2015 General Plan Program Environmental Impact Report* (SCH# 95082050), as mitigation for potential impacts of the Project. Therefore, following the Fahrens Creek Annexation Mitigation Monitoring Checklist (starting on page A-15) is a list of these relevant General Plan mitigation measures along with the General Plan Mitigation Monitoring Checklists (Forms A and B) to be used to verify that the General Plan mitigation measures have been met.

Noncompliance Complaints

Any person or agency may file a complaint asserting noncompliance with the mitigation measures associated with the project. The complaint shall be directed to the City Planner in written form providing specific information on the asserted violation. The City Planner shall cause an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the City Planner shall cause appropriate actions to remedy any violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue. Merced Municipal Code (MMC) Sections 19.28.080 and 19.28.090 outline the criminal penalties and civil and administrative remedies which may be incurred in the event of noncompliance. MMC 19.28.100 spells out the appeals procedures.

Monitoring Matrix

The following pages provide a series of tables identifying the mitigation measures proposed specifically for the Fahrens Creek Annexation. The columns within the tables are defined as follows:

Mitigation Measure: Summarizes the Mitigation Measure (referenced by number) identified in Expanded Initial Study #00-31.

Timing: Identifies at what point in time or phase of the project that the mitigation measure will be completed.

Agency/Department Consultation: This column references any public agency or City department with which coordination is required to satisfy the identified mitigation.

Verification: These columns will be initialed and dated by the individual designated to verify adherence to the project specific mitigation.

Fahrens Creek Annexation
Mitigation Monitoring Checklist

Project Name:_____
File Number:_____
Approval Date:_____
Project Location_

Brief Project Description _____

The following environmental mitigation measures were incorporated into the Conditions of Approval for this project in order to mitigate identified environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented, and fulfills the City of Merced's Mitigation Monitoring Requirements (MMC 19.28) with respect to Assembly Bill 3180 (Public Resources Code Section 21081.6).

	Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
	A. EARTH			
A-1	Grading and excavation shall be conducted according to City of Merced standards to reduce the effects of disruptions, displacement, compactions, and over-covering of soils.	*Building Permits*	*City Inspection Services, Engineering, & Public Works*	
A-2	The Project applicants shall prepare grading plans for individual projects for review and approval by the City of Merced Inspection Services, Engineering, and Public Works Departments prior to approval of building permits. The grading plans shall include the nature and extent of work proposed, phasing, and minimize the effects of disruptions, displacement, compaction, and over-covering of soils.	*Building Permits*	*City Inspection Services, Engineering, & Public Works*	
A-3	Prior to approval of any improvement or building plans, the City shall review plans for drainage and storm water run-off control systems and their component facilities, as required, to ensure that these systems are non-erosive in design.	*Tentative Map* *Building Permit*	*City Engineering & Public Works*	

	Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
A-4	Upon completion of construction, subsequent Projects shall re-vegetate all exposed soil surfaces within 30 days, or as otherwise approved by the City, to minimize potential topsoil erosion. Reasonable alternatives to re-vegetation may be employed, especially during peak high temperature periods, subject to the approval of the City.	*Certificate of Occupancy*	*City Inspection Services*	
A-5	Projects under review shall be required to submit temporary erosion control plans for construction activities.	*Building Permits*	*City Inspection Services*	
A-6	Prior to the issuance of a building permit, the applicant shall design all structures according to the Uniform Building Code Seismic Section 3.	*Building permits*	*City Inspection Services*	
A-7	A soils report shall be prepared by a qualified soils or civil engineer, consistent with the provisions of the State Subdivision Map Act, prior to approval of a final subdivision map or building permit, if applicable as required by Merced Municipal Code.	*Final Maps*	*City Engineering & Public Works*	
A-8	Building plans shall be reviewed by a registered engineer specializing in geo-technical assessments to ensure that the soils can support the load.	*Building Permits*	*City Inspection Services, Engineering, & Public Works*	
	B. AIR			
B-1	All active portions of construction sites, earthen access roads, and material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering shall occur at least twice a day with complete coverage, preferably in the late morning and after work is done for the day. Where feasible, reclaimed water shall be used.	*Building Permits*	*City Inspection Services*	
B-2	All clearing, grading, earth moving, or excavation activities shall cease during periods of winds greater than 20 miles per hour averaged over one hour.	*Building Permits*	*City Inspection Services*	
B-3	All material transported off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.	*Building Permits*	*City Inspection Services*	
B-4	The area disturbed by clearing, earth moving, or excavation activities shall be minimized at all times. This can be accomplished by mowing instead of disking for weed control and seeding and watering inactive portions of the construction site until grass is evident, if construction time frames warrant.	*Building Permits*	*City Inspection Services*	

	Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
B-5	Construction site vehicle speeds shall be limited to 15 miles per hour.	*Building Permits*	*City Inspection Services*	
B-6	If used, petroleum-based dust palliatives shall meet the road oil requirements of the District's rule regarding Cutback Asphalt Paving Materials.	*Building Permits*	*SJVUAPCD*	
B-7	Streets adjacent to the Project site shall be swept as needed to remove silt and/or mud that may have accumulated from construction activities. The streets are required to be wet prior to or in conjunction with rotary sweeping.	*Building Permits*	*City Inspection Services*	
B-8	All internal combustion engine-driven equipment shall be properly maintained and well tuned according to the manufacturer's specifications.	*Building Permits*	*City Inspection Services*	
B-9	When reasonably available and economically feasible, diesel powered or electric equipment shall be utilized in lieu of gasoline powered engines.	*Building Permits*	*City Inspection Services*	
B-10	Construction activities shall minimize obstruction of through traffic lanes adjacent to the site and a flag person shall be retained to maintain safety adjacent to existing roadways.	*Building Permits*	*City Inspection Services*	
B-11	Prior to issuance of a grading permit, the project will be required to comply with District Regulation VIII. Specifically, the rules that apply to this project are: Rule 8010 (Administrative Requirements) and Rule 8020 (Construction, Demolition, Excavation, and Extraction Activities). Additional rules that may apply to this project depending on construction practices employed are: Rule 8030 (Handling and Storage of Bulk Materials), Rule 8060 (Paved and Unpaved Roads), and Rule 8070 (Parking , Shipping, Receiving, Transfer, Fueling, and Service Areas).	*Building Permits*	*SJVUAPCD*	
B-12	At the City Planner's discretion, subsequent projects within the Project boundaries may be required to submit an air quality analysis to the City prior to construction. Such studies shall outline any impacts associated with specific processes or activities to be present on-site.	*Site Plan Approval*	*City Planning*	
(B-13)	(General Plan 1-d) Development construction activity shall implement appropriate dust (PM10) suppression techniques as required by the SJVRAPCD.	*Building Permit/Construction*	*City Inspection Services*	

Mitigation Measure	*Timing*	*Agency or Department Consultation*	*City Verification (date and initials)*
C. WATER			
C-1 Prior to approval of a Final Map or subsequent development projects, the applicant shall demonstrate to the City that storm drainage facilities are adequate to meet Project demands and that improvements are consistent with the *Merced County Critical Area Flooding and Drainage Plan* and any updates.	*Tentative Maps*	*City Engineering & Public Works*	
C-2 Prior to alteration or removal of the existing elevated YVRR roadbed in the eastern portion of the project area, the property owner shall demonstrate, through competent analysis acceptable to the City of Merced, what effect removal of the roadbed will have on area flood waters delineated in the Special Flood Hazard Area identified on the east side of the roadbed, including impacts to other properties.	*Tentative Maps* *Building Permits* *Conditional Use Permits/Site Plan Approvals*	*City Engineering & Public Works*	
C-3 Prior to approval of subsequent development projects, the applicants shall demonstrate to the City that temporary erosion control measures will be followed during construction.	*Building Permits*	*City Inspection Services*	
C-4 As individual projects are determined, the applicants shall provide detailed information to the City regarding projected water usage. The applicants shall provide all water system needs (including wells, water mains, etc.) for individual projects or pay equivalent fees to insure the construction of the necessary water infrastructure.	*Building Permits/ Parcel Maps*	*City Engineering & Public Works*	
C-5 Industrial users shall recycle their own water if feasible and implement water conservation measures and techniques as determined for individual projects.	*Building Permits*	*City Engineering & Public Works*	
C-6 Areas within 100-year flood plains will be required to comply with all pertinent provisions of the City's Flood Damage Prevention Ordinance (MMC 17.48) and all updates. (C-7) (General Plan 2-a) When site-specific development proposals with direct discharge into the area's surface water system are submitted to the City for review and action, Best Management options should be evaluated to determine need and feasibility.	*Building Permits* *Subdivision maps/Parcel maps/ Building permits*	*City Inspection Services & Engineering Engineering*	
(C-8) (General Plan 2-b) Water conservation policy of the City should be periodically reviewed to determine need, appropri- ateness, and feasibility of implementing conservation practices suggested in the Merced Water Supply Plan.	*Subdivision maps/Parcelmaps/ Conditional Use Permits*	*Engineering/Public Works/ City Planning*	

	Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
	E. ANIMAL LIFE			
E-1	If any future development takes place during the Swainson's Hawk nesting season (late March through July), a pre-construction survey should be conducted by a qualified biologist to determine whether nesting activities are taking place within appropriate portions of the project area covered by this species assessment (Appendix A) (Fahrens Creek corridor from the west edge of "R" Street to the north edge of Yosemite Avenue).	*Final Maps* *Building Permits*	*City Planning* *CA Dept of Fish & Game*	
E-2	With regard to the Giant Garter Snake, for any development taking place in proximity to the Fahrens Creek corridor, from the west edge of "R" Street to the north edge of Yosemite Avenu: a) provide environmental awareness training to contractors doing work in this area; b) restrict construction along the Creek to only the snake's active season (May 1 through September 30); and c) have a qualified biologist conduct pre-construction surveys 24 hours in advance of construction activities.	*Final Maps* *Building Permits*	*City Planning* *CA Dept of Fish & Game*	
	F. NOISE			
F-1	A 6 foot or higher sound wall or earthen berm (or combination of both), or some other acceptable method for achieving comparable noise reduction, may need to be constructed to meet the City's outdoor noise level standards of DNL 60dB for new residential development adjacent to perimeter arterials (Yosemite Avenue and "R" Street). Depending upon the DNLs and the acoustical shielding provided by the first row of buildings (if any), existing and new residential development located a greater distance from the perimeter arterials may require lower sound walls or a combination of sound attenuation measures. As an alternative to sound walls, new dwelling units may be oriented so that the outdoor use areas would be shielded by the building. As necessary detailed noise projections should be prepared to corroborate earlier noise studies/projections and actual height requirements for sound walls, prior to recordation of final maps for each phase of residential development falling within applicable noise zones.	*Final Maps* *Building Permits*	*City Planning*	

Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
F-2 Project residential developments constructed within pertinent noise zones in proximity to Yosemite Avenue and "R" Street would require sound-rated windows, as well as sound-rated exterior wall assemblies where necessary, or other acceptable methods of sound attenuation to achieve comparable noise reductions, to be consistent with the 45 dB interior noise level maximum.	*Final Maps* *Building Permits*	*City Planning*	
F-3 Trucks used for the development of Fahrens Creek will be required to use the City's designated truck routes, to be demonstrated by the project applicant through the submittal of a construction traffic plan to the City Engineer prior to the issuance of grading permits.		*City Planning* *City Inspection Services*	
F-4 All construction activity shall be conducted in accordance with City of Merced standards for times of operation.	*Building Permits*	*City Inspection Services*	
F-5 Grading and construction activity shall be limited to daylight hours(between 7 a.m. and 7 p.m.) in areas where noise sensitive receptors are located.	*Building Permits*	*City Inspection Services*	
F-6 In noise sensitive areas, construction equipment, compressors, and generators shall be fitted with heavy duty mufflers specifically designed to reduce noise impacts.	*Building Permits*	*City Inspection Services*	

	Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
	G. LIGHT AND GLARE			
G-1	The applicants shall utilize lighting fixtures of minimal wattage necessary to provide adequate lighting for security, industrial operations, and circulation. Light spill shall be controlled by baffles, cut-off lenses, and fixture height necessary to minimize spill-over onto adjacent properties. Prior to building permit approvals, lighting plans shall be submitted for review by the City which specifies lighting type, location, and methods for minimizing spill.	*Building Permits*	*City Planning*	
	M. TRANSPORTATION /CIRCULATION			
M-1	The Project shall pay all fees as required under the City's Public Facilities Impact Fees (Chapter 17.62 of the Merced Municipal Code).	Certificate of Occupancy	City Planning & City Engineer	
M-2	The developer shall construct all collector, local, or cul-de-sac streets within the Project boundaries to their ultimate right-of-way with full frontage improvements as defined by the City of Merced Standard Designs for all Engineering Structures and the Merced Vision 2015 General Plan and any amendments thereto. This will include its proportional share of the proposed Reverse Frontage Road North-South Collector to be located along the west boundary of AREA A/east boundary of AREA B (and, if included, along the east boundary of AREA C), and any new interior streets within the Project boundaries. The timing of construction of the improvements is to be governed by the Subdivision Map Act and/or local ordinance.	Tentative Maps/ Parcel Maps/ Site Plan Reviews	City Planning & Engineering	
M-3	The developer shall dedicate half the required right-of-way for all arterial and higher order streets adjacent to the Project boundaries as defined in the *Merced Vision 2015 General Plan*. This includes both Yosemite Avenue and "R" Street (each adjacent to AREA A), as well as Highway 59 (currently several design concepts are under study/evaluation by Caltrans) adjacent to AREA B (and, if included, AREA C). Consistent with Mitigation Measure 7.b of the Merced Vision 2015 General Plan EIR, where the extent of right-of-way dedication exceeds the City's development standards for a collector street (currently 74 feet for a collector street located entirely within the Project and 37 feet for a collector abutting the Project), then the developer is eligible for reimbursements in accordance with the City's Public Facilities Impact Fee Ordinance and guidelines, unless a traffic study determines that the Project's traffic impacts require additional dedication.	Tentative Maps/Site Plan Reviews	City Planning & Engineering	

	Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
M-4	The developer shall construct the "collector equivalent" (74 feet) portion of the right-of-way, along with full frontage improvements along the Project boundaries and at least one travel lane in each direction, for all arterial and higher order streets within the Project boundaries. Consistent with Mitigation Measure 7.b of the Merced Vision 2015 General Plan EIR, where the extent of street improvements exceeds one-half of a "collector equivalent" street for a project fronting only one side of the street, the project is eligible for reimbursement for the cost of improvements exceeding the one-half "collector equivalent" in accordance with the City's Public Facilities Impact Fee Ordinance and guidelines, unless a traffic study determines that the Project's traffic impacts require additional improvements.	Tentative Maps/ Parcel Maps/ Site Plan Reviews	City Planning & Engineering	
M-5	The owner of each adjacent corner within AREA A shall be responsible for one-quarter of the cost of a traffic signal, to City standards and the satisfaction of the City Engineer, at each quarter mile/half-mile collector intersection with Yosemite Avenue, as well as the intersection of Lehigh Drive (extended) with "R" Street, whenever warrants are met in the judgment of the City Engineer. In such a case, installation of an intersection traffic signal by one developer could even be required at any of these locations by the City Engineer prior to full build-out and adjacent properties, if warrants are met, subject to adopted reimbursement requirements. Security shall be determined at the time of first subdivision map or other discretionary action.	Tentative Maps/ Parcel Maps/ Site Plan Reviews	City Planning & Engineering	
(M-6)	(General Plan 7a) Appropriate traffic studies shall be prepared for all development projects which can be expected to reduce a road segment or intersection level of service below "D." (Note: Studies are not anticipated, based upon current projections, but could be required in the event of furture changes).	Subdivision Map/ Conditional Use Permit	Engineering	
(M-7)	(General Plan 7b) The City shall require all development proposals to contribute, based on their proportionate share of impact, to circulation system improvements necessary to maintain at least a level of service "D" on all road segments and intersections impacted by the development project.	Subdivision Map/ Conditional Use Permit	Engineering/Planning/ Finance	

	N. PUBLIC SERVICES			
	FIRE			
N-1	The applicants shall be required to provide a level of accessibility and rangeland management (firebreaks and/or disking) for fire suppression that is acceptable to the City of Merced.	Tentative Maps/ Parcel Maps Building Permits	City Planning & Fire	
	SCHOOLS			
N-2	Careful coordination is required between City, developer(s), and School District regarding phasing of infrastructure improvements within the general area, to achieve safe, adequate access for both school construction and operation.	Tentative Maps/ Parcel Maps Building Permits	Planning staff, City Engineer, and City School District	
N-3	Prior to the issuance of building permits, the applicant shall be responsible for the payment of school facility impact fees as adopted by the Merced City School District and Merced Union High School District.	Building Permits	City School District and MUHSD	
(N-4)	(General Plan 8-c) Site designs will need to be reviewed to assure that development does not hinder efficient and cost-effective public services delivery.	Tentative Maps/ Parcel Maps/ Conditional Use Permits	Planning staff, City Engineer, and City School District	
(N-5)	(General Plan 8-d) Development projects will be required to pay public facilities impact fees as established by the City in accordance with the requirements of State law.	Building Permit	Planning Staff/ Finance	

	Mitigation Measure	***Timing***	***Agency or Department Consultation***	***City Verification (date and initials)***
	T. CULTURAL RESOURCES			
T-1	If evidence of archaeological artifacts is discovered during construction, all operations within an area at and adjacent to the discovered site shall halt until a qualified archaeologist determines the extent of significance of the site.	*Building Permits*	*City Inspection Services*	
T-2	On-site preservation of a resource is the preferred alternative. Preserving a cultural deposit maintains the artifacts in context and may prevent inadvertent discovery of, or damage to, human burials. Preservation may be accomplished through a number of means such as capping or covering the site with a layer of soil, fencing the site area, and/or incorporation of the resource in a park area.	*Building Permits*	*City Inspection Services*	

Copies of This Form Distributed To:

_____ City Council _____ City Manager _____ City Planner _____ Public Works Dir._____ City Engineer _____ Fire Chief
_____ Police Chief _____ Leisure Serv. Dir. _____ County of Merced (Dept. _____) _____ Other (List_____)
_____ Responsible Agency: (List _____)

I hereby certify that I have inspected the project site and that the above information is true to the best of my knowledge.

Name: (Print) _____Representing: (Agency/Firm) _____

Signature: _____Date:_____