4
ENVIRONMENTAL CHECKLIST

This chapter of the Initial Study includes a discussion of the existing environmental conditions at the site, the potential environmental impacts from the project, and applicable mitigation measures. Each topic (e.g., Geology, Land Use, etc.) has the following four sections: (1) Setting; (2) Significant Impacts Identified in the 1994 MEIR[1]; (3) Mitigation Measures of the 1994 MEIR Relevant to the Project; and (4) Discussion Regarding the Proposed Project. The Initial Study Checklist questions are shown with solid boxes to denote the potential level of impact. Under the Discussion, if new impacts are identified, they are followed by mitigation measures that are labeled and numbered. Mitigation measures that were adopted by the MEIR are identified along with any additional required mitigations based on the current analysis in this Initial Study. The criteria for significance are also identified when applicable.

Specifically, the purpose of this chapter is to determine whether: (1) there are any additional significant environmental effects not previously examined in the MEIR; (2) any new mitigation measures are required; (3) any substantial changes have occurred with respect to the circumstances under which the MEIR was certified; or (4) whether there is new available information which was not known and could not have been known at the time the MEIR was certified so that major revisions of the previous MEIR would be required (CEQA Guidelines Sections 15176 and 15179). A "substantial change" must involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects (CEQA Guidelines Section 15162, 2004). New information includes significant effects that are substantially more severe than shown in the 1994 MEIR, or mitigation measures that are considerably different or previously found infeasible that are now feasible, but which the applicant declined to adopt. The MEIR findings of this Initial Study are presented in Appendix B.

The Environmental Checklist covers specific issues by topic (i.e., Aesthetics, Agricultural Resources, etc.). Because this Initial Study relies on the 1994 MEIR, the standard checklist has been somewhat modified to address the consistency between the environmental evaluation prepared for the Master Plan/Specific Plan I and the environmental evaluation for the proposed Business Park. The five Checklist categories include: 1) Less Than Significant or No Impact, 2) Potentially Significant Impact Adequately Addressed in MEIR; 3) Less Than Significant Impact Due to Mitigation Measures in Project Description; 4) New Additional Significant Impact Not Addressed in MEIR; and 5) New Additional Mitigation Measures Required.

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[1] This section identifies significant impacts from the 1994 MEIR for each environmental topic. The impacts preceded by "M" refer to impacts associated with the Master Plan, while those preceded by "S" refer to impacts associated with Specific Plan I, of which the Business Park site is a part. The 1994 MEIR addressed both the entire Master Plan and Specific Plan I.

The "Discussion" follows the checked boxes so that the reader is fully informed as to why a specific box of the checklist was marked. The explanations identify earlier analyses, the source of the information for the conclusion reached, and mitigation measures either already required for the project or suggested as part of the current analysis to reduce impacts to a less-than-significant level.

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
1. AESTHETICS. Would the project:					
a. Have a substantial adverse effect on a scenic vista?					
b. Substantially damage scenic resources?					
c. Substantially degrade the existing visual character of the surrounding area?					
d. Create a new source of light and glare that would affect day- or night-time views?					

SETTING

Introduction

This section of the Initial Study addresses the potential visual and aesthetic issues associated with the development of the Mountain House Business Park. The Aesthetics section assesses if there are any additional visual resource and light/glare conflicts on the project site or adjacent parcels that may require further mitigation not previously addressed in the 1994 MEIR.

Existing Conditions

The project site is currently undeveloped, but has been used for agricultural activities until the end of 2003. Existing structures on the site include a barn that was previously used for a produce market, two small trailers to house farm laborers, a larger trailer, and a couple of small sheds. All of the structures/trailers will be removed as development occurs on the site.

The site is relatively flat, sloping gently to the northeast with an elevation difference of approximately 45 feet. The site is visible from Interstate 205 (I-205) to the south, Mountain House Parkway to the east and Von Sosten Road to the northeast. The Mountain House Parkway/I-205 interchange abuts the project site in the southeast corner as well as extending across the southern boundary of the site. Mountain House Parkway ramps up to where it intersects with the westbound on-ramp to I-205 and the westbound off-ramp from I-205. From this intersection, approximately 20 feet above the project site, the site and much of the Mountain House community, is prominently visible to motorists traveling in either direction as shown in Figure 4.1-1. The site is also visible when traveling along Mountain House Parkway and at the intersection of Von Sosten Road and Mountain House Parkway as illustrated in Figure 4.1-2.

The Mountain House Community Services District (MHCSD) has adopted the *Mountain House Community Services District Design Manual* (MHCSD, 1999) which addresses the design standards for public facilities that would be under the jurisdiction of the MHCSD. Elements addressed by the MHCSD Design Manual include the following: streetscapes; walls and fences; paths; street furniture; lighting; signage; entries; community edges; parks; schools; civic facilities; and public works facilities. The MHCSD will review subdivision plans, building designs and improvement plans for all new MHCSD facilities within the community for conformance with the MHCSD Design Manual and with all applicable Master Plan programs, policies, and standards.

The design review process will also include review by the Mountain House Design Consistency Review Committee (DCRC) which will review Tentative Maps and Special Purpose Plans, all subsequent development permits including improvement plans for community facilities and buildings, design guidelines for private development and all development applications and building permits. The purpose of the DCRC is to determine that proposed projects are consistent with the policies and design requirements of the Master Plan, applicable specific plan, Development Title, and all other community approvals.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

M4.8-1 The proposed project would significantly alter the existing rural visual quality of the site as seen from local roads, regional freeways, and proposed public pathways.

M4.8-2 Views from public roads toward Mt. Diablo and the Mt. Diablo foothills to the west of the site would be screened by new buildings.

M4.8-4 Project development could result in the removal of mature trees currently visible from public roads; the trees frame views along the public roads.

M4.8-5 The project could generate light and glare that would be visible from major roads, residences within the project, and residences outside the project.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

Mitigation Measure M4.8-1 has four components, of which the first two are relevant to the proposed project. M4.8-1(a) calls for policies to be added to the Master Plan Appendix C, (Landscape Concept and Policies in Development Design) to require certain landscaping features and treatments; e.g., fencing, bikeways, trails, conceptual plant and tree palette, and edge treatments. The applicant has submitted plans that include these elements.

M4.8-1(b) requires language to be added to the Master Plan Implementation Program requiring a comprehensive sign program for the Freeway Service Commercial district that would limit pole signs identifying the freeway service area to no more than two locations. The height limits of the pole signs cannot exceed the heights specified in the Development Title for the C-FS areas. The applicant is proposing a monument sign to be located adjacent to the freeway which will identify the community and freeway service commercial uses. A comprehensive sign program will be submitted as a part of the Design Review process.

M4.8-2 addresses the protection of views towards Mt. Diablo and the foothills to the west of the project site, and requires that east/west roadways and pedestrian corridors must be landscaped with trees to frame views to the west where feasible. The proposed project street tree plan is consistent with this requirement on the east/west-trending streets.

M4.8-4 is directed to the potential loss of trees along Grant Line and Patterson Pass roads. Mature trees along Mountain House Parkway between Von Sosten Road and I-205 will be removed to accommodate a four-lane roadway.

M4.8-5 addresses potential lighting impacts and requires new language be added to the Master Plan Section 4.2.6, Policy (b) and Implementation (a) to minimize glare and impacts to adjacent land uses, especially residences. Commercial and industrial structures must include specific designs to ensure light and glare from the project will be minimized. The proposed application includes a lighting plan. In addition, the building designs must meet the Design Guidelines established by the MHCSD that addresses exterior lighting.

DISCUSSION REGARDING PROPOSED PROJECT

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

The nearest designated scenic route identified in the County's General Plan is the I-580 link to I-5, approximately one and one-half miles south of the project site. However, the site is visible when viewed from the Mountain House Parkway overpass, the westbound on/off ramps at Mountain House Parkway/I-205, westbound I-205, Mountain House Parkway and from the Von Sosten Road/Mountain House Parkway intersection. (Refer to the Site Location Map in Figure 1-1 and Figure 4.1-1.) Development of the Business Park will replace the existing rural landscape with urban-type development. Buildings will range in height from 24 to 80 feet.

Figure 4.1-1 **COLOR**

Figure 4.1-2 **COLOR**

Proposed parcel plans call for one- to three-story buildings and the park-and-ride lot backing up to I-205. When entering the I-205 westbound on-ramp, the view will be directed over the park-and-ride-lot to the central portion of the project site. Continuing westbound on I-205, the landscape screen proposed along the I-205 property boundary would screen the motorists' view of the buildings and parking lots. (Refer to Figure 2-9, Special Purpose Plan and Figure 2-17, Fencing and Edge Treatment Plan.) Distant views of the foothills to the northwest will be temporarily blocked along the length of the property's frontage; however, this is not considered to be a significant impact on a scenic resource, due to the short distance traveled and the short amount of time that the view is lost.

The Special Purpose Plan in Figure 2-9 and the roadway treatment plans reflected in Figures 2-18 and 2-19 depict the extent of landscaping that is being proposed as a part of the Tentative Map. The tree screen along the east/west arterials (Central Parkway and Spatafore Parkway) allow for views to the west of Mt. Diablo and the Diablo foothills. Installation of landscaping within the public-right-of-way is the responsibility of the applicant, but must meet the MHCSD landscaping standards. Once the landscaping is installed within the public right-of-way, it becomes the property of the MHCSD who will be responsible for its maintenance and upkeep. Landscaping along streets and in public areas would be required as part of the MHCSD design review and approval process.

The major entry way into the Business Park is Central Parkway at Mountain House Parkway. As shown in Figure 2-18, the applicant is proposing a landscaped plaza with a pedestrian portal on each side of Central Parkway. This entryway affords partially screened views into the development and to the foothills beyond. In the wintertime, the views will be more evident when deciduous trees have lost their leaves.

The buildings are spaced within the Business Park so that views open up to the west. However, as development occurs in Specific Plan III, and because the terrain is relatively flat, the views to the west/northwest at ground level will be restricted. The west/ northwesterly views will be seen from the second floor and above in the office/commercial buildings.

Mitigation Measures

See MEIR Mitigation Measures M4.8-1 and M4.8-2 that were subsequently partially incorporated into the Master Plan. No additional mitigation measures are required.

b. Substantially damage scenic resources?

The proposed project would not damage a scenic resource. The site is essentially vacant with the exception of the farm structures and domestic landscaping that surrounds the structures. This landscaping will be removed and a significant number of new trees and landscaping will be planted to offset any loss of existing trees. (Refer to Figure 2-9, Special Purpose Plan.) There are no identifiable scenic resources on the project site.

Mitigation Measures

No mitigation measures are required.

c. Substantially degrade the existing visual character of the surrounding area?

Refer to the discussion under item a), above. The visual character of the site is one of fallow land and empty farm structures with weeds growing up in the driveway and around the buildings. Development of the site will convert the current conditions into one of a landscaped business park with tree-lined streets and amenities such as the two water features, bike trails, and landscaped entries. This is considered a less-than-significant impact.

Mitigation Measures

No mitigation measures are required.

d. Create a new source of light and glare that would affect day- or night-time views?

The Business Park will create a substantial amount of nighttime light and glare because of the types of proposed uses. Landscaping along the I-205/property boundary edge will greatly reduce the potential glare on freeway motorists. The types of uses permitted within the commercial freeway services, such as gas stations and fast food restaurants, will generate a great deal of nighttime lighting and glare. The Mountain House Parkway elevated portion of the roadway will help to block the lighting to residents living east of this roadway. Other structures within the Business Park, the use of community walls, and tree screens throughout the Business Park and along roadways will help to block the exterior lighting associated with the commercial freeway services. In addition, the heavily landscaped Central Parkway and DeAnza Boulevard will also help to screen the nighttime lighting for residents of Neighborhoods A and B in Specific Plan III.

The Mountain House Business Park Commercial, Office and Industrial Design Manual (Maple Dell + McClelland, 2004) identifies specific criteria for exterior lighting within the Business Park. This criteria includes:

- Lighting shall be designed to minimize light levels for any given application and to emphasize high use areas. Low-level, pedestrian scale fixtures shall be utilized to the degree possible.
- All commercial uses shall utilize the designated light fixtures for private streets, parking lots and pedestrian areas.
- The fixtures designated for public streets may be utilized for parking areas or private streets subject to the Design Consistency Review Committee (DCRC) approval.
- Other lighting standards related to the building architecture may be utilized for areas adjacent to buildings or pedestrian areas, subject to DCRC approval.
- Lighting design shall minimize glare and excessive light spillage through the use of cut-off shields or fixtures.

The Design Manual prohibits exposed lamps, blinking or flashing lights, lights of unusually high intensity, low pressure sodium lamps and variations from standard fixtures and lamps with DCRC approval. The implementation of the above criteria is consistent with Mitigation M4.8-5 that was incorporated into the Master Plan, therefore, this is considered a less-than-significant impact.

Mitigation Measures

No mitigation measures are required.

Conclusions

There are no significant aesthetic impacts not previously examined in the MEIR. The project site does not border a designated scenic route. The landscape guidelines established for the proposed development will help to screen the development from I-205 and Mountain House roadways as well as adjoining residential uses proposed in Specific Plan III. The architectural design of the development will be in keeping with the design guidelines established by the MHCSD. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information that was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

BASELINE Environmental Consulting. 1994. *Mountain House Master Plan and Specific Plan I Final Environmental Impact Report* ["MEIR"], September.

Maple Dell & McClelland. 2004. Mountain House Business Park Commercial, Office & Industrial Design Manual, June 8.

Mountain House Community Services District. 2000. *Mountain House Community Services District Design Manual*, January 11.

San Joaquin County. 1994. *Mountain House New Community Master Plan*, adopted November 10, 1994, as amended.

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
2. AGRICULTURAL RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?		1			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?					
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?					

SETTING

Introduction

This section of the Initial Study addresses the potential agricultural resource issues associated with the development of the Mountain House Business Park. The Agricultural Resources section assesses: (1) if the proposed project would result in additional conversion of agricultural lands; (2) any new Williamson Act contract conflicts; and (3) if there are any new or more severe significant impacts to agricultural lands that require mitigation that were not previously addressed in the MEIR.

Existing Agricultural Resources

The existing 171-acre parcel consisted primarily of irrigated farmland upon which 15 different varieties of beans were grown as well as tomatoes and okra (Siegfried Engineering, 2004; Clevenger, 2004). The owners of the property operated a produce stand, selling a wide range of produce. The agricultural operation ceased at the end of the 2003 growing season

[1] Remains significant and unavoidable as stated in the 1994 MEIR.

and the land is presently fallow. The California Department of Conservation, Office of Land Conservation and San Joaquin County have designated the soil as Prime Farmland. The land was irrigated with water from the Byron Bethany Irrigation District's (BBID) Canal 155, an earthen irrigation canal that presently exists on the project site. Since farming operations have ceased, BBID is no longer delivering irrigation water to the project site.

The proposed Business Park will occupy approximately 142 acres of the 171-acre farm. The remaining 29 acres is included as a part of Specific Plan III that is expected to develop concurrently with the Business Park project. The land has not been under a Williamson Act contract.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

M4.1-1 Development of the proposed project would result in the loss of approximately 3,600 acres of Prime Farmland.

S4.1-1 The proposed phasing of growth during Specific Plan I may not be possible if Williamson Act contracts have not expired. This could decrease the number of jobs projected for the initial years and could affect the land use balance.

S4.1-2 Inclusion of lands within the Mountain House Community Services District that are not proposed for development in Specific Plan I could result in premature curtailment of agricultural operations.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

Mitigation M4.1-1 calls for adding text to the Master Plan to establish an agricultural fee based on each agricultural acre converted to urban use, or considering set aside land that can be used for agriculture or habitat. The County has not adopted an Agriculture Mitigation Fee as of September 2004.

Mitigation S4.1-1 states that Specific Plan I should be amended to ensure that an adequate amount of industrial land is available, not subject to Williamson Act contracts or conflicting non-renewal schedules, for development in the early years of Specific Plan I. The project site is not subject to the Williamson Act. Williamson Act contracts have expired on much of the other industrial properties within Mountain House.

Mitigation S4.1-2 pertains to properties outside the Specific Plan I boundaries. This mitigation measure does not apply to the project site, because the Master Plan designated this land for development within the Specific Plan I time period.

DISCUSSION REGARDING PROPOSED PROJECT

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

Development of the project site would result in the loss of approximately 142 acres of Prime Farmland as defined by the California Department of Conservation, Office of Land Conservation. This loss is consistent with the conclusions of the 1994 MEIR, which showed that all of the Business Park would be converted from farmland to urban use. The adopted Master Plan includes an Implementation Statement addressing agricultural mitigation fees. This statement says that if a countywide agricultural mitigation fee were established, based upon each agricultural acre converted to urban use, the fee shall be paid by the developer to the County at the time of the approval of each subdivision map or other discretionary permit. The fee would be implemented through an ordinance adopted by the Board of Supervisors. At the time of preparation of this Initial Study (February 2005), the County had not adopted such a fee.

The impact would remain significant and unavoidable as stated in the 1994 MEIR.

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.1-1, which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

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

There are no Williamson Act Contract lands within the project site or adjacent to the project site and no conflicts with agricultural zoning would occur. The site is zoned for industrial, public and office/commercial uses. The nearest active agricultural operation is located east of Mountain House Parkway. The four-lane roadway with its raised elevation effectively provides a "barrier" or separation between the proposed project and the nearby agricultural operations.

The agricultural land located to the east of Mountain House Parkway also received BBID irrigation water, which passed through the project site in an irrigation canal system. The BBID canal will be eliminated; however, the property to the east of Mountain House Parkway will continue to receive irrigation water, but through a transfer from BBID to the Westside Irrigation District (WSID). This irrigation district primarily serves agricultural land located east of Mountain House Parkway and southeast of Von Sosten Road. A proposed pump station will be installed at the WSID irrigation canal southeast of where the canal crosses Von Sosten Road.

Mitigation Measures

No mitigation measures are required.

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

The Master Plan is specific in its objectives to provide an infrastructure that will maintain the community's boundaries by serving only the Master Plan area. Any rezoning requests from property owners outside the Mountain House community would depend upon the availability

of water and wastewater services. Such requests would require environmental review at the time applications are filed. As discussed later in this Initial Study, the water and wastewater treatment plants have been sized to accommodate only the Mountain House community.

The Master Plan includes a policy (3.2.4(g)) that calls for phasing of development to allow continuation of adjacent agricultural operations. The proposed project site is located adjacent to existing farmland that is currently being planned for development as part of Specific Plan III. It is anticipated that development of the land in Specific Plan III will occur concurrently with the proposed project (Siegfried Engineering, 2004). If the development does not occur concurrently, the applicant will be required to maintain a 100-foot buffer between development and adjoining agricultural operations as required in the Master Plan. Thus, no additional mitigation measures are required to protect adjacent agricultural operations.

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.1-1, which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

Conclusions

The loss of prime agricultural land remains as a significant and unavoidable impact as identified in the 1994 MEIR. Development of the project site is consistent with the zoning designations of Specific Plan I, and the development is contained within the boundaries of the Master Plan area. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information that was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

Clevenger, Michael, Pegasus–M.H. Ventures I, LLC. 2004. Personal communication with Mills Associates, September 9.

Siegfried Engineering, Inc. 2004. *Farm Irrigation Drainage and Canal Report for Mountain House Business Park, San Joaquin County, California*, January.

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?					
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?					
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		1			
d) Expose sensitive receptors to substantial pollutant concentrations?					
e) Create objectionable odors affecting a substantial number of people?					

SETTING

Introduction

This section of the Initial Study addresses the potential air quality issues associated with the development of the Mountain House Business Park. The Air Quality section assesses if there are any additional air quality conflicts on the project site or adjacent parcels that may require further mitigation not previously addressed in the MEIR.

Ambient Air Quality Standards

Both the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants that represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality

[1] Remains significant and unavoidable as stated in the 1994 MEIR.

standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents.

The federal and State of California ambient air quality standards are summarized in Table 4.3-1 for important pollutants. The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the state standards are more stringent. This is particularly true for ozone and particulate matter ($PM_{2.5}$ and PM_{10}).

Table 4.3-1
Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour	0.12 ppm	0.09 ppm
	8-Hour	0.08 ppm	--
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.05 ppm	--
	1-Hour	--	0.25 ppm
Sulfur Dioxide	Annual	0.03 ppm	--
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	--	0.25 ppm
PM_{10}	Annual	50 ug/m^3	20 ug/m^3
	24-Hour	150 ug/m^3	50 ug/m^3
$PM_{2.5}$	Annual	15 ug/m^3	12 ug/m^3
	24-Hour	65 ug/m^3	--
Lead	30-Day Average	--	1.5 ug/m^3
	3-Month Average	1.5 ug/m^3	--

Notes: ppm = parts per million; ug/m^3 = micrograms per cubic meter.

The State of California regularly reviews scientific literature regarding the health effects and exposure to particulate matter and other pollutants. On May 3, 2002, CARB staff recommended lowering the level of the annual standard for PM_{10} and establishing a new annual standard for $PM_{2.5}$ (particulate matter 2.5 micrometers in diameter and smaller). The new standards became effective on July 5, 2003.

Attainment Status and Regional Air Quality Plans

Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain the standards. Under both the federal and state Clean Air Acts, the San Joaquin Valley Air Basin is a non-attainment area (standards have not been attained) for ozone and PM_{10}. The air basin is either attainment or unclassified for other ambient standards.

Designations for the new federal 8-hour ozone standard and $PM_{2.5}$ standards were delayed by lawsuits. San Joaquin County has been designated a non-attainment area for the 8-hour ozone standard. CARB and USEPA are both recommending that San Joaquin County be designated non-attainment for the federal $PM_{2.5}$ standard, but designations for the $PM_{2.5}$ standard are not expected before December 15, 2004.

To meet federal Clean Air Act requirements, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted an *Ozone Attainment Demonstration Plan* and in June 2003 adopted the *2003 PM_{10} Plan*. The most recent federal ozone plan (*Amended 2002 and 2005 Rate of Progress Plan for San Joaquin Valley Ozone*, December 2002) determined that it could not be demonstrated that the federal ozone standards could be met by the required date of November 15, 2005. In December 2003, the SJVAPCD requested that USEPA downgrade the Valley's ozone status from "severe" to "extreme" non-attainment and, in April 2004, USEPA approved the downgrade. The downgrade avoids automatic sanctions and would extend the deadline for meeting attainment until November 15, 2010, but requires implementation of stricter controls on existing and future air pollutant sources.

On April 28, 2004, USEPA finalized its approval of provisions of the San Joaquin Valley's *2003 PM_{10} Plan* and Plan Amendments as meeting the Clean Air Act requirements for serious PM_{10} non-attainment areas. The *2003 PM_{10} Plan* and Plan Amendments address the Clean Air Act requirements for serious PM_{10} non-attainment areas such as the San Joaquin Valley, including but not limited to a demonstration that best available control measures (BACM) are implemented for all significant sources and a demonstration that attainment is to be achieved as expeditiously as practicable.

To meet California Clean Air Act requirements, the SJVAPCD is currently drafting the *2003 Triennial Plan* for updating the Air Quality Attainment Plan (AQAP) and addressing the California ozone standard. The California Legislature, when it passed the California Clean Air Act in 1988, excluded PM_{10} from the basic planning requirements of the Act. The act did require the CARB to prepare a report to the Legislature regarding the prospect of achieving the state ambient air quality standard for PM_{10}. This report did not recommend imposing a planning process similar to that for ozone or other pollutants for achievement of the standard within a certain period of time.

CEQA Guidance Document

In 1998, the SJVAPCD adopted a formal guidance document containing the District's recommendations for preparing CEQA documents. The SJVAPCD has established the following standards of significance (SJVAPCD, 1998):

- A project results in estimated carbon monoxide concentrations exceeding the California Ambient Air Quality Standard of 9 parts per million (ppm) averaged over 8 hours and 20 ppm for 1 hour;
- A project results in new direct or indirect emissions of ozone precursors (ROG or NO_x) in excess of 10 tons per year;
- A project has the potential to frequently expose members of the public to objectionable odors; and
- A project has the potential to expose sensitive receptors (including residential areas) or the general public to substantial levels of toxic air contaminants.

The SJVAPCD CEQA guidance does not recommend quantitative analysis of construction emissions. The SJVAPCD significance threshold for construction dust impacts is based on the appropriateness of construction dust controls. The SJVAPCD guidelines provide feasible control measures for construction emission of PM_{10} beyond that required by SJVAPCD regulations. If the appropriate construction controls are to be implemented, air pollutant emissions for construction activities would be considered less than significant.

Recent Air Quality Programs and Regulations

The following are recent or current programs and regulations that may affect land use planning within the Specific Plan I area.

Indirect Source Controls

The SJVAPCD is in the process of developing Rules 3180 (Indirect Source Mitigation Fee) and 9510 (Indirect Source Review). The term "indirect source" refers to development that does not directly emit air pollutants, but attracts or generates motor vehicle trips. Under an indirect source rule, the SJVAPCD may require developers to submit plans for review before construction can begin. The SJVAPCD review would allow the SJVAPCD to determine the emissions caused by the project and require the developer to adopt measures to reduce air pollution during and after construction. The indirect source review program may also require developers to pay fees to fund other air quality projects in order to offset emissions from development. Adoption of Rules 3180 and 9510 is expected to occur during calendar year 2005.

Wood Smoke Controls

The SJVAPCD recently adopted Regulation 4901 to control wood-burning emissions from new residential development. Regulation 4901 prohibits wood-burning fireplaces within new residential development, and limits the number of wood-burning heaters or stoves that can be constructed. The limit on wood-burning devices is partially based on the density of development. Only one wood-burning device is allowed per home, but where density exceeds three homes per acre only two wood-burning devices are allowed per acre. However, these rules would not apply to the proposed project because no residential units are proposed.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identified the following impacts with respect to air quality:

M4.13-1 The project would increase regional emissions of criteria pollutants through new vehicle travel and new area-source emissions would have a significant and unavoidable adverse impact on air quality within the San Joaquin Valley Air Basin and adjacent San Francisco Bay Air Basin.

M4.13-2 The project would cause a potentially significant increase in the potential for nuisance complaints due to adjacent agricultural activities.

M4.13-3 The project would cause a less-than-significant increase in the potential for odor-related land use conflicts.

M4.13-4 The project would cause a less-than-significant increase in carbon monoxide along streets and intersections providing access to the project site.

M4.13-5 The project would cause significant emissions of PM_{10} during construction.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

Impacts M4.13-1, M4.13-2, and M4.13-5 are addressed below. Impacts M4.13-3 and M4.13-4 were less than significant and mitigation measures were not required.

The 1994 MEIR identified the following mitigation measure(s) for Impact M4.13-1. The first part was:

> *(a) The County should incorporate a countywide requirement for an air quality mitigation fee as part of the Development Title. Such a fee should be imposed when new projects generating more than 200 trips per day are not able to reduce trip generation by at least 25 percent. This fee could be used for air quality mitigation improvements, such as park-and-ride facilities, transit, vehicle inspection, or old car buy-back programs.*

No air quality mitigation fee has been adopted by the County. However, the SJVAPCD is currently developing Rule 3180 (Indirect Source Mitigation Fee) and Rule 9510 (Indirect Source Review), which may require developers to submit plans for review before construction can begin. The indirect source review program may also require developers to pay fees to fund other air quality projects in order to offset emissions from development. The rules are scheduled for adoption in the fourth quarter of 2004.

The second part was advisory in nature:

> *(b) Industrial or commercial operations at the project site with equipment that causes or has a potential for air pollution or that controls such air pollution may need to apply for an Authority to Construct and Permit to Operate according to regulations of the San Joaquin Valley Unified Air Pollution Control District.*

The primary mitigation measure for this impact was a requirement for Transportation Demand Management Program and Transit Plan. This measure is implemented in Chapter 10 of the Mountain House Master Plan and Specific Plan I.

The third part, c), identifies certain requirements to become standard Conditions of Approval of tentative subdivision maps for residential development. Item c) does not apply to the proposed Business Park since no residential development is proposed.

For Impact M4.13-2, Specific Plan I deals with the recommended changes from the 1994 MEIR addressing measures to reduce the potential for nuisance complaints due to adjacent agricultural activities. Deed notices addressing the County's Right-to-Farm Ordinance are required for all homes within Mountain House.

For Impact M4.13-5, the 1994 MEIR identified as mitigation two construction practices in addition to the requirements of SJVAPCD Regulation VIII. Since the 1994 MEIR, the SJVAPCD has greatly expanded the requirements of Regulation VIII and the SJVAPCD rule goes well beyond the requirements of the mitigation measures identified in the 1994 MEIR. The provisions of Regulation VIII pertaining to construction activities require:

- Effective dust suppression for land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill and demolition activities.
- Effective stabilization of all disturbed areas of a construction site, including storage piles, not used for seven or more days.
- Control of fugitive dust from on-site unpaved roads and off-site unpaved access roads.
- Removal of accumulations of mud or dirt at the end of the work day or once every 24 hours from public paved roads, shoulders, and access ways adjacent to the site.

Regulation VIII requires that a dust control plan be prepared, and violations of the requirements of Regulation VIII are subject to enforcement action. Violations are indicated by the generation of visible dust clouds and/or generation of complaints.

DISCUSSION REGARDING PROPOSED PROJECT

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

The San Joaquin Valley Air Basin is currently a federal and state non-attainment area for PM_{10} and ozone. The SJVAPCD's *PM_{10} Attainment Demonstration Plan* (PM_{10} ADP) was recently withdrawn and work is proceeding on a revised attainment plan. (There is no state PM_{10} plan.) The federal regional ozone plan is the *1994 Ozone Attainment Demonstration Plan* (OADP) and *Amended 2002 and 2005 Rate of Progress Plan*. The state-mandated ozone attainment plan is the *California Clean Air Act Triennial Progress Report and Plan Revision 1997-1999*.

In formulating these and other compliance strategies associated with the Air Quality Attainment Plan, the SJVAPCD relies on mobile-source inventories based on traffic forecasts provided by regional transportation planning agencies, which are in turn based on population and employment projections forecasted in local general plans. A project would be judged to conflict with implementation of the regional air quality plan if it would result in population or employment projections substantially greater than those used in the preparation of a regional air plan.

The project would result in a minor increase in employment compared to the assumptions used for the area in the Mountain House Master Plan and Specific Plan I. These changes do not result in population or employment projections substantially greater than those used in the preparation of the regional air plan. Project impacts would be less than significant.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.13-1(b) and (c), which were subsequently incorporated into the Master Plan. No additional mitigation measures are required.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Project traffic would increase concentrations of carbon monoxide along streets providing access to the project. Carbon monoxide is a local pollutant (i.e., high concentrations are normally only found very near sources). The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volume and congestion.

Both the *Guide for Assessing and Mitigating Air Quality Impacts* (SJVAPCD 1998) and statewide *Transportation Project-Level Carbon Monoxide* (Garza et al.1997) recommend that carbon monoxide impacts be quantified for signalized intersections at Level of Service E or worse, as these locations represent "hot spots" for carbon monoxide and are the locations where violations of an ambient air quality standard are most likely.

The traffic impact analysis examined Level of Service (LOS) for intersections affected by the project (TJKM, 2004). No existing or future signalized intersection is forecast to operate at LOS E or worse through the year 2025 with the proposed project. Since the project is within an attainment area for carbon monoxide (ambient air quality standards are currently attained) and in an area with low background concentrations, changes in carbon monoxide levels resulting from the project would not result in violations of the ambient air quality standards, and would represent a less-than-significant impact.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.13-1(b) and (c), which were subsequently incorporated into the Master Plan. No additional mitigation measures are required.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Project traffic emissions would have an effect on air quality outside the project vicinity. Trips to and from the project area would result in air pollutant emissions within the San Joaquin Valley and San Francisco Bay air basins. To evaluate emissions associated with the project, the URBEMIS-2002 computer program was employed. This same program was utilized to calculate emissions for development under the adopted Master Plan and zoning designations.

The annual increase in regional emissions from auto travel and area sources are shown in Table 4.3-2 for reactive organic gases (hydrocarbons), oxides of nitrogen (the two precursors of ozone), and PM_{10}. The SJVAPCD has established a threshold of significance for ozone precursors of 10 tons per year, and 15 tons per year has been assumed to represent a significant impact for PM_{10}.[2] Project buildout emissions are well above the thresholds of significance for ozone precursors and PM_{10}. Thus, project impacts on regional air quality would be significant. However, the emissions associated with the proposed project are less than those associated with the adopted Master Plan and zoning designations as shown in Table 4.3-2 because the project land use mix is less internal than was previously evaluated in the MEIR.

Table 4.3-2
Project Regional Emissions
(In Tons Per Year)

		Reactive Organic Gases (ROG)	**Nitrogen Oxides (NOx)**	**PM_{10}**
Adopted MP/Zoning Designations	Vehicles	40.31	48.25	33.39
	Area Sources	0.09	0.95	0.00
	Total	40.40	49.20	33.39
Proposed Project	Vehicles	33.31	40.26	28.14
	Area Sources	0.10	0.95	0.00
	Total	33.41	41.21	28.14
SJVAPCD Significance Threshold		10.0	10.0	15.0

[2] This emission is the SJVAPCD threshold level at which new stationary sources requiring permits from the SJVAPCD must provide emissions "offsets." This threshold of significance for PM_{10} is consistent with the SJVAPCD's reactive organic gases (ROG) and nitrogen oxides (NO_x) thresholds of 10 tons per year, which are also the offset thresholds established in SJVAPCD Rule 2201, New and Modified Stationary Source Review Rule.

Mitigation measures identified in the 1994 MEIR cannot provide the 76 percent reduction in emissions that would be required to reduce impacts to below the SJVAPCD thresholds of significance, so this impact would remain significant and unavoidable as it was identified in the 1994 MEIR.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.13-1(b) and (c), which were subsequently incorporated into the Master Plan. No additional mitigation measures are required.

d) Expose sensitive receptors to substantial pollutant concentrations?

Construction would result in numerous activities that would generate dust. The fine, silty soils in the project area and often strong afternoon winds exacerbate the potential for dust, particularly in the summer months. Clearing, grading, leveling, earthmoving, and excavation are the activities that generate the most PM_{10} emissions. Impacts would be localized and variable. Construction impacts would last for a period of several months.

Construction equipment and vehicles would also generate exhaust emissions during active construction. Although operated temporarily at construction sites, construction equipment is a substantial source category within the San Joaquin Valley Air Basin, generating ozone precursors as well as PM_{10}. Since construction equipment is normally considered part of the existing inventory of sources, quantification of this emission is not recommended by the SJVAPCD.

The SJVAPCD significance threshold for construction dust impacts is based on the appropriateness of construction dust controls. The SJVAPCD guidelines provide feasible control measures for construction emission of PM_{10} beyond those required by SJVAPCD regulations. If the appropriate construction controls are to be implemented, air pollutant emissions for construction activities would be considered less than significant. A standard condition of approval for Mountain House subdivisions requires the applicant to implement Regulation VIII control measures of the SJVAPCD and applicable measures in Table 6-3 of the SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts.*

With implementation of Regulation VIII controls per the standard condition of approval, construction impacts would be reduced to a less-than-significant level.

Mitigation Measures

No mitigation measures are required.

e) Create objectionable odors affecting a substantial number of people?

New development within the project site would not be near any potential source of odors and would not contain any sensitive receptors for odors. The land use types do not appear to have a high potential for odor generation. This is a less-than-significant impact.

Mitigation Measures

No mitigation measures are required.

Conclusions

The cumulative increase in pollutants remains as a significant and unavoidable impact as identified in the 1994 MEIR. Mitigation Measures M4.13-1(b) and (c) of the Master EIR apply to the proposed project and no further measures are required. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information that was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

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San Joaquin Valley Air Pollution Control District. 2003. *2003 PM_{10} Plan.* June 9.

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TJKM. 2004. *Pegasus Business Park Traffic Impact Study,* June 24.

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
4. BIOLOGICAL RESOURCES. Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		1			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?					
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?					
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?					
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?					
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan?					

[1] Remains significant and unavoidable as stated in the 1994 MEIR.

SETTING

Introduction

This section of the Initial Study addresses the potential biological resource issues associated with the development of the Mountain House Business Park. The 1994 MEIR described biological resources on the proposed Mountain House Business Park project site and within the larger planning area of the Mountain House community. Updated field studies provide information on general resources in the area, presence of sensitive natural communities, and the distribution and habitat requirements of special-status species either recorded from or suspected to occur in the project vicinity. This information forms the basis of this Initial Study.

A detailed description of vegetation and wildlife resources within the Mountain House community is provided in the 1994 MEIR, including information on crop and vegetation cover types, associated wildlife species, occurrence of special-status species, and presence of wetland resources.

Vegetation

Three updated survey reports for spring-flowering plants, special-status species, and sensitive habitat (EIP Associates, 2003, 2004a, 2004b) provide site-specific information on the plant cover and vegetation habitat on the site of the proposed Business Park. The Mountain House Master Plan requires this information for all projects prior to development.

The project site is primarily agricultural land (row crops – tomatoes and legumes), surrounded on the north and west by adjacent agricultural fields. Because of decades of agricultural use on the site and surrounding areas, native plant communities no longer exist. Other than agricultural crops, the vegetation cover on some areas of the site consists of ruderal (weedy) plants dominated by introduced annual and perennial grasses and herbaceous species growing along the boundaries of the agricultural fields.

The 2004 Mountain House Business Park Tree Survey Report (EIP Associates, 2004d) identified 358 mature trees on the project site, generally distributed along the boundary margins of the agricultural fields. The tree species include blue gum (*Eucalyptus globulus*), white poplar (*Populus alba*), Italian cypress (Cup*ressus sempervirens*), white mulberry (*Morus alba*), Peruvian pepper (*Schinus molle*), California black walnut (*Juglans californica*), California fan palm (*Washingtonia filifera*), ash (*Fraxinus* sp.), cherry (*Prunu*s sp.) and yucca (*Yucca* sp.).

These trees are common ornamental landscape species or naturalized species established by previous landowners. The poplar trees serve as a windbreak along the western border of the site. The mulberry trees line the northern half of the eastern border of the site. Cherry, eucalyptus, cypress, Peruvian pepper, and the other trees occur adjacent to the abandoned fruit stand, parking lot, residences, and an abandoned artificial fishing pond.

The Tree Report evaluated and rated the condition of the trees on the site (Table 4.4-1). Although most of the trees are in excellent to good condition, because of the patterned

distribution of the trees, they provide limited wildlife habitat suitable for nesting, foraging, or migration.

Table 4.4-1
Tree Survey Results
Proposed Mountain House Business Park Project Site

Tree Species	Condition	Number of Trees	Diameter Range (Inches)	Average Diameter (Inches)
White poplar (*Populus alba*)	Good - Fair	187	1 - 10	5
White mulberry (*Morus alba*)	Excellent - Good	98	8 - 38	18
Italian cypress (*Cupressus sempervirens*)	Good	28	5 - 7	6
Peruvian pepper tree *(Schinus molle*)	Fair	14	4 - 41	19
Blue gum (*Eucalyptus globulus*)	Fair	10	3 - 24	15
California black walnut (*Juglans californica*)	Fair	5	6 - 19	13
California fan palm (*Washingtonia filfera*)	Fair	4	9 - 11	11
Cherry (*Prunus* sp.)	Fair	2	Not Measured	Not Measured
Ash (*Fraxinus* sp.)	Good	1	NA	3
Yucca (*Yucca* sp.)	Good	1	NA	48

Wildlife

The wildlife observed by EIP Associates (2004 a, 2004 b, 2004c) during their updated field reconnaissance studies in November 2002 indicates no new information or change in circumstances related to wildlife since the certification of the 1994 MEIR that would result in new significant environmental effects.

Wildlife observed during the 2002 site surveys (EIP Associates, 2004a, 2004b, 2004c) includes:

- Northern harrier (*Circus cyaneus*),
- Kestrel (*Falco sparverius*),
- Red-tailed hawk (*Buteo jamaicensi*),

- Common crow (*Corvus brachyrhynchos*),
- Great egret (*Ardea alba*),
- Pacific gopher snake (*Pituophis melanoleuus catenifer*)
- Western fence lizard (*Sceloporus occidentalis*), and
- Louisiana red crayfish (*Procambarus clarkii*).

Although not observed directly during the 2002 surveys, the agricultural vegetation communities within the project site provide habitat for a variety of common wildlife species. These include black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), striped skunk (*Mephitis mephitis*), scrub jay (*Aphelocoma coerulescens*), house finch (*Carpodacus mexicanus*), western meadowlark (*Sturnella neglecta*), and yellow-billed magpie (*Pica nuttalli*). The mulberry trees within and adjacent to the project site provide suitable perching and nesting habitat for smaller raptors, such as kestrel and black-shouldered kite (*Elanus leucurus*), and migratory birds. The project site's agricultural fields support healthy populations of small rodents that provide a food base for common raptors, such as red-tailed hawk, kestrel, barn owl (*Tyto alba*), and northern harrier.

Special-Status Species

Special-status species[2] are plants and animals that are legally protected under the state and/or federal Endangered Species Acts[3] or other regulations. Special-status species also include other species that the scientific community and trustee agencies consider rare enough to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts and other essential habitat. The presence of species with legal protection under the Endangered Species Act often represents a major constraint to development, particularly when they are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take"[4] of these species.

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[2] Special-status species include: designated rare, threatened, or endangered and candidate species for listing by the California Department of Fish and Game (CDFG); designated threatened or endangered and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS); species considered rare or endangered under the conditions of Section 15380 of the *California Environmental Quality Act Guidelines*, such as those plant species identified on lists 1A, 1B and 2 in the *Inventory of Rare and Endangered Vascular Plants of California* by the California Native Plant Society (CNPS); and possibly other species which are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on list 3 in the CNPS Inventory or identified as animal "Species of Special Concern" by the CDFG.

[3] The federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

[4] "Take" as defined by the FESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" a threatened or endangered species. "Harm" is further defined by the USFWS to include the killing or harming of wildlife due to significant obstruction of essential behavior patterns (i.e., breeding, feeding, or sheltering) through significant habitat modification or degradation. The CDFG also considers the loss of listed species habitat as take, although this policy lacks statutory authority and case law support under the CESA.

Special status species reported to occur near the project site include 22 species of plants and 19 species of animals (Tables 4.4-2 and 4.4-3). Seven of the special-status plant species identified in Table 4.4-2 have the potential to occur within the project site based on the presence of suitable habitat associations (i.e., annual grassland and irrigation canal). These are large-flowered fiddleneck (*Amsinckia grandiflora*), big-scale balasamroot (*Balsamorhiza macrolepis* var. *macrolepis*), big tarplant (*Blepharizonia plumosa* ssp. *plumosa*), Mt. Diablo buckwheat (*Eriogonum truncatum*), round-leaved filaree (*Erodium macrophyllum*), rose-mallow (*Hibiscus lasiocarpus*), and showy madia (*Madia radiata*). The California Natural Diversity Data Base (CNDDB) and the California Native Plant Society (CNPS) do not have recorded occurrences of these species in the project area. In addition, EIP Associates observed no special-status plants on the site during their June 13, 2003 site surveys (EIP Associates, 2003). Due to past agricultural activities on the project site and the small amount of marginal habitat along the edges of the crop fields, the irrigation canal that crosses the site is of extremely poor quality; therefore, it is unlikely that special-status plant species occur on the project site.

Detailed discussions of the potential for occurrence of special-status animals species and the results of detailed surveys are provided in the 1994 MEIR, including information on Swainson's hawk (*Buteo swanisoni*), San Joaquin kit fox (*Vulpes macrotis mutica*), burrowing owl (*Athene cunicularia*), and western pond turtle (*Clemmys marmorata pallida*), among others.

Additional surveys of the Business Park site (EIP Associates, 2004a, 2004b, 2004c) provides an update on the potential occurrence of essential habitat for the Swainson's hawk, kit fox, and burrowing owl, and other special–status species.

The project site is located within the San Joaquin kit fox range. EIP Associates' biologists observed and examined fifteen burrow complexes, located on the south and southeast border of the site, for evidence of kit fox, or other special-status species. The biologists considered a few of the burrows as "potential kit fox burrows" (a den of appropriate sized and shape in suitable habitat but without kit fox sign), but none of the burrows showed evidence of use. The entrances to the burrow were full of leaves and other debris, and there were no mammal tracks or their sign near the burrows.

In addition to the San Joaquin kit fox, two other special-status mammals have recorded occurrences within the project vicinity – the California mastiff bat and the San Joaquin pocket mouse. The project site does not support the roost habitat (crevices in cliff faces, high buildings, or tunnels) required for the bat. The recorded occurrence of the San Joaquin pocket mouse is approximately one mile southwest of the project site. However, due to agricultural practices such as spraying of herbicides and pesticides, plowing and discing, and harvesting, it is unlikely that the project site would support this species.

Table 4.4-2
Special-Status Plant Species with Recorded Occurrence Near the Proposed Project Site

Species	Status*	Blooming Period	Habitat/Potential for Occurrence on Project Site
Amsinckia grandiflora Large-flowered fiddleneck	SE, FE, 1B	April-May	Grassland, woodland. Known from only three natural occurrences. Reduced by agriculture. The scarcity of natural, undeveloped, non-agricultural grasslands limits the potential occurrence of this species on the project site.
Amsinckia lunaris Bent-flowered fiddleneck	1B	March-June	Coastal bluff scrub, woodland, valley and foothill woodland. Species occurs in Alameda County and areas west and north of the project site.
Astragalus tener var. *ferrisiae* Ferris' milk-vetch	1B	April-May	Grasslands and meadows; seeps and subalkaline flats/very low to no probability of occurrence; site ***does not*** provide suitable habitat. Presumed extinct except in Butte and Glenn Counties.
Astragalus tener var. *tener* Alkali milk vetch	1B	March-June	Playas, grasslands on adobe soils, and vernal pools with alkaline soils; very low to no probability of occurrence, site ***does not*** provide suitable habitat.
Atriplex cordulata Heartscale	1B	April-October	Chenopod scrub, grasslands, meadows and seeps on saline or alkaline soils; very low to no probability of occurrence, site ***does not*** provide suitable habitat. Presumed extinct in San Joaquin County.
Atriplex depressa Brittlescale	1B	May-October	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools on alkaline and clay soils. Very low to no probability of occurrence on the Business Park site, site ***does not*** provide suitable habitat.
Atriplex joaquiniana San Joaquin saltbush	FSC, 1B	April-October	Chenopod scrub, grasslands, meadows and seeps on saline or alkaline soils, very low to no probability of occurrence, site ***does not*** provide suitable habitat.
Balsamorhiza macrolepis var, *macrolepis* Big-scale balsamroot	1B	March-June	Chaparral, cismontane woodland, valley and foothill grassland/sometime on serpentine. The scarcity of natural, undeveloped, non-agricultural grasslands limits the potential occurrence of this species on the project site. Very low to no probability of occurrence on the Business Park site.
Blepharizonia plumosa Big tarplant	1B	July-October	Valley and foothill grassland. Presumed extinct in San Joaquin County. The scarcity of natural, undeveloped, non-agricultural grasslands limits the potential occurrence of this species on the project site. Very low to no probability of occurrence on the Business Park site.
Caulanthus coulteri var. *lemmonii* Lemmon's jewelflower	1B	March-May	Pinyon and juniper woodland, valley and foothill grassland. Scarcity of natural, undeveloped, non-agricultural grasslands limits the potential occurrence of this species on the project site. Very low to no probability of occurrence on the Business Park site.

Species	Status*	Blooming Period	Habitat/Potential for Occurrence on Project Site
Cordylanthus mollis ssp. hispidus Hispid bird's-beak	1B	June-September	Meadows and seeps, playas, valley and foothill grassland on alkaline soils. Species extirpated from the San Joaquin valley. Very low to no probability of occurrence on the Business Park site, site ***does not*** provide suitable habitat.
Cordylanthus palmatus Palmate-bracted bird's-beak	SE, FE, 1B	May-October	Chenopod scrub, valley and foothill grassland (alkaline). Species extirpated from the San Joaquin County. Very low to no probability of occurrence on the Business Park site, site ***does not*** provide suitable habitat.
Deinandra bacigalupii Livermore tarplant	1B	June-October	Meadows and seeps (alkaline). Species extirpated from the San Joaquin valley. Very low to no probability of occurrence on the Business Park site, site ***does not*** provide suitable habitat
Delphinium recurvatum Recurved larkspur	1B	March-May	Chenopod scrub, grasslands, and woodlands; very low to no probability of occurrence; site ***does not*** provide suitable habitat.
Eriogonum truncatum Mt. Diablo buckwheat	1A	April-November	Chaparral, coastal scrub, valley and foothill grassland on sandy soils. Presumed extinct in San Joaquin County. The scarcity of natural, undeveloped, non-agricultural grasslands limits the potential occurrence of this species on the project site.
Erodium macrophyllum Round-leaved filaree	2	March-May	Woodland, valley and foothill grassland on clay soils. The scarcity of natural, undeveloped, non-agricultural grasslands limits the potential occurrence of this species on the project site.
Eschscholzia rhombipetala Diamond-petaled California poppy	1B	March-April	Grasslands on alkaline, clay soils; very low to no probability of occurrence; site ***does not*** provide suitable habitat. Presumed extinct in San Joaquin County.
Hibiscus lasiocarpus Rose mallow	2	June-September	Marshes and swamps (freshwater); Sacramento and San Joaquin River System, and Delta; very low to no probability of occurrence. The irrigation canal on site is maintained with little vegetation cover remaining. The site ***does not*** provide suitable habitat. The species occurs on the banks of Old River.
Madia radiata Showy madia	1B	March-May	Woodland, valley and foothill grassland. Species extirpated from the San Joaquin County. Very low to no probability of occurrence on the Business Park site, site ***does not*** provide suitable habitat.
Senecio aphanactis Rayless ragwort	2	January-April	Chaparral, woodland, coastal scrub on alkaline soils. Very low to no probability of occurrence on the Business Park site, site ***does not*** provide suitable habitat.
Trifolium depauperatum var. *hydrohilum* Saline clover	1B	April-June	Marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. Very low to no probability of occurrence on the Business Park site, site ***does not*** provide suitable habitat
Tropidocarpum capparideum Caper-fruited tropidocarpum	FSC, 1A	March-April	Grasslands on alkaline soils; very low to no probability of occurrence; site ***does not*** provide suitable habitat. Last seen in California in 1957. Presumed extinct.

*Key to status codes:

FSC: Federal Species of Concern.
FE Federal Endangered
FR Federal Rare
SE State Endangered
SR: State Rare.
1A: CNPS List 1A of plants presumed extinct in California.
1B: CNPS List 1B of plants rare, threatened or endangered in California and elsewhere.
2: CNPS List 2 of plants rare, threatened, or endangered in California but more common elsewhere.

Source: California Native Plant Society (2004).

Table 4.4-3
Special-Status Animal Species with Recorded Occurrence Near the Proposed Project Site

Species	Status*	Habitat/Potential for Occurrence on Project Site
Agelarius tricolored (nesting) Tri-colored blackbird	FSC, SSC	Forages in agricultural fields and grasslands; nests primarily in freshwater marshes with tall emergent vegetation, and less often in riparian thickets; very low to no probability of occurrence due to the lack of tall, dense cattails or tules nesting habitat located near fresh water.
Ambystoma californiense California tiger salamander	FE, SSC	Seasonal water bodies, vernal pools, and stock ponds, absent of fish, in grassland or woodland habitats; very low to no probability of occurrence. The project site does not contain suitable breeding habitat.
Aquila chrysaetos/ Golden eagle (nesting and wintering)	CSC	Foothills, grassland, oak woodland, cliff-walls or large trees in open areas provide nesting habitat. The project site does not contain suitable breeding habitat
Athene cunicularia Burrowing owl	FSC, SSC	Grasslands, deserts and scrublands; dependent on mammal burrows; moderate probability of occurrence, suitable habitat is present as noted by presence of ground squirrels.
Branchiecta lynchi Vernal pool fairy shrimp	FT	Vernal pools in grasslands or sandstone depressions and grassy swales. The project site does not contain suitable breeding habitat.
Buteo swainsoni Swainson's hawk	ST	Breeds in tall trees in open areas. Requires adjacent foraging habitat such as grasslands or alfalfa fields; moderate to low probability of occurrence; the project site contains suitable foraging habitat.
Circus cyaneous Northern harrier	SSC	Forages in agricultural and seasonal marsh areas with low grassland vegetation; uses shrub cover for nesting; moderate to low probability of nesting on the Business Park site, but the species has been observed along Old River.
Clemmys marmorata Western pond turtle	SSC	Associated with permanent water – marshes, rivers, streams and irrigation ditches with aquatic vegetation; very low probability of occurrence.

Species	Status*	Habitat/Potential for Occurrence on Project Site
Elanus leucurus Black-shouldered kite	FP	Forages in agricultural areas, grasslands, and seasonal marshes; nests in trees with dense foliage; moderate to low probability of nesting on the Business Park site, but the species has been observed along Old River.
Eremophila alpetris actica California horned lark	SSC	Nests in short grass prairie, mountain meadows, coastal plains, fallow fields, and alkali flats; low probability of occurrence. The site does not contain suitable nesting habitat.
Eumops perotis californicus Greater western mastiff-bat	FSC, CSC	Crevices in cliff faces, high buildings, trees and tunnels. Very low to no probability of occurrence. The project site does not contain suitable breeding habitat.
Lanius ludovicanus Loggerhead shrike	FSC, SSC	Open grasslands and brush lands; builds nests in densely foliaged shrub or tree; moderate to low probability of nesting on the sites.
Masticophis flagellum ruddocki San Joaquin whipsnake	FSC, SSC	Open, dry habitat with little or no tree cover in valley grassland and saltbush scrub. Need mammal burrows for refuge and oviposition sites. The project site does not contain suitable breeding habitat.
Masticophis lateralis euryxanthus Alameda whipsnake	FT, CT	Valley-foothill hardwood habitat on south-facing slopes and ravines, and rock outcrops, where chaparral shrubs (sage scrub) form a vegetative mosaic with oak trees and grasses. The intensively cultivated land use of the site does not provide suitable habitat.
Perognathus inornatus inornatus San Joaquin pocket mouse	FSC	Grasslands and blue oak savannas; very low probability of occurrence. The intensively cultivated land use of the site does not provide suitable habitat.
Phrynsoma coronatum frontale California horned lizard	FSC, CSC	Open country, sandy areas, washes, floodplains, and wind-blown debris. Very low to no probability of occurrence. The project site does not contain suitable breeding habitat.
Rana aurora draytonii California red-legged frog	FT, SSC	Lowlands and foothills in or near permanent sources of water with dense, shrubby or emergent riparian vegetation; very low probability of occurrence.
Scaphiopus (= *Spea*) *hammondii* Western spadefoot	FSC, SSC	Vernal pools in grasslands and grassy swales. The project site does not contain suitable breeding habitat.
Vulpes macrotis mutica San Joaquin kit fox	FE, ST	Grasslands and shrub lands on loose textured, friable soils; very low probability of occurrence although documented in the Mountain House New Community in the past. The Business Park site is suitable for dens but none found during field surveys. Foxes may forage or wander through the area.

*Key to status codes:

FE: Federal Endangered
FT: Federal Threatened
FSC: Federal Species of Special Concern
SE: State Endangered
ST: State Threatened
SSC: State Species of Special Concern
FP: State Fully Protected Species

Source: California Natural Diversity Data Base (2004).

No recorded occurrences exist for any special-status birds on the project site. However, within one mile of the project site to the south and southeast, there are several occurrences of burrowing owl. The burrows were examined to determine if any were occupied by burrowing owls. No burrows appeared to be occupied by owls (no molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance) (EIP Associates, 2004a).

Other documented special-status bird species near the proposed Business Park site include California horned lark, Swainson's hawk and black-shouldered kite. Field biologists surveyed the trees on the project site for these species (EIP Associates, 2004c). The biologists surveyed all 358 mature trees. They observed no characteristic raptor nests; raptor feathers, whitewash, pellets or prey remains on or near any of the trees on the project site. A few of the larger trees located along the western boundary of the project site, however, are of sufficient size and structure to support nesting raptors and such raptors were seen by biologists flying over the area. There is also an abundance of nearby foraging habitat for such raptors.

No recorded occurrences exist for any special-status reptiles, amphibians, or invertebrates on the project site. Seven such special-status species (California red-legged frog, California tiger salamander, Alameda whipsnake, San Joaquin whipsnake, California horned lizard, vernal pool shrimp, and western spadefoot) have recorded occurrences within the project vicinity. However, the project site does not support the habitats required for these species to complete their lifecycle. This would include vernal pools for vernal pool fairy shrimp and spadefoot, or other seasonal wetlands, or permanent sources of water for the red-legged frog, tiger salamander, and pond turtle. Furthermore, the project site is subject to intensive agricultural activities, which would eliminate any other potential habitat for reptiles, amphibians and invertebrates.

Wetlands

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and floodwaters, and water recharge, filtration and purification functions. The California Department of Fish and Game (CDFG) and U.S. Army Corps of Engineers (Corps) have jurisdiction over modifications to riverbanks, lakes, stream channels and other wetland features.[5]

[5] Jurisdiction of the Corps is established through the provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material into "waters" of the United States without a permit, including wetlands and unvegetated "other waters of the U.S." The Corps uses three mandatory technical criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) to determine whether an area is a jurisdictional wetland. Jurisdictional authority of the CDFG over wetland areas is established under Sections 1601-1606 of the Fish and Game Code, which pertain to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream. The Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying the Department, incorporating necessary mitigation, and obtaining a Streambed Alteration Agreement.

The history of wetlands determination and mapping within the Mountain House community, as documented in the 1994 MEIR, began in 1990. A jurisdictional delineation of the entire Mountain House site was originally conducted in December 1990. The Corps verified this delineation in January 1991. The delineation was revised in June 1992; the Corps verified these revisions in October 1992. The Corps reverified the delineation again in October 1995 without revisions. That reverification expired in October 2000 pursuant to Corps regulations establishing a five-year life of a verified wetland delineation.

An irrigation canal (Canal 155) runs generally in a southeast to northwest alignment through the Mountain House Business Park project site. This canal is indicated as a "blue dot-dash line" on the Midway USGS 7.5-minute topographic quadrangle map, indicating a "canal." This canal crosses Mountain House Creek about 2.3 miles from the Business Park project site, connecting ultimately to the California Aqueduct. It terminates near the southeast corner of the project site and provides water to a farm east of Mountain House Parkway.

The Corps may often include within their regulatory authority irrigation canals that connect to "waters of the U.S." However, the canal on the project site terminates at the site, and the sole purpose of the canal is for the conveyance of agricultural irrigation water. In addition, floodgates control the flow of water in the canal and operators can turn water either "on" or "off" based on the need for irrigation. The canal is maintained and clear of vegetation. EIP Associates (2004b) determined that the canal is unlikely to fall under the regulatory authority of the Corps.

In addition to the irrigation canal, a small irrigation ditch runs along the eastern border of the project site. This ditch appears to collect irrigation water from the adjacent crop fields. This waterway is maintained and clear of vegetation, but does provide habitat for crayfish. As the ditch does not connect to "waters of the U.S.," the Corps probably would not consider the ditch under their regulatory authority.

In summary, there have been no substantial changes in wetlands location, type or acreage as evaluated in the Mountain House Master Plan EIR.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identified the following significant impacts of the Mountain House New Community Project that would be relevant to the proposed Mountain House Business Park:

M4.11-1 Project implementation would result in the elimination of over 4,000 acres of agricultural land and associated wildlife habitat.

M4.11-2 Project implementation would result in elimination of suitable on-site foraging and dispersal habitat for San Joaquin kit fox.

M4.11-3 Project implementation would result in elimination of all existing and potential on-site foraging habitat for Swainson's hawk.

M4.11-4 In addition to San Joaquin kit fox and Swainson's hawk, proposed development would affect a number of other special-status taxa (e.g., northern harrier, black-shouldered kite, burrowing owl, loggerhead shrike, and California horned lark).

M4.11-5 The project would block the movement of most terrestrial species between the eastern base of the Altamont Hills and the Delta-farmland region to the east.

M4.11-8 Off-site improvements, such as the raw water conveyance pipeline and pumping facilities, wastewater storage ponds, and application of wastewater irrigation could adversely affect sensitive biological resources.

Other impacts identified in the 1994 MEIR (specifically M4.11-6, M4.11-7 and M4.11-8) relate to the loss of biological resources in other areas of the Mountain House community and do not affect this analysis of the Business Park.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

For all of the above potential biological resource impacts, the Master Plan was amended as recommended in the 1994 MEIR mitigation measures. San Joaquin County adopted the *San Joaquin Multi-Species Habitat Conservation and Open Space Plan* (SJMSCP) and associated "take avoidance" is required for each Tentative Map. The proposed Mountain House Business Park is located within the Central/Southwest Transition Zone designated by the SJMSCP (San Joaquin COG, 2001). The SJMSCP was adopted in 2001 and is intended to provide a strategy for balancing the needs to conserve agricultural lands and wildlife habitat, while accommodating a growing population and property rights of individual land owners. The SJMSCP is designed to establish an assessment process for conversion of land to non-open space uses when such conversion might affect the plant and animal species covered by the SJMSCP. The species of concern potentially occurring on the Business Park site and covered by the SJMSCP include: San Joaquin kit fox, Swainson's hawk, California tiger salamander, California red-legged frog, western pond turtle, and burrowing owl, among others. All species that have even a remote potential for occurrence on the sites are addressed under the SJMSCP.

The Mountain House Business Park land is within the area covered by the SJMSCP and will be subject to the adopted fee. Participation in the SJMSCP includes payment of a fee for each acre of land converted to urban use (currently $1,724/acre), and compliance with incidental Take Minimization Measures defined in Section 5.2 of the SJMSCP. The Incidental Take Minimization Measures pertinent to the Business Park site include pre-construction surveys for special-status species, as well as measures to prevent and control ground squirrel occupation of the site early in the planning process.

DISCUSSION REGARDING PROPOSED PROJECT

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

No special-status species occur on the site of the proposed Mountain House Business Park. Development of the site, however, would eliminate potential foraging or the limited potential nest habitat for nesting raptors. Of particular concern is the loss of suitable foraging habitat for Swainson's hawk, burrowing owl, and other raptor species of concern. None of these species currently occupies the project site but likelihood of the Swainson's hawk, loggerhead shrike (observed flying over the area), and black-shouldered kite nesting in the project site trees, or burrowing owl using small mammal burrows on site in the future cannot be precluded with certainty. The impacts of habitat conversion and tree removal could have a significant effect on such species.

Detailed mitigation measures addressing the potential impacts of development on special-status species are incorporated into the 1994 MEIR, adopted as part of the Findings for Master Plan approval, and incorporated into the Master Plan. There is no new information or change in circumstances that would result in new significant environmental effects.

As noted in the Master Plan and Master EIR, the project applicant is eligible to participate in the SJMSCP to mitigate potential impacts to special status species and biological resources in general, including wildlife habitat conversion. Participation requires payment of a fee currently at $1,724 for each acre converted to urban use and meeting specific Incidental Take Avoidance Measures defined in Section 5.2 of the SJMSCP for the Central/Southwest transition zone. Participation in the SJMSCP would mitigate potential take of special-status species to a less than significant level in compliance with the state and federal Endangered Species Acts, assuming the Incidental Avoidance measures defined in the SJMSCP are adhered to as conditions of project approval.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.11-2, M4.11-3 and M4.11-4(b), which were subsequently incorporated into the Master Plan. No additional mitigation measures are required.

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

No riparian habitat or sensitive natural community types occur within the Mountain House Business Park site. The CNDDB records for the Midway USGS 7.5-minute topographic quadrangle show no occurrence of sensitive habitat communities on the project site. The nearest natural habitat is riparian strip along Old River and the valley sink shrub community along a small creek in an area north of Altamont Pass Road, approximately 4.3 miles east of the proposed Mountain House Business Park (CNDDB 2004).

Of the 358 trees located within the project site, only the five California black walnut trees and single specimens of the California fan palm and yucca are native to California. All of these trees are ornamentals and are not in a natural community. The California black walnut is cultivated in agricultural areas and is associated in native groupings along the slopes of canyons

and valleys. The fan palm and yucca are Southern California trees used in landscaping in Northern California. There would be no significant effect associated with the removal of these trees.

Mitigation Measures

No mitigation measures are required.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

There are no Clean Water Act Section 404 Corps jurisdictional wetland habitats on the proposed Mountain House Business Park site. The 1994 MEIR identified the location of wetlands within the Mountain House New Community planning area north of Grant Line Road. Updated field studies on the proposed Business Park site, as verified in this Initial Study, indicate no wetlands on the site. There is no new information, or change in circumstances since the certification of the Master EIR that would result in new significant environmental effects to wetlands.

Mitigation Measures

No mitigation measures are required.

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

The conversion of agricultural lands to office and retail uses, hotels, parking areas, paved streets, and surface water landscaped features would reduce habitat for a wide range of migratory wildlife species commonly associated with annual grasslands, crops, and ruderal vegetation. This impact would be cumulatively important in the context of development of the entire Mountain House community. This cumulative impact was addressed in the 1994 MEIR and would be mitigated with the provisions of the SJMSCP.

Mitigation Measures

No mitigation measures are required.

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

The proposed project would not conflict with any relevant policies or ordinances of the San Joaquin County General Plan and Development Title. Policies related to protection of sensitive biological resources would be addressed through the applicant's participation in the SJMSCP. The project would generally comply with the relevant sections of the Mountain House Master Plan and Specific Plan I. Although participation in the SJMSCP would mitigate the impacts of habitat conversion, impacts on wildlife foraging habitat, and the

habitat for special-status species, preconstruction surveys and compliance with the applicable "Incidental Take Avoidance Measures" of the SJMSCP would still be required.

The project would result in the removal of existing trees on the site; however, none of these trees are particularly important specimens nor considered "heritage trees" in the County's Development Title, none are used for nesting by raptors or function as other important biological resources, and all would be replaced by future landscape improvements incorporated into the design of the project. Proposed removal of trees would therefore not be a significant impact and no additional mitigation is necessary.

Mitigation Measures

No mitigation measures are required.

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

The proposed project would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved conservation plan. The SJMSCP was approved and adopted by the County to provide for the long-term management of plant, fish and wildlife species. The Mountain House Business Park is located within the land areas covered by the SJMSCP. The project will participate in the SJMSCP and comply with the Incidental Take Minimization Measures defined in Section 5.2 of the SJMSCP to assure compliance with the applicable Habitat Conservation Plan and the Master EIR. Therefore, there would be no significant impacts related to such plans.

Mitigation Measures

No mitigation measures are required.

Conclusions

The loss of habitat for any candidate, sensitive or special-status species remains a significant unavoidable impact as identified in the MEIR. There are no other significant effects on biological resources not previously examined in the MEIR, therefore no new mitigation measures are required. The applicant will be required to participate in the SJMSCP and comply with the Incidental Take Minimization Measures defined in the SJMSCP. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information that was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

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EIP Associates. 2004a. Mountain House Business Park Special-Status Species Report. Prepared for Pegasus Development, February 24.

EIP Associates. 2004b. Mountain House Business Park Sensitive Habitat Report. Prepared for Pegasus Development, February 24.

EIP Associates. 2004c. Mountain House Business Park Raptor Nest Survey Report. Prepared for Pegasus Development, March 4.

EIP Associates. 2004d. Mountain House Business Park Tree Survey Report. Prepared for Pegasus Development, March 4.

EIP Associates. 2003. Spring Botanical Survey letter Report for the Mountain House Project. Prepared for Pegasus Development, August 11.

San Joaquin Council of Governments (COG). 2001. San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
5. CULTURAL RESOURCES. Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?					
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?					
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?					
d) Disturb any human remains, including those interred outside of formal cemeteries?					

SETTING

Introduction

This section of the Initial Study addresses the potential cultural resource issues associated with the development of the Mountain House Business Park. The Cultural Resources section assesses if there are any additional cultural resource conflicts on the project site or adjacent parcels not previously addressed in the MEIR that may require further mitigation.

Existing Cultural Resources

The Business Park site is currently undeveloped except for the existing structures and mobile homes at the vegetable farm at the southeast corner of the project site. Historically, this site was used for growing beans. The site is located between the historic Miwok and Ohlone Indian area to the north and west and the Northern Yokut Indian area to the east and south. The Spanish entered the Tracy/Stockton area at the end of the 1700s or early 1800s. After Mexico's secession from Spain in 1822 and the subsequent secularization of the missions in 1833, much of California was divided into private ranchos. Cattle ranching, orchards and other agricultural uses were common in the region around the project site. Tracy was established as a railroad town on the Central Pacific Railroad (William Self Associates, Inc., 2004).

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identified the following as significant cultural resource impacts of the Master Plan:

M4.5-1 Development of the proposed project could disturb unknown subsurface pre-historic cultural deposits or artifacts dating from the establishment of Euro-American settlements.

M4.5-2 Development of the proposed project could disturb unknown pre-historic burial sites.

M4.5-3 Development of the proposed project could destroy structures over 50 years of age with historical value.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

For the potential cultural resource impacts cited above, the Master Plan was amended as recommended in the 1994 MEIR mitigation measures by requiring: (1) cessation of construction if any cultural deposits or artifacts are uncovered and (2) consultation with an archaeologist and a Native American Heritage Commission (NAHC) representative and the San Joaquin County coroner (if necessary).

DISCUSSION REGARDING PROPOSED PROJECT

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Ten previous archaeological investigations and a field trip on March 18, 2004, found no historic resources on the project site. The existing farm structures located in the southeast corner of the project site (the only structures on the site) appear to be 25 to 30 years old and have no historic value (William Self Associates, Inc., 2004). Since there are no known historic resources on the project site, the proposed Business Park would have no impact on historical resources.

Mitigation Measures

No mitigation measures are required.

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

The ten previous archaeological investigations and the field trip on March 18, 2004, found no pre-historic resources on the project site. Since there are no known archaeological resources on the project site, the proposed Business Park would have no impact on archaeological resources. In addition, the Master Plan and the County's Development Title include specific procedures to be followed should unknown resources be uncovered during construction.

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.5-1(e), which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

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

There are no known paleontological resources or unique geologic features on the project site. An existing 8-foot-deep trench and borrow pit near the petroleum pipeline that crosses the southwestern corner of the site in a northwest-to-southeast direction was observed during the March 18, 2004 field trip. No cultural or paleontological resources or unique geologic features were observed in the trench or pit. If such resources are uncovered during construction, construction would halt as required by the 1994 MEIR mitigation measure cited above to evaluate what should be done. Since there are no known paleontological resources or unique geologic features on the project site, the proposed Business Park would have no impact on these resources.

Mitigation Measures

No mitigation measures are required.

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

The NAHC was contacted regarding the proposed project. The NAHC stated that a "search of the sacred lands file has failed to indicate the presence of Native American cultural resources in the immediate project area" (William Self Associates, Inc., 2004). If human remains are found during construction, construction would immediately halt, and an archaeologist, an NAHC representative, and the San Joaquin County coroner would be consulted to determine the proper treatment and disposition of the human remains and any associated artifacts. The treatment and disposition may require archaeological excavation and reburial of the human remains. Discovery of human remains is not anticipated during construction of the Business Park. Therefore, the impact of the Business Park on human remains is expected to be less than significant.

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.5-2, which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

Conclusions

There are no significant impacts on cultural resources not previously identified in the MEIR. There are no known pre-historic or historic resources located on the project site. Should artifacts be uncovered during site preparation, the County's Development Title includes specific procedures to be followed. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information that was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

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San Joaquin County. 1994. *Mountain House New Community Master Plan*, adopted November 10, 1994, as amended.

San Joaquin County. 1994. *Mountain House New Community Specific Plan I*, adopted November 10, 1994, as amended September 12, 2000.

William Self Associates, Inc. 2004. Archaeological Survey and Assessment of the I-205/Grant Line Road Project Area, letter report, March 23.

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
6. GEOLOGY AND SOILS. Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.					
ii) Strong seismic ground shaking?		1			
iii) Seismic-related ground failure, including liquefaction?					
iv) Landslides?					
b) Result in substantial soil erosion or the loss of topsoil?					
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?					
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?					
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?					

[1] Remains significant and unavoidable as stated in the 1994 MEIR.

SETTING

Introduction

This section of the Initial Study addresses the potential geological issues associated with the development of the Mountain House Business Park. The Geology and Soils section assesses: (1) if there are any additional impacts on the project site or adjacent parcels that may require further mitigation; and (2) geological and geotechnical issues not previously addressed in the MEIR.

Topography and Site Features

The Mountain House Business Park area is relatively flat, sloping gently at approximately one percent to the northeast. Elevation ranges from approximately 165 feet above mean sea level (MSL) at the southwest corner to 120 feet MSL at the northeast corner of the site.

Several irrigation ditches that comprise the irrigation and drainage infrastructure of the existing farm traverse the project site. Canal 155 is the most prominent irrigation channel to cross the project site. Canal 155 runs southeast between the 140 and 145 contours to the southeastern corner of the project site.

Building pads will be created for the various proposed commercial and office structures at the site. While grading plans were not available at the time of this Initial Study, cut and fill quantities for vehicular access and building pads are anticipated to be minimal due to the relatively level topography at the site. Additionally, the proposed project includes abandonment of all existing drainage and irrigation infrastructure, including backfill and regrading of Canal 155, the abandoned fish ponding area in the southeastern portion of the site, and the settling pond at the northeastern corner of the project site.

Regional Geology

The project site is located in the upper San Joaquin Valley of the Great Valley geomorphic province of California. The Great Valley is a relatively flat alluvial plain that is infilled with as much as 6 vertical miles of alluvial and marine sediment. The Great Valley is bounded to the west by the Coast Ranges, to the east by the Sierra Nevada and the foothills, to the north by the Cascades and Klamath Ranges, and to the south by the Transverse Ranges. The Great Valley is drained by the Sacramento and San Joaquin Rivers through the Delta and ultimately to San Francisco Bay and the Pacific Ocean.

Regional geologic maps indicate that the geology in the vicinity of the project site is dominated by alluvial sedimentary deposits of Quaternary age. These unconsolidated sedimentary deposits are Holocene to Upper Pleistocene in age and include clay, silt, sand and gravel alluvial fan deposits (Kleinfelder, 2002).

Seismicity

The San Joaquin Valley is a seismically-active region of California. The seismicity of the region is primarily related to the boundary between the Coast Ranges and the Great Valley, two diverse geographic and geologic provinces. The San Andreas fault system, located

approximately 45 miles southwest of the project site, dominates the seismic activity of the Coast Ranges. The San Andreas fault system includes regionally active strike-slip faults such as the San Andreas fault, the Hayward fault, the Calaveras fault, the Concord-Green Valley fault, and, nearer to the site, the Greenville-Marsh Creek fault. Small earthquakes occur frequently on these active faults and periodic major earthquakes can cause significant surface displacement and regionally significant seismic ground shaking.

The seismic activity within the western part of the Great Valley province is dominated by earthquakes generated on normal and reverse (thrust) faults. The most significant of these faults is the Great Valley fault, which consists of multiple segments of thrust faulting along the boundary between the Coast Ranges and Great Valley provinces. Earthquakes on these faults rarely result in surface displacement, and motions are predominantly vertical in direction. The nearest of these fault segments, as summarized in Table 4.6-1, is located within 2 miles of the proposed development (Kleinfelder, 2002).

No known active nor potentially active faults have been mapped across the project site and the site is not located in an Earthquake Fault Zone Boundary as established by the Alquist-Priolo Earthquake Fault Zoning Act of 1972 (CDMG, 2000). The California State Mining and Geology Board has defined active faults as faults that have had surface displacement within Holocene time (within the last 11,000 years). Potentially active faults are faults that show evidence of surface displacement during Quaternary time (within the past 1.6 million years). The active and potentially active faults in the vicinity of the project site are presented in Table 4.6-1.

Table 4.6-1
Active and Potentially Active Faults in the Vicinity of the Mountain House Business Park Site

Fault	Status	Fault Length (miles)	Distance to Project Sites (miles)	Magnitude of Maximum Earthquake (Moment Magnitude)[a]	Slip Rate (mm/yr)
Great Valley (Segment 6)	Active	28	2	6.7	1.5
Great Valley (Segment 7)	Active	28	7	6.7	1.5
Greenville-Marsh Creek	Active	35	8	6.9	2.0
Calaveras (Northern)	Potentially Active	84	21	6.8	6.0
Great Valley (Segment 5)	Active	17	22	6.5	1.5
Concord-Green Valley	Active	44	23	6.9	6.0
Hayward	Active	50	27	7.1	9.0
Calaveras (Southern)	Active	62	28	6.2	15.0
Vaca	Potentially Active	17	29	6.7	1.5
San Andreas	Active	800	46	7.9	Varies

Note: [a] The moment magnitude (mm) is related to the physical size of fault rupture, the movement across the fault, and the strength of the material that is faulted. Earthquakes with magnitudes of 6 or greater are capable of causing widespread damage.

Source: Kleinfelder, 2002.

Site Soils

Under the San Joaquin County Development Title and Chapter 4, Article 7 of the California Subdivision Act, the project applicant is required to prepare preliminary soils reports (i.e., geotechnical studies) prior to the submittal of each Tentative Map area within the Mountain House community. A Preliminary Geotechnical Study for the proposed project was conducted in November 2002 by Kleinfelder, Inc.

An investigation of the site was performed in September 2002 and included drilling and sampling 18 boreholes to depths ranging from about 5 to 21.5 feet below ground surface (bgs) and completion of 8 cone penetration test (CPT) holes to depths of 20 to 40 feet bgs. The boreholes indicate that the site soils in the upper 20 feet bgs consist of interbedded sandy clay, clayey sand, silty sand, sand with silt, and poorly graded sand. CPT interpreted soil properties are generally consistent with the borehole logs in that the upper 20 feet of soil consist of interbedded clay, silt, and sand layers. CPT interpreted soil investigation results for 20 to 40 feet bgs indicate soils are interbedded sand, silty sand, sandy silt, clayey silt, and silty clay (Kleinfelder, 2002).

Soil expansion is a phenomenon in which clayey soils expand in volume because of an increase in moisture content, and shrink in volume upon drying. This is generally related to increased moisture in the winter and spring months and decreased moisture during the summer and fall. Changes in soil volume as a result of changes in moisture content can cause stress and result in cracking of foundations, pavement, sidewalks and damage to other site improvements. Expansive soils are identified using several laboratory techniques including expansion index testing and Atterberg limits (Liquid and Plastic Limits) testing. The geotechnical study conducted by Kleinfelder included Atterberg limits testing of the near surface sandy clay soils. The results indicate a moderate to high expansion potential for the sandy clay soils found within approximately 1 to 5 feet bgs.

Liquefaction hazards may be present in loose to medium dense, saturated soils, such as sands or silty sands, in which the space between individual particles is completely filled with water. Liquefaction can occur when a saturated soil loses shear strength and deforms because of increased pore water pressure induced by strong, seismically-induced ground shaking. Dissipation of the excess pore water pressure results in volume changes (settlement) in the liquefied soil layer. This can result in settlement of structures at the ground surface, floating of buried structures, and failure of retaining walls. Factors influencing liquefaction include soil type, particle size, density, confining pressure, depth to groundwater, and the intensity and duration of seismic ground shaking. Liquefiable soils that are not saturated with water may also settle during seismic shaking due to a process known as dynamic densification. During seismic shaking, void spaces within coarse-grained sediments can collapse, causing higher densities and lower volumes and resulting in settlement of overlying sediments.

The potential for an earthquake to generate the ground shaking characteristics capable of causing liquefaction at the site is a possibility. However, Kleinfelder (2002) indicated that due to the relatively deep groundwater at the site and because the subsurface soils are predominantly high in clay content and/or relatively dense, the potential for liquefaction is considered remote. Kleinfelder reported that the depth to groundwater was 38 feet bgs at the

time of the investigation, which was performed in September of 2002, near the end of the dry season.

Groundwater

Generally, groundwater flows as a subdued reflection of the surface topography. Depth to groundwater is expected to fluctuate in response to both seasonal rainfall and irrigation of surrounding farmland. Groundwater was not encountered in any of the 18 subsurface investigations performed at the project site in September 2002. However, laboratory soil results performed at this time did indicate the presence of groundwater at a depth of about 38 feet bgs at one of the borings in the southern portion of the site (Kleinfelder, 2002). Subsequent soil and groundwater investigations were performed in May 2004 at the southwestern portion of the site in response to the rupture of an 18-inch Chevron crude oil pipeline (see "Crude Oil Pipeline Rupture" discussion in Section 4.7: Hazards). During subsequent investigations, groundwater was encountered at approximately 43 feet bgs (Kleinfelder, 2004).

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identified significant and potentially significant geology/soils impacts of the Master Plan related to the following:

M4.6-1 Strong ground shaking during an earthquake could cause structural damage to improvements and injuries to workers and visitors at the site of the proposed project.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

The Master Plan required the preparation and distribution of a Community Earthquake Preparedness Plan to reduce project impacts associated with strong ground shaking during an earthquake [Policy 6.8.3]. Structures will be designed in accordance with recommendations listed in the Geotechnical Engineering Study for each Tentative Map area. Despite mitigation efforts, this remains a significant, unavoidable impact and findings related to this fact were adopted for the 1994 MEIR certification.

DISCUSSION REGARDING PROPOSED PROJECT

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

No Alquist-Priolo Earthquake Fault Zones have been mapped in San Joaquin County. No active faults have been identified within the Mountain House community project site.

Therefore, surface fault rupture is not considered a hazard at the project site. No impact related to fault rupture would occur as a result of project development.

Mitigation Measures

No mitigation measures are required.

ii) Strong seismic ground shaking?

San Joaquin Valley is a seismically active region of California. Strong, seismically-induced ground shaking resulting from earthquakes along nearby or distant faults represents the greatest seismic hazard at the Mountain House community. Active and potentially active faults in the vicinity of the project site are listed in Table 4.6-1.

The intensity of ground shaking at any particular site is a function of many factors including: (1) earthquake magnitude; (2) distance from the epicenter; (3) the duration of strong ground motion; (4) local geologic conditions (soil characteristics and topography); and (5) depth to bedrock. As indicated in Table 4.6-1, regionally active faults are capable of producing earthquakes with magnitudes of 6.7 or higher. During an earthquake, the subject site could be subjected to peak ground accelerations of 0.43 gravity (g) with a 10 percent probability of being exceeded in 50 years (CGS, 2004). Site-specific peak horizontal acceleration was calculated in the 2002 Kleinfelder study to be 0.5 g, with a probability of exceedance of 10 percent in 50 years. This indicates an annual probability of exceedance of 0.0021 and a return period of 475 years (Kleinfelder, 2002). During an earthquake, structural damage at the project site may include damage to buildings and infrastructure (i.e., roads and utilities).

The project would be required to comply with all California laws designed to minimize the potential adverse effects of an earthquake. These laws include the Hospital Seismic Safety Act of 1972, the Essential Services Buildings Seismic Safety Act of 1986, the Field Act of 1933, and the requirements of the California Building Code (CBC) of 2002, the Uniform Building Code (UBC) of 1997, and Mountain House Community Services District (MHCSD) standards.

The 1994 MEIR identified Mitigation Measure M4.6-1 (preparation of a Community Earthquake Preparedness Plan) to promote public awareness and education on earthquake hazards. This plan has been completed and is currently being implemented by the MHCSD.

Existing mitigation measures and policies related to strong seismic ground shaking can be found in the following documents: 1994 MEIR Mitigation Measure M4.6-1; Master Plan Policies 6.5.I(b) (Emergency Preparedness), and 6.8.3 (Soils, Geologic, and Seismic Hazards).

Despite project compliance with California laws related to earthquake hazards and the implementation of mitigation measures called for in the Master Plan and 1994 MEIR, project impacts related to ground shaking are significant and unavoidable and cannot be mitigated to a less-than-significant level.

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.6-1, which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

iii) Seismic-related ground failure, including liquefaction?

The potential for liquefaction of soils at the site was evaluated in the project *Preliminary Geotechnical Services Report*. Based on the depth to groundwater (38 to 43 feet bgs), the high clay content of site soils and the relatively dense nature of coarse-grained soils, the potential for liquefaction at the site was determined to be remote (Kleinfelder, 2002).

Mitigation Measures

No mitigation measures are required.

iv) Landslides?

The Mountain House Business Park area is located on very gently sloping terrain. The 1994 MEIR indicated that the project site is located outside areas of southwest San Joaquin County identified as susceptible to landsliding. Evidence of slope failures and/or landslides has not been mapped within or immediately adjacent to the Business Park site area.

Mitigation Measures

No mitigation measures are required.

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

Excessive soil erosion is not expected to occur within the Mountain House Business Park site because average slopes at the site are less than one percent. However, project grading for cuts and fills made for building pads, roadbeds, and surface drainage would require the stripping of such areas of all vegetation, debris, organic topsoil, or any existing fill or other unsuitable material or soil.

Project construction would be required to comply with the National Pollutant Discharge Elimination System (NPDES) program requirements. The Phase I NPDES storm water program, administered by the State Water Resources Control Board's (SWRCB) Division of Water Quality, regulates storm water discharges from major industrial facilities, large and medium-sized municipal separate storm sewer systems (those serving more than 100,000 persons), and construction sites that disturb 5 or more acres of land. Under the program, all land disturbances of 5 acres or more are required to implement Best Management Practices (BMPs) to prevent soil erosion and the off-site migration of sediment-laden runoff during construction. The site-specific plan that includes erosion control BMPs is called the Storm Water Pollution Prevention Plan (SWPPP). Additionally, Master Plan Policy 6.8.3(b) and the County Development Title require that adequate efforts be implemented during construction to control or eliminate soil erosion and sedimentation associated with construction activities.

Once construction is completed and project topsoil has become stabilized with hardscape and vegetation, soil erosion at the project site would be greatly reduced. Additionally, all urban runoff from the project site would flow to online water quality basins within the Mountain House Creek corridor that would help to remove sediment and soil particles from site runoff. These basins would require periodic maintenance, including desilting and vegetative clearing, to ensure proper functionality. Sedimentation and soil erosion water quality issues are further addressed in Section 4.8: Hydrology and Water Quality of this Initial Study.

Soil erosion and sedimentation are also addressed in the following Master Plan policies: Master Plan Policy 4.2.2.P.a, 4.2.2.P.d, (Grading Standards) and 6.8.3.P.b (Soils, Geologic, and Seismic Hazards).

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.7-6, which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

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

See responses to Checklist items a-iii and a-iv, above.

Mitigation Measures

No mitigation measures are required.

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

The UBC classifies the expansive nature of soils based on the expansion index. Geotechnical professionals commonly use Atterberg limits (liquid limit, plastic limit, plasticity index) testing to determine the expansive nature of soils during geotechnical studies. Soil expansion was also addressed in Master Plan Policy 6.8.3.O.a (Soils, Geologic, and Seismic Hazards). A standard condition of approval for Mountain House subdivisions requires the applicant to follow the recommendations of geotechnical reports for the site.

Laboratory testing indicates that soils in the Mountain House Business Park area have a medium to high expansion potential. Unless properly mitigated, soil expansion has the potential to damage foundations; cause large cracks in exterior walls, floors, and ceilings; and cause wavy “roller coaster” surfaces along driveways, sidewalks, and streets. The geotechnical report recommended several different measures for control of expansive soils. These methods include moisture conditioning of site soils prior to construction, replacement of expansive clay soils with non-expansive fill, and lime treatment of expansive soils. All of these methods may be appropriate for the various types and sizes of structures, pavements, and other site features that will be completed at the Business Park site. Each area and type of development shall be evaluated during the design and construction process by the

Geotechnical Engineer and Structural Engineer. These design professionals shall determine the appropriate option for expansive soil mitigation for each type of structure to be constructed. The various options are as follows:

- Site preparation and grading shall be completed as specified in the geotechnical engineering report. Areas to support slabs, pavements, foundations, and engineered fill shall be stripped of all vegetation, debris, organic topsoil, or any existing fill or unsuitable material or soil.
- Option 1 for expansive soil mitigation consists of moisture conditioning soils in the building areas. The upper 18 inches of subgrade soils in building areas shall be moisture conditioned during earthwork to a moisture content of 3 to 5 percent above the optimum moisture content. During or following moisture conditioning, the soils shall be compacted to between 85 and 95 percent relative compaction. Optimum moisture content and maximum dry density shall be determined in the laboratory in accordance with ASTM Test Method D-1557. The zone of moisture-conditioned soils shall extend a minimum of 5 feet outside the perimeter of structures. Prior to foundation construction, soils shall be pre-soaked in accordance with recommendations of the Geotechnical Engineer and field-tested to verify conformance.
- Option 2 for expansive soil stabilization shall be to import non-expansive fill to replace expansive soils. In this option, the proposed building slabs shall be supported on at least 12 inches of imported non-expansive fill that is placed and compacted as engineered fill in accordance with recommendations of the Geotechnical Engineer. The zone of non-expansive engineered fill shall extend a minimum of 5 feet outside the perimeter of structures. Subgrade soils shall be prepared in accordance with recommendations of the Geotechnical Engineer prior to placement of the non-expansive fill.
- Option 3 for expansive soil stabilization shall be to stabilize native clays by mixing them with lime. Lime treatment shall be performed in accordance with recommendations of the Geotechnical Engineer and shall be performed in accordance with requirements outlined in Section 24 of the Caltrans Standard Specifications. The procedure consists of mixing the upper 12 to 18 inches of subgrade soils with dolomitic or high calcium quick lime and compacting the soil as engineered fill. The stabilized soils shall extend a minimum of 5 feet outside the perimeter of structures.
- All fill material used as engineered fill at the project site shall meet the specifications of the Geotechnical Engineer.

Per the standard conditions of approval, all site preparation and completion of structures will be undertaken in accordance with the *Preliminary Geotechnical Services Report* and recommendations of the Project Geotechnical Engineer.

Mitigation Measures

No mitigation measures are required.

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

No septic tanks or alternative waste disposal systems are proposed for the project site. All wastewater would be collected in a piping system connected to the wastewater treatment plant located at the north end of the Mountain House community and operated by the MHCSD. The wastewater treatment plant is further discussed in Section 4.16: Utilities and Service Systems of this Initial Study. The project would have no impact on septic systems or alternative wastewater disposal systems. Thus, no mitigation is necessary.

Mitigation Measures

No mitigation measures are required.

Conclusions

The effect of strong ground shaking on new structures remains as a significant, unavoidable impact as identified in the MEIR. There are no other significant geological or soils impacts associated with the proposed development that has not been analyzed in the MEIR. The site is relatively flat and is not subject to liquefaction or landslides. The applicant will be required to comply with the NPDES program requirements as they relate to soil erosion and to the UBC code as it relates to expansive soils. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information that was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

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Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
7. HAZARDS. Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?					
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?					
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?					
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?					
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?					
f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?					
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?					
h) 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?					

SETTING

Introduction

This section of the Initial Study addresses the potential hazards issues associated with the development of the Mountain House Business Park. The Hazards section assesses: (1) if there are any additional sites on the project site or adjacent parcels that may require remediation or further site investigation; (2) the probable magnitude, likely extent, and severity of any encountered areas of concern; and (3) if project development would expose the future residential population to any hazardous waste or hazardous materials, including potentially toxic chemicals used in the surrounding area, that were not previously addressed in the MEIR.

Background

The Master Plan requires that an Environmental Site Assessment (ESA) be prepared and submitted with each Tentative Map. A Phase I ESA report was prepared for the project site by Kleinfelder, Inc., in November 2002. The purpose of the Phase I ESA report is to conduct an appropriate inquiry into previous ownership and uses of the property to help in partially satisfying the innocent landowners defense to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and to document those environmental conditions that could potentially impact development.

Subsequent soil testing was conducted at the project site in response to relevant onsite findings presented in the Phase I ESA. The purpose of the subsequent soil testing was to evaluate potential site contamination from past agricultural land uses at the site and possible soil contamination in the vicinity of petroleum aboveground storage tanks (ASTs). Topsoil immediately beneath one of the three on-site, pole-mounted electrical transformers was also evaluated. The results of this subsequent soil testing were presented in the *Limited Soil Sampling and Analysis* report prepared by Kleinfelder, Inc., in July 2003 and summarized in this section.

Additional soil and groundwater testing was conducted at the site in response to the accidental rupture of a crude oil pipeline in the southwestern corner of the project site. This is summarized in the discussion entitled “Crude Oil Pipeline Rupture,” below.

Site Topography and Features

The project site is located in the upper San Joaquin River Valley of the Great Valley Geomorphic Province of California. The Great Valley is an alluvial plain that is drained by the San Joaquin and Sacramento Rivers through the San Francisco Bay.

The ground surface in and around the site is generally level and slopes gently (less than one percent) northeast towards Old River. Ground surface elevations at the project site range from approximately 165 feet above mean sea level (MSL) at the southwest corner of the site to 120 feet MSL at the northeast corner of the site at corner of Von Sosten Road and Mountain House Parkway.

Several irrigation ditches that comprise the irrigation and drainage infrastructure of the existing farm traverse the project site. Canal 155 is the most prominent irrigation channel to cross the project site. Canal 155 runs southeast between the 140- and 145-foot contours to the southeastern corner of the project site.

Past and Present Land Use

Early aerial photographs of the project site indicate agricultural land uses have dominated the project site since the 1940s. The site has been used for the cultivation of legumes and other agricultural row crops since the 1970s. The site is currently fallow. Pesticides and herbicides have been used on the site due to past agricultural land uses and represent a source of hazardous materials on the project site.

Existing structures at the site include a produce stand, a residential trailer, an office trailer, a storage shed, two domestic wells, two septic tanks, and agricultural irrigation and drainage channels. Prior to project construction, all existing building structures will be demolished and cleared, and all existing irrigation and drainage infrastructure will be abandoned and removed. The wells and septic tanks will be abandoned in compliance with state and local regulations. While the exact ages of all buildings/structures to be torn down have not been determined, it is possible that some of these structures have asbestos-containing materials within them and/or lead-based paint on the exteriors. The project applicant is required to test all existing structures for asbestos and lead and obtain a demolition permit prior to all proposed building demolition. Existing structures on the project site were tested for lead and asbestos. No asbestos was encountered. Evidence of lead in paint samples taken from the shed was discovered, but laboratory tests concluded that the levels were below federal and state standards (Kleinfelder, 2003).

On-Site Fuel Storage

A reconnaissance of the project site was conducted by Kleinfelder, Inc., during the preparation of the Phase I ESA. At that time, three aboveground storage tanks (ASTs) were observed alongside of each other at the northeastern bank of the main irrigation channel (Canal 155) in the eastern portion of the site. One of the ASTs was a 500-gallon tank used to contain gasoline, which was located on the ground. The other two ASTs were 2,000-gallon, diesel-containing tanks that were elevated on stands about 10 feet above the ground. Soil staining was observed underneath the tanks and around the fill nozzles (Kleinfelder, 2002).

Initial soil sampling in the vicinity of the three ASTs was conducted as part of the *Limited Soil Sampling and Analysis* report for the project site in July 2003 (Kleinfelder, 2003). Two deep soil samples collected at depths of approximately 5 and 5½ feet were analyzed for: (1) petroleum hydrocarbons referenced as diesel; (2) petroleum hydrocarbons referenced as gasoline and benzene, toluene, ethylbenzene, and total xylenes (BTEX); and (3) total lead by EPA methods. Lead and petroleum hydrocarbons associated with diesel and gasoline and were detected in the two samples. Xylene was also detected in one of the samples. Xylene is a clear, colorless flammable liquid that is a constituent of motor fuels. Based on the reported sampling results, soils were excavated beneath the ASTs and followed by confirmation excavation and soil sampling (Kleinfelder, 2003).

Diesel/gasoline-impacted soil beneath the three former ASTs was excavated in June 2003. The excavation was approximately 22 by 15 by 14½ feet deep. A total of seven discrete confirmation samples were collected from the footprint and analyzed for petroleum constituents. Petroleum hydrocarbons referenced as diesel were detected in three of the seven confirmation soil samples (Kleinfelder, 2003).

A third set of soil samples was collected in July 2003. While petroleum hydrocarbons referenced as diesel and gasoline were still detected in two of the samples, according to Kleinfelder, the concentration of petroleum constituents detected in the confirmation soil samples would not generally trigger additional remediation activities (Kleinfelder, 2003)

Electrical Transformers

Between the 1930s and 1970s, polychlorinated biphenyls (PCBs) were commonly used as a replacement for the oil bath in electrical transformers and capacitors. Studies have indicated that PCBs may be carcinogenic to humans. In 1976, concern over the toxicity and persistence of PCBs in the environment led Congress to enact the Toxic Substances Control Act (TSCA) that included among other things, prohibition on the manufacture, processing, and distribution in commerce of PCBs.

The Master Plan requires a letter from Pacific Gas and Electric Company (PG&E) stating whether existing electrical transformers on the site contain PCBs and whether there are any records of spills from such equipment. The Master Plan also requires that all PCB-containing equipment be replaced and that any identified spill areas be evaluated for cleanup.

Three pole-mounted electrical transformers were observed during the site reconnaissance for the project site. Two are located near the eastern edge of the site, near the produce stand and along the eastern edge of the former fishing pond area. The third pole-mounted electrical transformer is located in the western portion of the site, approximately 100 to 150 feet west of the tree line. The transformer appears to be relatively old and discolored. Based on their age, the three pole-mounted electrical transformers may contain PCBs.

One discrete soil sample was collected from the old pole-mounted electrical transformer located in the western portion of the site, at a depth of approximately 0 to 6 inches directly beneath the transformer. This transformer was selected for soil testing because it appears relatively old and discolored. PCBs were not detected in the soil sample collected beneath this transformer (Kleinfelder, 2003).

Electromagnetic Fields

Electromagnetic fields (EMFs) are invisible energy fields composed of electric and magnetic fields that are generated by electrical devices. EMFs are emitted by everything that uses and/or conducts electricity, including power lines, electrical wiring, computers, television, hair dryers, and household appliances. While electrical fields are weakened by materials that conduct electricity (including trees, buildings, soil, and human skin), magnetic fields pass through most materials and are therefore difficult to shield. Both electric and magnetic fields

decrease as the distance from the source increases (California Department of Health Services, 1999).

Different forms of EMFs are produced by a variety of sources and may be differentiated based on their strength (frequency) and the ability of a particular EMF to cause ionization, a process that can produce molecular changes that can lead to damage in biological tissue and can potentially cause cancer. In the United States, electric energy facilities generate EMFs at a frequency of 60 hertz (Hz). Electromagnetic radiation ranging from 1 Hz to 300 Hz is considered to be extremely low frequency and non-ionizing (OSHA, 2004).

During the past 20 years, public concerns over the potential effects of EMFs on human health have resulted in several epidemiological, laboratory, and clinical studies. Some studies have suggested that there may be an association between electromagnetic fields and childhood leukemia. However, studies have not concluded that there is such a connection. At present, studies do not provide strong evidence for an association between EMF exposure and adult cancer or other forms of cancer in children (EMF RAPID, 2002).

In 1989 and 1993, the California Department of Education enacted requirements for setbacks from electrical transmission lines between new schools and the edge of the transmission easement (EHIB, 2004). These requirements were not based on specific health effects, but on the rationale that EMF radiation is reduced with increased distance from the source. There are no state or federal regulations that establish setbacks for other land uses. The setbacks required by the Department of Education for new schools are as follows:

- 100 feet from 50 to 133 kV lines;
- 150 feet from 220 to 230 kV lines; and
- 350 feet from 500 to 550 kV lines.

Despite the lack of state and federal regulations regarding setbacks from other land uses, the Master Plan (Section 6.3, page 194) and the Mountain House Development Title (Section 310.5m(f)) designate the following setbacks from the edge of the Rio Oso-Tesla powerline easement:

- 25 feet for residential dwelling units;
- 10 feet for non-residential structures; and
- no setback for parking and storage areas.

Fuel-Related Pipelines

Several underground gas and petroleum pipelines traverse the site. Two PG&E natural gas transmission lines currently cross the project site. (Refer to Figure 2-1 in Chapter 2: Project Description.) The first PG&E 6- and 8-inch-diameter gas transmission line trends north/south and is located along the eastern boundary of the project site along Mountain House Parkway. The second PG&E natural gas transmission line is a 26-inch-diameter line that crosses the southwestern portion of the project site and trends northwest/southeast.

PG&E records indicate that there have been no pipeline incidents in the vicinity of the project site since the time of installation of the subject natural gas pipelines (J. House Environmental, 2004).

A Chevron 18-inch-diameter crude oil pipeline is located in the southwestern portion of the site adjacent to the 26-inch-diameter PG&E gas line mentioned above. This pipeline conveys crude oil from Bakersfield to refineries in the Bay Area. The pipeline was installed in 1945 and has been in continuous operation since. Historic records indicate that two incidents previously occurred along the crude oil pipeline, one at approximately 13 miles from the project site and the second at a location approximately 98 miles from the project site. Both incidents were pinhole leaks that resulted from external erosion. The pipeline was ruptured again in December 2003 during agricultural operations at the project site. See the "Crude Oil Pipeline Rupture" discussion, below.

Under Specific Plan II, the northern portion of the 6- and 8-inch-diameter natural gas transmission line located along Mountain House Parkway will be rerouted to follow future MHCSD arterial roadway alignments. However, the segment of this pipeline located adjacent to the project site will remain intact (Precision Planning, 2004). The 26-inch-diameter PG&E and 18-inch-diameter Chevron pipelines located in the southwestern portion of the site will remain in their existing alignments. All proposed development would conform to state and local regulations for proximity to gas and petroleum lines.

Crude Oil Pipeline Rupture

In December 2003, the 18-inch-diameter Chevron crude oil pipeline located in the southwestern portion of the project site was ruptured during ripping of the soil for agricultural purposes. An estimated 750 barrels (31,500 gallons) of crude oil were released to site soils.

Emergency response activities were conducted by Chevron in an attempt to limit the migration of crude oil. Emergency response activities consisted of the creation of soil berms to restrict the lateral migration of oil, the recovery of free oil with a vacuum truck, and removal of some oil-impacted soil. It is estimated that approximately 350 barrels (14,700 gallons) of crude oil still remain in site soils.

Subsequent soil and groundwater investigations were performed by Kleinfelder, Inc., in May 2004 for the purpose of assessing the limits of contaminated soils and groundwater quality beneath the location of the ruptured pipeline. A total of 29 push probes were used to extract 22 composite soil samples, 26 discrete soil samples, and four groundwater samples. The samples were submitted for chemical analyses for purgeable and extractable petroleum hydrocarbons and benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds.

Laboratory results indicate that petroleum-impacted soil has not migrated laterally a significant distance beyond the footprint area. The area of impacted soil has been estimated at 2.2 acres, with the majority of the oil settling to the east and northeast of the rupture. According to the follow-up investigations, it is estimated that a final excavation volume of approximately 47,000 cubic yards will need to be removed from the oil spill footprint during

remediation activities. Remedial excavation depths will range from 12 to 20 feet below ground surface (bgs) (Kleinfelder, 2004).

Relatively low concentrations of petroleum constituents were detected in two of the four groundwater samples taken from the site. Concentrations of petroleum constituents in groundwater were found to be below state and federal drinking water Maximum Contaminant Levels (MCLs). No additional monitoring activities related to petroleum constituents detected in groundwater were recommended (Kleinfelder, 2004).

Additional Exterior Site Observations

Additional site conditions observed during the site reconnaissance are listed below:

- Five-gallon buckets of waste oil were observed along the western wall of the produce stand. Empty 5-gallon buckets were seen throughout the produce stand and residential trailer areas.
- Two domestic wells and two septic tanks exist near the eastern edge of the site, near the produce stand and residential trailer.
- Several mobile fertilizer tanks were observed at the site. According to the previous landowner, the fertilizers are not stored on-site and the fertilizer tanks are rented on a seasonal basis. The fertilizer tanks did not appear to be leaking at the time of the site reconnaissance.
- Several soil piles were noted along the southwestern bank of Canal 155. According to the previous landowner, the soil is silt and topsoil that has been dredged out of the irrigation canal. The dredged soil was previously piled along the irrigation canal to dry out and later spread out over different areas.
- A settling pond was observed at the northeastern corner of the site. The settling pond is used to settle out sediment and particulate matter from site runoff prior to discharge to downstream waters. A large soil pile and wet area are located along the northeastern edge of the site. This is soil that has been removed from the settling pond that is later spread out throughout the site.

Environmental Database Search

An electronic file search of available electronic records was conducted for the portion of the study area subject the Tentative Map application by Environmental Data Resources (EDR) on behalf of Kleinfelder, Inc. The search, encompassing all mapped hazardous and potentially hazardous sites in the vicinity of the project site, was conducted using the search requirements of the ASTM for Environmental Site Assessments. Search distances for each of the individual databases vary and are dependent on ASTM standards.

The project site was not listed on any regulatory agency databases researched by EDR. Furthermore, there are no off-site facilities within the appropriate search distances that appeared on the ASTM regulatory agency databases researched by EDR. It should be noted

that due to the timing of the crude oil pipeline rupture (after preparation of the Phase I ESA), the incident did not appear in any of the environmental databases.

Historical Use of Agricultural Chemicals

Agricultural chemicals (also referred to as agri-chemicals) are classified as "restricted" and "non-restricted." There are several local, state and federal laws regulating the use of agricultural chemicals. In San Joaquin County, compliance with such laws is monitored primarily by the San Joaquin County Agricultural Commissioner's Office (SJCACO). The SJCACO requires that farmers using "restricted" chemicals obtain Private Applicator Certification and a Restricted Materials Permit. Private Applicator Certification is renewed every three years upon completion of a safety course on pesticide use and hazards. The Restricted Materials Permit gives farmers with Private Applicator Certification the right to possess and use "restricted" chemicals. Farmers are also required to submit a Notice of Intent (NOI) for both "restricted" and "non-restricted" pesticide usage at least 24 hours before the application of such agri-chemicals. Every month, farmers are required to submit a Monthly Pesticide Use Report that provides specific information on the date, time, pesticide name, pesticide dilution, total area treated and rate of application.

The SJCACO maintains Pesticide Use Reports and Restricted Materials Permits on file for a period of five years. Table 4.7-1 lists agricultural chemicals preciously used at the project site. Due to past agricultural land uses at the project site, Kleinfelder, Inc., recommended shallow soil sampling for persistent agri-chemicals at the project site. The results of this subsequent analysis are described below.

Table 4.7-1
Agricultural Chemicals Used at the Project Site

2, 4-D Amine	Guthion	Sevin
Aluminum Phosphate	MCPA, Dimethyla	Strychnine
Amitrole	Methomyl	Supracide
Chloropicrin	Methyl Bromide	Thimet
Dicamba	Paraquat	Zinc Phosphide
Di-Syston		

Source: Kleinfelder, Inc. 2002. *Phase I Environmental Site Assessment, Mountain House Parkway, Mountain House, California*.

Site Contamination Analysis – Past Agricultural Land Uses

Potential contamination issues and contaminant exposure levels associated with historical land use practices at the project site were evaluated in the *Limited Soil Sampling and Analysis* report prepared by Kleinfelder in 2003.

Agricultural chemical contamination levels at the project site were analyzed by soil sampling and laboratory analysis. The soil samples were analyzed for organochlorine pesticides. These substances are generally referred to as persistent organic pollutants (POPs), many of which have been banned. POPs are absorbed into water, air, and soil. They are taken in and

stored in the tissues of fish and animals, eventually making their way to the top of the food chain. A number of POPs have been linked to birth defects and cancer in animals.

A total of 24 discrete soil samples were collected over the subject site. The sampling was conducted in an attempt to collect representative samples of the subject site and in differing crop areas. Soil samples were collected at depths ranging from 0 to 12 inches. The 24 soil samples were composted into eight 3-point composite samples by the analytical laboratory. No organochlorine pesticides were detected in the eight 3-point samples submitted for analysis at or above laboratory reporting limits. Because no organochlorine pesticides were detected, there were no chemicals of potential concern identified. For this reason, a human health risk assessment was not conducted for the subject site.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identified significant and potentially significant public health and safety impacts of the Master Plan related to the following:

M4.10-1 Public and environmental health may be affected by potential historic pesticide and/or herbicide residues in the environment, as well as by future pesticide and/or herbicide applications off-site.

M4.10-2 Potential health impacts may result from public exposure to PCBs associated with transformers or electromagnetic fields associated with overhead electrical lines.

M4.10-3 Asbestos, if present in existing farm structures, could cause adverse health impacts to workers during renovation and/or demolition.

M4.10-4 Materials disposed of at the small household landfill on the [Mountain House community] site may have affected soil and groundwater quality.

M4.10-5 Open water bodies within the project site could provide active breeding sites for mosquitoes, potentially causing an environmental nuisance condition and disease transmission.

M4.10-6 The development of the project may increase the potential for public exposure to explosives, fire, or the release of materials during railway accidents on the railway line crossing the northern portion of the project site.

M4.10-7 Increased development along the natural gas pipelines traversing the site could increase the risk of pipeline rupture and fire or explosion which could result in death and injury or property damage.

M4.10-8 Improperly abandoned wells, wells without appropriate sanitary seals, and agricultural canals may act as conduits for agricultural chemical migration, potentially affecting surface and groundwater quality, or may represent a safety hazard.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

In response to potential hazards associated with residual pesticides and/or herbicides, the Master Plan was changed to require that an ESA prepared in accordance with ASTM standards be submitted with the submittal of each Tentative Map to assess the presence of any state or federal listed toxic materials (i.e., fuel, pesticide, herbicide, or chemical residue) in the soil. If any residues are found in excess of the allowable amounts, a program of corrective action must be implemented prior to recordation of a final map. Corrective actions must be conducted in accordance with the requirements of the County Environmental Health Department and all applicable state agencies. The project applicant has been in compliance with this requirement.

It should be noted that the 1994 MEIR recommended that aerial spraying be restricted within 500 feet of the nearest dwelling along the western site boundary [of the Mountain House community]. This component of MEIR Mitigation Measure 4.10-1 was found unnecessary due to the setbacks of residences from the western site boundary.

The following measures were adopted into the Master Plan to address potential health impacts associated with public exposure to PCBs: (1) Prior to each development permit submittal, the developer is required to request that PCB-containing electrical transformers be replaced with non-PCB-containing equipment and that any identified spill areas be evaluated for cleanup; and (2) The developer shall prepare an annual information packet that includes a summary of major studies regarding Electric and Magnetic Field effects and a list of reference studies. There are no overhead power lines at the project site, thus no electrical transformers containing PCBs exist. Power lines extending along Mountain House Parkway in front of the site have become a part of the MHCSD.

The 1994 MEIR also recommended that any metal structures or objects within and adjacent to transmission line easements be grounded to avoid nuisance induction effects such as shocks. This component of MEIR Mitigation Measure 4.10-2 was found to not be feasible in the findings adopted for the 1994 MEIR.

The following implementation measures was adopted into the Master Plan to address potential impacts associated with asbestos-containing building materials in existing structures: (1) All existing structures must be tested for asbestos-containing materials prior to demolition. If asbestos is present, demolition shall be performed by a licensed asbestos abatement contractor; and (2) A demolition permit shall be required prior to all proposed building demolition. Existing structures on the project site were not tested for lead or asbestos during preparation of the Phase I ESA nor the *Limited Soil Sampling and Analysis* report, but will need to be tested prior to demolition.

The 1994 MEIR recommended that general criteria, standards and maintenance schedules for mosquito abatement be developed in consultation with the Mosquito Abatement District and be incorporated into maintenance requirements for the project. At the time of preparation of

this Initial Study (February 2005), a project-specific operations and maintenance program that describes mosquito abatement and other maintenance activities that would be necessary for the continued effectiveness of WQB #1 had not yet been prepared.

In response to hazards associated with the risk of pipeline rupture or explosion during and after project construction, the Master Plan adopted the following implementation measures: (1) the requirement that a Pipeline Safety Plan be a part of the Incident Action Plan, and (2) the requirement that vapor barriers and/or vents be included in the utility trench design. The design of the utility trenches shall be reviewed and evaluated by the San Joaquin County Department of Public Works (SJCDPW) prior to final map approval. At the time of preparation of this Initial Study (February 2005), an Incident Action Plan describing pipeline safety had not yet been prepared. It should be pointed out that a *Pipeline Risk Analysis* for the Specific Plan III area (J. House Environmental, 2004) has been completed, but this document does not provide recommendations for emergency response. Thus, a Pipeline Safety Plan had also not been prepared. The Master Plan also requires that the owners of buried pipelines review development plans at the Tentative Map stage.

The 1994 MEIR recommended that potential contamination of surface and ground water by improperly abandoned wells, wells without sanitary seals, and agricultural canals be addressed by requiring that: (1) site assessments include an investigation of the location and condition of currently used and abandoned water wells; and (2) on-site agricultural canals and ditches be properly fenced and screened by the developer as required by the Byron Bethany Irrigation District (BBID) to eliminate site hazards. The location and condition of existing water wells on the project site were discussed in the Phase I ESA report. Existing on-site agricultural ditches and Canal 155 will be removed and filled prior to development. Thus, fencing of agricultural canals is not necessary.

DISCUSSION REGARDING PROPOSED PROJECT

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

During project construction, minor amounts of hazardous materials would be transported through the project area. Construction activities typically involve the use of potentially toxic substances, such as paints, fuels, and solvents. Construction activities would be subject to federal, state, and local laws and requirements designed to minimize and avoid the potential health and safety risks associated with hazardous materials. Furthermore, a Storm Water Pollution Prevention Plan (SWPPP) would be required of the applicant to obtain coverage under the Phase I NPDES permit (see Section 4.8: Hydrology and Water Quality) and would outline methods to protect against the accidental release of construction-related chemicals into site runoff.

Commercial and industrial businesses that would be established as part of the proposed project could result in a change in the nature of hazardous materials transported, stored and used on-site. Each business would have specific permit and reporting requirements under various federal, state, and local regulations associated with the proper transport, use, storage, and disposal of hazardous materials and wastes. In addition, the Master Plan requires that an

Incident Action Plan shall be prepared for all of Mountain House that addresses emergency responses in the event of a hazardous spill. The preparation of this Plan will be the responsibility and maintenance of the MHCSD. No significant impacts related to the transport, use, or storage of hazardous materials are anticipated.

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

The project site has been in agricultural production since the 1940s. Potential contamination of site soils associated with the use of agri-chemicals at the project site was assessed in the *Limited Soil Sampling and Analysis* report (Kleinfelder, 2003).

Several fuel-related pipelines cross the project site. There is a potential for pipeline rupture or explosion during and after construction. A buffer zone of 1,500 feet from natural gas pipelines is required of K–8 schools. The Master Plan requires that a Pipeline Safety Plan be incorporated into the Incident Action Plan for the Mountain House community. The responsibility for preparation, implementation, and maintenance of the plan is the responsibility of the MHCSD.

Three fuel-related ASTs were observed at the project site during the site reconnaissance conducted during the preparation of the Phase I ESA. The ASTs were later removed and the soil was tested for the presence of diesel/gasoline constituents. Diesel/gasoline impacted soil beneath the three ASTs was removed, and confirmation soil samples were taken from the excavation footprint. According to Kleinfelder, the concentration of petroleum constituents detected in the confirmation soil samples did not trigger additional remediation activities. No additional impacts associated with the fuel-related ASTs were identified.

Lead-containing paint (LCP) and/or asbestos-contaminated material (ACM) are typical constituents found in older building. The site contains a barn, sheds, caretaker's residence and three house trailers. In August 2003, Kleinfelder conducted a pre-demolition asbestos and lead paint survey of the permanent structures (excluding the three house trailers) at the project site. A total of 14 samples suspected of ACM were collected from five different types of material, and six paint chip samples of suspected LCP were collected. The laboratory analysis did not detect asbestos contaminated materials in any of the 14 bulk samples. Lead was detected at 100 parts per million (ppm) in a sample of white paint taken from one of the sheds and less than 100 ppm in five other samples analyzed. This is below federal standards for defining lead-based paint. Kleinfelder concluded that lead is present on approximately 30 square feet of white paint on the exterior of the well shed. This is not considered to be a significant health hazard because the detection numbers are below federal standards and the paint was found to be intact. No special demolition procedures are required for the removal of the painted surface.

During the site reconnaissance, Kleinfelder observed a large soil pile and wet area along the northeastern edge of the project site. The wet area is a settling pond; a water quality BMP used to collect and hold silt and nutrient-laden runoff from agricultural operations and prevent such runoff from depositing in downstream waters. Since Kleinfelder conducted the

Phase I survey, the pond has been removed and the site graded as a part of the overall Mountain House community improvements. No further analysis is required.

Several soil piles were observed along the southwestern bank of Canal 155. The soil piles consisted of silt and topsoil dredged out of Canal 155, and placed adjacent to the canal to dry out prior to spreading out the soil over the land. Kleinfelder conducted soil samples of the soil piles to check for hazardous materials and/or petroleum products. Contaminant levels were below federal and state standards.

Mitigation Measures

No mitigation measures are required.

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

The proposed project does not include the construction of a K–8 school. The closest K–8 school from the project site would be located approximately 1,000 feet northwest in Neighborhood B. It is likely that potentially hazardous materials would be handled during project construction. However, these materials would be handled in accordance with local, state, and federal laws and requirements.

Mitigation Measures

No mitigation measures are required.

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

The project site was not included on a list of hazardous materials sites during the environmental database review in 2002.

Since then, the crude oil pipeline in the southwestern corner of the property was ruptured, resulting in the accidental release of approximately 750 barrels of crude oil to site soils in December 2003. It is estimated that approximately 350 barrels of crude oil still remain on the project site.

Emergency response activities were performed following the pipeline rupture by Chevron. Emergency response activities involved the recovery of free oil (approximately 400 barrels) and the construction of soil berms to restrict lateral migration of oil. Subsequent soil and groundwater investigations were performed by Kleinfelder in May 2004. The concentrations of petroleum constituents in groundwater were detected below state and federal drinking water MCLs. No additional groundwater monitoring activities were recommended.

Laboratory results indicate that the petroleum-impacted soil has not migrated laterally a significant distance from the oil spill footprint area. However, field indications and analytical results indicate significant petroleum-impacted soil exists north and east of the Chevron crude oil pipeline rupture area at depths ranging from 5 to 12 feet bgs. A portion of significant petroleum impacted soil was also noted west and immediately south of the rupture area. The total surface area of impacted soils is estimated at 2.2 acres. Kleinfelder recommends that approximately 47,000 cubic yards of soil be removed from the oil spill footprint area to remediate the site. Remedial excavation depths are estimated at ranging between 12 to 20 feet bgs. Petroleum contamination at the project site represents a potentially significant impact.

Kleinfelder submitted a revised remediation plan (Kleinfelder, 2004) to the San Joaquin County Environmental Health Department (SJCEHD) which was approved (SJCEHD, 2004). The plan details the scope of work for the soil excavation, observation, sampling and analysis of the contaminated soil taken from the project site. Kleinfelder anticipates the entire process to take approximately 9 weeks to when their report is submitted to their client (the applicant). As of April 2005, the applicant was moving forward with obtaining a conditional permit and a contractor has been retained to off-haul the contaminated soils to a Class II landfill to the extent necessary for issuance of a No Further Action letter by the Department of Toxic Substances Control (DTSC).

Mitigation Measures

No mitigation measures are required.

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

The project site is not located within the boundaries of an airport land use plan. The nearest airport is the Byron Airport that is located approximately 5 miles northwest of the project site. The Byron Airport does not pose health risks to future residents of the Specific Plan II area. However, the *Contra Costa County Airport Land Use Compatibility Plan* shows that portions of the Mountain House Community are located within Zone D. Structures in this zone shall stand no taller than 100 feet to ensure that no safety concerns exist. No structures in the project site are proposed to exceed 100 feet in height (Contra Costa County Airport Land Use Commission, 2000).

No impact to airport land use plans would occur.

Mitigation Measures

No mitigation measures are required.

f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No impact to private airstrips would occur.

Mitigation Measures

No mitigation measures are required.

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

The proposed project would not interfere with an emergency response plan or emergency evacuation plan. An Incident Action Plan for the Mountain House community will be prepared by the MHCSD.

Mitigation Measures

No mitigation measures are required.

h) 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?

No impact from wildland fires would occur.

Mitigation Measures

No mitigation measures are required.

Conclusions

There are no significant hazardous effects not previously examined in the MEIR with the exception of the petroleum spill that occurred since preparation of the MEIR. The applicant filed a remediation plan to clean up the spill, which has been approved by the County Environmental Health Department. Cleanup of the spill will begin in early Spring 2005. No other hazardous materials were found on the site that exceeded federal and state standards (e.g. lead-based paint or asbestos, PCBs, agricultural chemicals or concentrations of petroleum constituents. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. Although information regarding the petroleum spill is new since the MEIR was certified, the issue has been identified and remediation is proceeding. There is no other new available information that was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

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Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
8. HYDROLOGY AND WATER QUALITY. Would the project:					
a) Violate any water quality standards or waste discharge requirements?					
b) 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)?					
c) 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?					
d) 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?					
e) 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?					
f) Otherwise substantially degrade water quality?					
g) 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?					
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?					

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?					
j) Inundation by seiche, tsunami, or mudflow?					

SETTING

Introduction

This section of the Initial Study addresses the potential hydrologic and water quality issues associated with the development of the Mountain House Business Park. The Hydrology and Water Quality section assesses if there are any additional hydrology and water quality impacts that may require further mitigation not previously addressed in the MEIR.

Climate and Topography

The Mountain House Business Park is located on the western edge of the San Joaquin River Valley, on the southeastern corner of the greater Mountain House Community. Average annual rainfall in the vicinity of the project site is approximately 12 inches. Average temperatures generally range from 38 degrees Fahrenheit in winter months to 93 degrees Fahrenheit in summer months (Western Regional Climate Center, 2002).

The ground surface on and around the project site is generally level and slopes gently (approximately one percent) northeast towards Old River. Ground elevations at the project site range from 120 feet above mean sea level (MSL) at the northeast corner to 165 feet above MSL in the southwest corner of the project site.

Geology and Soils

The project site is located in the San Joaquin River Valley of the Great Valley geomorphic province, just northeast of the Altamont Hills. The Great Valley is a large depression that has been partially filled by alluvial and marine deposits consisting of gravels, sands, silts, and clays.

The permeability and texture of on-site soils influence drainage patterns at the project site. Soil permeability is the rate at which water is absorbed under saturated conditions and is related to the hydraulic conductivity of the soil. According to the Soil Survey of San Joaquin County, site soils are predominantly clay loams belonging to the Capay series (USDA, 1999). Capay soils are moderately well drained soils that formed in alluvium derived from mostly

sandstone and shale. These soils are classified as having a high shrink-swell potential, slow permeability, and a slight hazard of water erosion.

Surface Hydrology

Regionally, the project site is located within the San Francisco Bay/Sacramento-San Joaquin River Delta System. The Sacramento-San Joaquin Delta is the largest estuary on the west coast and drains more than 40 percent of the water in California. The Delta system, consisting of over 1,100 square miles, lies at the confluence of the southward-flowing Sacramento and northward-flowing San Joaquin rivers. The Delta is a flat, low-lying network of 57 islands, interconnected by 700 miles of waterways. The Delta and its watershed are an important source of drinking water and irrigation water in California.

Locally, the project site is located in the Mountain House Creek watershed. Mountain House Creek drains an area of approximately 6.5 square miles. The creek has its headwaters approximately 6.5 miles southwest of the project site in the Altamont Hills. The creek flows in a general northeast direction to drain pipes that pass over the California Aqueduct and the Delta Mendota Canal. The creek continues northeast, traversing the Neighborhood E site and forming the easternmost boundary of the Neighborhood G site. The creek is conveyed beneath Byron Road, across Neighborhood L, and eventually discharges into Old River. Restoration improvements to Mountain House Creek described later in this section are expected for completion by December 2004 (Karimoto, 2004).

Currently, drainage infrastructure at the project site is limited to drainage ditches and pipelines that convey runoff and excess irrigation water into larger collectors. The existing project drainage system can be divided into two zones: the land to the north of Irrigation Canal 155 (North Drainage Area) and the land to the south of Irrigation Canal 155 (South Drainage Area).

Storm water runoff from the North Drainage Area is handled by a series of drainage ditches and pipelines that ultimately discharge runoff and excess irrigation water to a settling pond located at the northeast corner of the project site. The settling pond helps to settle out sediment and particulates from site runoff prior to discharge to the 48-inch-diameter Westside Irrigation District (WSID) pipe that conveys flows to the WSID Upper Main Canal. The WSID canal conveys flows north along Mountain House Parkway to Water Quality Basin (WQB) #1. WQB #1 is an existing basin located at the northeastern corner of Byron Road and Mountain House Creek. Flows from WQB #1 ultimately discharge into Mountain House Creek.

Runoff from the northern portion of the South Drainage Area drains into a drainage ditch that runs parallel to Canal 155. This water is discharged into Canal 155 via two 8-inch-diameter pipelines and then flows north within an existing collector ditch along Mountain House Parkway to the settling pond at the northeastern corner of the property. Storm water runoff from the southerly portion of the South Drainage Area drains to a drainage ditch that crosses in a southeasterly direction across the southeastern corner of the property, to the collector ditch along Mountain House Parkway, and then to the settling pond. Like the North

Drainage Area, all runoff from the South Drainage Area ultimately flows to WQB #1 and Mountain House Creek.

100-Year Floodplain

The project site is located outside of the 100-year floodplain of Old River, as mapped by the Federal Emergency Management Agency (FEMA, 1996).

Groundwater

The Department of Water Resources (DWR) defines state groundwater basins based on geologic and hydrogeologic conditions. According to the DWR, the project site is located within the Tracy groundwater subbasin. The subbasin has an area of approximately 540 square miles and is drained by the San Joaquin River and Corral Hollow Creek. Primary water-bearing formations in the subbasin include semi-consolidated deposits of clay, silt, and gravel of the Tulare Formation, flood basin deposits, and older and younger alluvium (DWR, 1975).

The water quality of the Tracy subbasin is somewhat impaired. Areas of poor water quality exist throughout the subbasin and elevated levels of chloride and nitrate have been encountered in the vicinity of the City of Tracy. According to the 1994 MEIR, elevated levels of total dissolved solids (TDS), nitrates, and sulfides have been encountered in groundwater resources in the vicinity of the project site. The high levels of TDS may be the result of saltwater intrusion from the Delta. Relatively high levels of nitrates may be the result of poor livestock management in the surrounding area and/or releases from household septic systems (SJCCDD, 1994).

Generally, groundwater flows as a subdued reflection of the surface topography. Depth to groundwater is expected to fluctuate in response to both seasonal rainfall and irrigation of surrounding farmland. Hydrographs for the Tracy subbasin indicate that the majority of the water levels in wells within the subbasin have remained relatively stable over time (DWR, 1975). Groundwater was not encountered in any of the 18 subsurface investigations performed at the project site in September 2002. However, laboratory soil results performed at this time did indicate the presence of groundwater at a depth of about 38 feet below ground surface (bgs) at one of the borings in the southern portion of the site (Kleinfelder, 2002).

Soil and groundwater investigations were performed in May 2004 at the southwestern portion of the project site in response to the rupture of an 18-inch-diameter Chevron crude oil pipeline at the site (see “Crude Oil Pipeline Rupture” discussion in Section 4.7: Hazards). The purpose of the investigations was to assess the limits of contaminated soil and groundwater beneath the ruptured pipeline. Four deep groundwater probes with total depths ranging from 44 to 58 feet bgs encountered groundwater at approximately 43 feet bgs. A total of four groundwater samples were taken, one in the footprint area and three from perimeter locations. Relatively low concentrations of petroleum constituents were detected in two of the four groundwater samples collected at the site. While the extent and distribution of hydrocarbons in groundwaters is unknown at this time, hydrocarbon concentrations at the site were well below state and federal Maximum Contaminant Levels

(MCLs). For this reason, additional groundwater remediation and monitoring associated with hydrocarbon contamination have not been recommended (Kleinfelder, 2004).

Master Drainage Plan

Conceptual drainage improvements for the Specific Plan I area as a whole were described in the *Mountain House Master Drainage Plan* (PACE, 2002) and updated in the *Storm Water Master Plan Update, Addendum I* (PACE, 2004). New drainage infrastructure that would be implemented to convey runoff from the project site includes primary and secondary storm drain systems, improvements to WQB #1, and improvements to Mountain House Creek. The first flush of runoff from the project site is considered "urban" runoff, and would be treated in WQB #1 prior to discharge to the downstream waters of Mountain House Creek and Old River.

The primary storm drain system would provide conveyance of all off-site runoff and on-site runoff and includes trunk storm drain pipes (72-inch-diameter and larger), WQB #1, and Mountain House Creek. The primary storm drain system would be designed for the 100-year flood capacity to the point of terminal discharge at Old River.

The secondary storm drain system would be sized for the 10-year storm event. This system would be located within the local and collector streets and would consist of gutters, local drainage swales, minor channels, catch basins, catch basin laterals, and smaller storm drain pipes (less than 72-inch-diameter). This system would transport on-site drainage to trunk storm drain lines.

WQB #1 would capture and treat "urban" runoff from the Business Park, the Town Center, industrial areas between DeAnza Boulevard and Mountain House Parkway, and Neighborhoods C, D, and F. The basin would store first-flush runoff for a minimum of 24 hours prior to discharging by gravity through a low flow and overflow system to Mountain House Creek immediately north of Byron Road. Although WQB #1 is an existing basin, once improvements are completed, the basin will have a 13-acre surface area and 56 acre-feet of storage capacity.

Restoration improvements to Mountain House Creek were designed to provide adequate flood protection and water quality benefits for the development of Mountain House. The improvements were sized to convey the 100-year storm event and to accommodate runoff resulting from a sudden and complete failure of two earthen dams located upstream of the project site in Alameda County. Restoration improvements to Mountain House Creek were evaluated in the Initial Study for Neighborhoods E and G (SJCCDD, 2003) and are expected for completion in December 2004 (Karimoto, 2004).

Farm Irrigation Drainage and Canal 155

The project site is primarily agricultural land. The existing farm irrigation distribution and irrigation drainage system is a combination of low-pressure pipelines and gravity facilities including ditches and furrows that will all be removed and/or abandoned as the site is developed.

Proposed modifications to the irrigation system include removal and/or abandonment of all Byron Bethany Irrigation District (BBID) and private facilities including gates, pipelines, meters, ditches, culverts, and settling pond. The Mountain House Community Services District (MHCSD) master planned drainage infrastructure will be extended from the intersection of Mascot Boulevard and DeAnza Boulevard to serve the project site. The project drainage system will be designed in accordance with MHCSD standards, and will be sized for the 10-year storm event, while safely conveying the 100-year storm event to the final point of discharge at Old River.

Canal 155 traverses the site from the northwestern boundary of the site to the southeastern boundary of the site. Canal 155 provides irrigation water to an existing farm located east of the project site. Modifications to the irrigation system include abandonment and backfill of Canal 155. Under post-development conditions, irrigation water will be conveyed to the farm east of the project site via a transfer of service provider from BBID to the WSID. A proposed pump station will be installed at the WSID irrigation canal and a lower pressure irrigation pipeline constructed to serve the eastern farm.

Lake Features

The proposed project includes two lake features with fountains on parcels 2 and 20. The lake features would have a surface area of 14,010 square feet and 129,500 square feet, respectively. The lake features would be created for aesthetic purposes only and would not be hydrologically linked to the storm drain system. The lakes will have adequate freeboard to contain rain falling on the lake surfaces. The lake features are not intended for retention purposes. Water for the lake features would be raw water derived from BBID that would be recycled within each lake feature. At the time of preparation of this Initial Study (February 2005), the design of the lake features had not been completed.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identified significant and potentially significant hydrological/water quality impacts of the Master Plan related to the following:

M4.7-4 Shallow groundwater conditions presenting adverse conditions for construction of foundations and detention/retention basins. Project could result in elevation of groundwater levels due to removal of subsurface drains.

M4.7-6 Deposition of sediment transported by Mountain House Creek could be deposited within project site, potentially interfering with flood control and the enhanced habitat function of the Mountain House Creek corridor. If transported to Old River, sediment could have adverse impacts on downstream water quality.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

The following mitigation measures where adopted into the Master Plan to mitigate project impacts associated with erosion and sedimentation: (1) construction of sedimentation basins and other effective sediment control structures (i.e., water quality ponds) to effectively

remove sediment associated with runoff from the project site [Policy 7.2.8j]; and (2) development of a basin maintenance program that describes maintenance activities that would be necessary for continued effectiveness of basins [Policy 15.6a].

The 1994 MEIR recommends that potential project impacts associated with shallow groundwater levels be mitigated through the preparation of a Preliminary Soils Report (i.e., Geotechnical Engineering Report) for each Tentative Map area to determine seasonal groundwater levels and provide appropriate design recommendations [Section 6.8.3]. No groundwater was encountered in September 2002 during subsurface investigations prepared for the *Preliminary Geotechnical Services Report* for the project site (Kleinfelder, 2002). While subsequent groundwater investigations in May 2004 encountered groundwater at 43 feet bgs, at this depth, groundwater levels do not pose a risk to structures and/or foundations.

DISCUSSION REGARDING PROPOSED PROJECT

a) Violate any water quality standards or waste discharge requirements?

During project construction, grading operations would result in the removal of on-site soil cover and the exposure of soils to the erosional forces of rainfall and runoff. The project would be required to comply with the Phase I National Pollutant Discharge Elimination System (NPDES) permit program. The Phase I NPDES storm water program, administered by the State Water Resources Control Board's (SWRCB) Division of Water Quality, regulates storm water discharges from major industrial facilities, large and medium-sized municipal separate storm sewer systems (those serving more than 100,000 persons), and construction sites that disturb 5 or more acres of land. Under the program, all disturbances of 5 acres or more are required to implement Best Management Practices (BMPs) to prevent the off-site migration of sediment-laden runoff.

The site-specific plan to implement the erosion control BMPs is called the Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would also include BMPs for preventing the discharge of other pollutants (i.e., paint, concrete, petroleum hydrocarbons) from the project site during the construction period.

Upon project completion, WQB #1 would serve to treat storm water runoff from the project prior to discharge to Mountain House Creek and Old River. WQB #1 would help to settle out sediment and particulates from runoff, as well as trace metals, nutrients and hydrocarbons, as these pollutants tend to adhere to soil particles. The water quality ponds would require periodic maintenance including desilting, vegetation clearing, and trash and debris removal. A Maintenance and Operations Manual for WQB #1 has been prepared by the MHCSD as required by the Master Plan. The manual describes sediment basin and water quality pond maintenance activities (including mosquito abatement), access and maintenance to access roads, desilting, vegetation clearing, and trash and debris removal, to ensure the continued maintenance of the ponds. The MHCSD will expand the existing plan to include water quality ponds in Mountain House Creek and Dry Creek.

Commercial and industrial facilities may also be required to implement additional water quality BMPs, depending on the operations that are proposed at each facility. Commercial

and industrial BMPs would be determined on a case-by-base basis and approved by the Mountain House Community Services District (MHCSD).

WQB #1 will require maintenance, including vegetation clearing and trash and debris removal. As a condition of project approval, the applicant will be required to prepare a maintenance and operations manual.

Master Plan Policy 15.7 (Implementation [a]) states that Mountain House shall implement a long-term SWMP to reduce the discharge of pollutants from the storm sewer system to the maximum extent practicable and protect water quality in the receiving waters. At a minimum, the Master Plan states that the SWMP shall include the following elements: (1) public education and outreach on storm water impacts; (2) public involvement/ participation; (3) illicit discharge detection and elimination; (4) construction site storm water runoff control; (5) post-construction storm water management; and (6) pollution prevention/good housekeeping for municipal operations. A SWMP was prepared on behalf of the MHCSD by West Yost and Associates in April 2001. The SWMP identifies a list of water quality BMPs and provides recommendations for the MHCSD's storm water quality ordinance. At the time of preparation of this Initial Study (February 2005), a storm water quality ordinance has not been developed, but will be developed by the MHCSD in the near future.

b) 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)?

The proposed project would result in a substantial increase in impervious surface areas and could reduce the amount of on-site aquifer recharge. However, groundwater quality in the vicinity of the project site is considered marginal, with relatively high levels of total dissolved solids (TDS), nitrates, and sulfides detected in wells in the area (SJCCDD, 1994).

The farmland surrounding the project site is irrigated primarily by agricultural irrigation ditches and not by groundwater wells. Therefore, while project development would result in an increase in impervious surfaces over a recharge area, any slight change in groundwater levels would not affect surrounding farmland.

As stated in the Chapter 2: Project Description, the applicant has entered into an agreement with BBID to obtain an adequate water supply for the project site. Finally, a service agreement between MHCSD and BBID will ensure adequate water supplies for the project site. BBID's water supply is primarily from surface water sources. The installation of new wells is not part of the proposed project and, thus, little or no groundwater would be used for the project's water supply.

Mitigation Measures

No mitigation measures are required.

c) 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?

Development of the proposed project would substantially alter the existing drainage patterns of the project site in such a way that could potentially result in erosion during and after construction. During the construction period, grading operations would result in the removal of on-site soil cover and the exposure of site soils to the erosional forces of runoff. Under the Phase I NPDES permit requirements, the applicant is required to prepare a SWPPP to mitigate soil erosion and sedimentation resulting from construction activities.

Once the project is completed, the increase in impervious surface area resulting from project development would increase the amount of runoff leaving the site. The on-site runoff would be conveyed via the secondary storm drain system to the main storm drain pipe located along Mountain House Parkway, treated in WQB #1, and subsequently discharged into Mountain House Creek.

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.7-6, which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

d) 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?

Development of the project site would substantially alter existing drainage patterns, increase the amount of impervious surface area, and result in an increase in runoff from the development area. According to the Storm Water Master Drainage Plan (PACE, 2002), project development would result in a 122 cubic feet per second (cfs) increase in peak runoff during the 100-year storm event. However, new drainage infrastructure to serve the project site and surrounding properties has been designed to safely convey flows resulting from the 100-year storm event all the way to the point of discharge at Old River.

Mitigation Measures

No mitigation measures are required.

e) 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?

Runoff quantity and the adequacy of the stormwater drainage system are addressed under Checklist item d), above. Due to the current agricultural land uses at the project site, it is likely that the non-point source (NPS) pollutants currently found in site runoff are sediment, nutrients, pathogens, and oxygen-demanding solids. Post-development land use conditions at

the site would be comprised of office space, retail, restaurants, gas station, lodging, and light industrial uses. The conversion of the project site from agricultural uses to urban uses would likely result in a decrease in sediment and nutrients in the site runoff and likely result in an increase in the levels of oils, grease, metals, and petroleum hydrocarbons.

As described earlier in this section, all "urban" water originating from the project site would be treated in WQB #1 prior to discharge downstream to Mountain House Creek and Old River. WQB #1 would allow for the settlement of sediments and particulates, as well as trace metals, nutrients, and hydrocarbons that tend to adhere to soil particles. Additionally, water quality BMPs for commercial and industrial uses that generate polluted runoff that would not be adequately treated by WQB #1 would also be required. These BMPs would be determined on a case-by-case basis and approved by the MHCSD. Additionally, the Mountain House Monitoring Program (MHMP) requires that all industrial and commercial property uses have on-site BMPs.

The MHCSD has created a Water Quality BMP (PACE, 2004) manual that provides storm water quality guidelines that may be implemented in some areas of the project site. This manual can be used by industrial and commercial businesses as a guideline for determining appropriate water quality BMPs to be implemented at their facilities.

Project-related impacts related to runoff quality and quantity are considered less than significant due to mitigation measures in the project description.

Mitigation Measures

No mitigation measures are required.

f) Otherwise substantially degrade water quality?

See responses to Checklist items a), c) and e).

Mitigation Measures

No mitigation measures are required.

g) 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?

This is not relevant since there is no housing contained within the development proposal. Furthermore, current FEMA maps for San Joaquin County indicate the project site is located outside of the 100-year floodplain for Old River.

Mitigation Measures

No mitigation measures are required.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

See discussion for Checklist item g), above.

Mitigation Measures

No mitigation measures are required.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?

See responses to Checklist items d) and g), above.

Mitigation Measures

No mitigation measures are required.

j) Inundation by seiche, tsunami, or mudflow?

A seiche is a rhythmic motion of water in a partially or completely landlocked water body caused by landslides, earthquake-induced ground accelerations, or ground offset. The project site is not located in an area that would be susceptible to inundation by seiches. The project site is not located in an area that is vulnerable to tsunamis of mudflows. Therefore, there are no project impacts related to inundation by seiches, tsunamis, or mudflows.

Mitigation Measures

No mitigation measures are required.

Conclusions

There are no significant hydrology and water quality impacts that were not previously examined in the MEIR. Implementation measures contained in the Master Plan and Specific Plan I, as well as mitigation measures and conditions of project approval, address impacts associated with water quality standards, increased runoff, and drainage facilities. The drainage facilities for the Mountain House Business Park will comply with the requirements of the Master Plan and Specific Plan I. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information, which was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

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Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
9. LAND USE AND PLANNING. Would the project:					
a) Physically divide an established community?	■				
b) Conflict with any applicable habitat conservation plan or natural community conservation plan?	■				
c) Result in any land use conflicts with existing or planned land uses, including existing easements?		■			
d) 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?	■				

SETTING

Introduction

This section of the Initial Study addresses the potential land use issues associated with the development of the Mountain House Business Park. The Land Use section assesses: (1) if there are any additional land use conflicts on the project site or adjacent parcels which may require further mitigation, and (2) if conflicts with the adopted Habitat Conservation Plan(s) not previously addressed in the MEIR could occur.

Existing Land Use

The project site has been historically used for agricultural purposes. It is irrigated farmland that has been used to grow okra, tomatoes and numerous varieties of beans. A former fruit stand operation occupies the southeastern corner of the site. This area consists of a fruit stand barn, a gravel parking lot, three mobile homes/trailers occupied by agricultural workers, a bait and tackle shack that was a part of the former fish ponds, a snack shop and patio by the entrance to the former fish ponds, and an open farm equipment storage area. (The fish ponds have been drained and filled in as a part of the overall Mountain House community improvements.) A detailed description of these uses and structures is contained in the William Self Associates Archaeological Survey and Assessment (William Self Associates, 2004).

The site also contains irrigation facilities of the Byron Bethany Irrigation District (BBID). BBID water is delivered via an earthen irrigation canal, Canal 155, and a combination of low-pressure pipelines. The canal provides irrigation water to the site, and to upstream properties to the west. It also provides irrigation to one downstream property to the east, on the other side of Mountain House Parkway. An easement for the Westside Irrigation District (WSID) containing a pipeline is located along the western and northern boundary of the site. The WSID pipeline runs from the Delta-Mendota Canal north and then runs east to and along Van Sosten Road connecting to the WSID Upper Main Canal. See Figure 3-2.

Three easements, totaling 75 feet, extend across the southwest corner of the project site (King, 2004). These easements contain two underground Pacific Gas and Electric Company (PG&E) natural gas pipelines and one underground Chevron crude oil pipeline. One of the PG&E natural gas pipelines is a 36-inch-diameter line operating at a pressure of 1,040 pounds per square inch (psi) and is a main natural gas line for California, running between Oregon and Arizona. The other PG&E line is a 26-inch-diameter natural gas line operating at 890 psi. The Chevron crude oil pipeline is 18 inches in diameter and has a maximum operating pressure of 920 psi (J. House Environmental, 2004). (Refer to the survey map in Figure 2-1.)

Surrounding land uses mostly consist of vacant lands under agricultural production. The nearest residential uses, identified as the "Homesite Parcels," consist of four large lot, rural residential homes located approximately 2,000 feet to the northwest. The newly constructed residential neighborhood of Mountain House is more than one mile to the north and west of Mountain House Parkway. Two agricultural residences are located east of Mountain House Parkway between Van Sosten Road and I-205. I-205 is located along the southern boundary of the site. The freeway is raised above the ground elevation of the project site. The Patterson Pass Industrial Park is located south of the project on the south side of I-205. (Refer to the aerial photo in Figure 2-2.)

The foothills of the Diablo Range and Altamont Pass are west of the southern Mountain House area, which contains the project site. These low foothills are used for grazing and also for wind farms. The electric-power-generating windmills catch prevailing winds that flow through Altamont Pass. The Delta-Mendota Canal (part of the Federal Water Project) and the California Aqueduct are also located west of Mountain House (see Figure 2-2). Both canals are open, concrete-lined channels that are about 100 feet wide. Agricultural lands abut the site's western edge.

The Byron Airport is located about 5 miles northwest of the project site. This airport serves general aviation aircraft but may ultimately serve an air cargo feeder service. An updated *Airport Master Plan* was adopted by the Airport Land Use Commission in 2000 and addresses land use policies around the Byron Airport (Contra Costa County Airport Land Use Commission, 2000). The two existing runways that are now 4,500 feet in length could be extended to 6,000 feet towards the southeast.

The unincorporated community of Lammersville is located about one-half mile northeast of the project site, near the intersection of Hansen and Van Sosten Roads. Lammersville

includes about 210 homes and the Lammersville Elementary School. The western edge of the City of Tracy is just over 3 miles southeast of the project site.

There have been few notable changes in land use in the immediate vicinity of the project since the 1994 MEIR. Neighborhood F, which is more than a mile away, has been developed in the past few years, but it was part of the project described in the 1994 MEIR and has been developed with similar land uses and densities as addressed in the 1994 MEIR. Neighborhoods E and G are now under construction. Specific Plan II has been recently approved by the County Board of Supervisors and encompasses primarily the northern portion of the Mountain House community, as well as a smaller portion located south of Neighborhood F. (Refer to the aerial photo in Figure 2-2.)

Existing Master Plan and Zoning Designations

The current Master Plan designations for the project site are I/L – Limited Industrial, C/FS – Freeway Service Commercial, C/O – Office Commercial, and P – Public. Acreages for the adopted uses are shown in Figure 4.9-1 and on Table 4.9-1. The Master Plan designations provide the land use designations for the San Joaquin County General Plan (San Joaquin County, 1992a). The current Specific Plan I zoning designations for the project site are I-P – Industrial Park, C-FS – Freeway Service Commercial, C-O – Office Commercial, and P-F – Public Facilities as shown in Figure 4.9-2.

Table 4.9-1 shows the land use designations under the adopted Master Plan. Table 4.9-2 provides a summary of proposed uses projected under the Master Plan and zoning designations, and Table 4.9-3 summarizes uses identified on the Tentative Map. Table 4.9-3 breaks out the acreage for specific types of land uses within the proposed zoning designations. For example, 23.8 acres are designated C-FS (Freeway Service Commercial) in Table 4.9-2. In Table 4.9-3, the 23.8 acres is broken out to include a hotel and freeway services. The total acreage of the two tables remains the same.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

M4.1-2 Conflicts between urban/rural land uses would occur, particularly where existing agricultural operations abut planned residential development. Insignificant after mitigation.

S4.1-3 Conflicts between urban/rural land uses could occur within Specific Plan I, particularly where ongoing agricultural operations abut planned residential and industrial development. Such conflicts could result in adverse impacts on the existing Byron Bethany Irrigation District facilities and on the existing access routes used by farm workers and equipment to reach agricultural fields. These impacts could in turn lead to the curtailment of agricultural operations, an increase in applications to cancel existing Williamson Act contracts, and the premature conversion of agricultural lands within the project boundaries to non-agricultural uses. Insignificant after mitigation.

Figure 4.9-1: Existing Master Plan Land Use Designations COLOR

Figure 4.9-2: Existing Zoning/Specific Plan I Land Use Designations COLOR

Table 4.9-1
Summary of Uses and Development Projected Under Adopted Master Plan Designations

Land Use – Zoning	Area	Jobs/Acre[a]	Employees[b]
Freeway Service Commercial (C/FS)	27.0 acres	24	648
Office Commercial (C/O)	9.5 acres	44	418
Limited Industrial (I/L)	72.5 acres	35	2,537
Public (Park & Ride) (P)	5.0 acres		
Subtotal	114.0 acres		3,603
Public (Arterial ROW)	20.5 acres		
Public (Collector ROW)	6.5 acres		
Total	**141.0 acres**		**3,603**

Notes: ROW = right of way.

[a] Based on jobs/acre set forth in Table 3.1 of Specific Plan I.

[b] Calculated per Specific Plan I, acreage times jobs/acre.

Table 4.9-2
Summary of Proposed Uses and Development Projected Under Proposed Zoning Designations

Land Use – Zoning	Area	Jobs/Acre[a]	Employees[b]
Freeway Service Commercial (C–FS)	23.8 acres	24	571
Office Commercial (C-O)	10.4 acres	44	458
Industrial Park (I-P)	65.3 acres	35	2,286
Public (Park & Ride) (P-F)	5.2 acres		
Subtotal	104.7 acres		3,314
Public Streets	31.2 acres		
Total	**135.9 acres**		**3,314**

Notes: [a] Application of jobs/acre set forth in Table 3.1 of Specific Plan I by proposed development type within each land use/zoning category.

[b] Calculated per Specific Plan I, acreage times jobs/acre.

Table 4.9-3
Summary of Proposed Uses and Development Under Proposed Tentative Map and Special Purpose Plan

Zoning – Development Type	Area	Parcels	Building Area[a]	Jobs/Acre[b]	Employees[c]
Freeway Service Commercial (C-FS) – Retail	19.0 acres	8,9,10,11,12,13, 14,21,22,24,25	144,663 sq.ft.	24	266
Freeway Service Commercial (C-FS) – Hotel)	4.8 acres	16,26	33,689 sq.ft.	24	54
Office Commercial (C-O) – Retail	10.4 acres	3,4,5,6,7	121,780 sq.ft.	24	351
Industrial Park (I-P) – Retail	4.3 acres	2 (part of)	38,078 sq.ft.		71
Industrial Park (I-P) – Office	44.7 acres	1,2 (part of), 20	972,954 sq.ft.	44	2,457
Industrial Park (I-P) – Flex Ind/Office (I-P)	16.3 acres	17,18,19	230,310 sq.ft.		462
Public (Park & Ride) (P-F)	5.2 acres	15			
Subtotal	104.7 acres		1,541,474 sq.ft.		3,661
Public Streets	31.2 acres				
Total	**135.9 acres**		**1,541,474 sq.ft.**		**3,661**

Notes: [a] Based on proposed building square footage in proposed Tentative Map and Special Purpose Plan.

[b] Application of jobs/acre has been applied to development types that are most representative of land use employment assumptions of Specific Plan I Table 3.1.

[c] Adjusted for proposed square footage of development as per Tentative Map/Special Purpose Plan and resulting floor area ratio (FAR) variation from Master Plan FAR assumptions.

M.4.10-7 Increased development along the natural gas pipelines traversing the site could increase the risk of pipeline rupture and fire or explosion, which could result in death and injury or property damage. Insignificant after mitigation.

M4.10-8 Improperly abandoned wells, wells without sanitary seals and agricultural canals my act as conduits for agricultural chemical contamination, potentially affecting surface and groundwater quality, or may represent a safety hazard.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

Mitigation Measure M4.1-2 regarding notification of the County's Right-to-Farm Ordinance has been added to the Master Plan, Section 3.2.4, Implementation (b) and (c), and will be required for the project.

Mitigation Measure S4.1-3 was implemented by Specific Plan I Policy 4.3.2(d), stating that interim buffers and/or landscape treatments shall be installed along the western boundary of Phase I of the business park to minimize agricultural/urban land use conflicts. Implementation Measure 4.3.2(d) was also adopted with revised wording that requires that uses proposed along the western edge of the business park shall incorporate an edge

treatment that includes windrows, hedges, and evergreens that will reduce impacts of dust and spray from adjacent agricultural operations. Notification regarding the County's Right-to-Farm Ordinance has been added to the Master Plan, Section 3.2.4, Implementation (b) and (c).

Mitigation Measure M4.10-7 was implemented by Policy 6.8.1(b) with revised wording was adopted as part of the Master Plan which requiring that a Pipeline Safety Plan shall be included in the "Emergency Preparedness Plan." The Emergency Preparedness Plan has been completed and addresses pipeline safety. Implementation Measures 6.8.1(a-c) were also adopted with revised wording that requires site assessments, within 500 feet of any pipeline, mapping of pipelines, and review of development projects by pipeline owners.

Specific Plan I Implementation Measure 6.8.4(c) implementing Mitigation Measure 4.10-8 was adopted with revised wording that requires an evaluation of canal safety considerations as part of the environmental assessment for Tentative Map applications. Measures that shall be taken to reduce the attractive nuisance of canals include fencing, signage, restriction of access from the Tentative Map area, or other means.

DISCUSSION REGARDING PROPOSED PROJECT

a) Physically divide an established community?

The project would not physically divide an established community because it would be constructed in an area that is entirely used for farming, as discussed above under the "Environmental Setting" section. It is part of the new Mountain House community and is some distance away from the nearest established communities of Tracy and Lammersville.

Mitigation Measures

No mitigation measures are required.

b) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Refer to the Biological Resources section of this Initial Study that addresses biological resources. The *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan* (SJMSCP) has been prepared to provide a strategy for balancing the need to conserve agricultural lands and wildlife habitat while accommodating a growing population in the County. The SJMSCP is designed to establish an assessment process for conversion of land to non-open space uses when such conversion may affect the plant, fish, and wildlife species covered by the SJMSCP. Some of the species of concern covered under the SJMSCP include: Swainson's hawk, California tiger salamander, western pond turtle, giant garter snake, and valley elderberry longhorn beetle. The ultimate goal of the SJMSCP is to provide 100,841 acres of "preserves" over the 50-year lifetime of the SJMSCP, with most acres purchased as conservation easements over agricultural lands.

Compliance with the SJMSCP will be met through the applicant's payment of the SJMSCP fee along with pre-construction surveys and take avoidance measures spelled out in the SJMSCP. These are consistent with the MEIR mitigation alternatives and the Master Plan. The fee associated with the SJMSCP is to be placed into an interest-bearing trust account that will be transferred to the San Joaquin County Council of Governments (COG) for the SJMSCP. Any and all mitigation shall be further reviewed and approved by California Department of Fish and Game and the U.S. Department of Fish and Wildlife. These measures are addressed in more detail in the Biological Resources section of this Initial Study.

Mitigation Measures

No mitigation measures are required because the project would have to comply with the SJMSCP.

c) Result in any land use conflicts with existing or planned land uses, including existing easements?

Existing land uses consist mainly of agricultural operations. Adjacent agricultural lands within the Mountain House community are currently being planned for residential, industrial and office uses consistent with Master Plan designations through the preparation of Specific Plan III. Development of the site may result in interim land use conflicts with the adjacent uses in Mountain House, but these areas will soon become developed themselves with urban level land uses which will eliminate the agricultural-urban land use conflicts. Land use conflicts will not occur because fallow agricultural areas will be converted to new development and buffer areas between new development and agricultural operations will be maintained (see discussion under Agricultural Resources).

No additional agricultural land use conflicts were identified that were not addressed and mitigated in the 1994 MEIR and Master Plan. The agricultural operation east of Mountain House Parkway will be separated from the project by a 6- to 8-lane arterial road. Edge treatments and grade differences will reduce land use conflicts between the urban property on the west and the agricultural property to the east. This is consistent with the Master Plan and is addressed by the 1994 MEIR.

The Business Park will be separated from future residential development in Specific Plan III with the construction of Central Parkway and DeAnza Boulevard. Both of these roadways are four lanes wide and heavily landscaped as called for in Specific Plan I. Thus, the landscaped roadways will provide an effective buffer between the future residences and the Business Park.

The medium-high density residential use located on adjacent land within Specific Plan III will have consolidated entrance and exit points. Thus, traffic entering and leaving the Business Park will not conflict to any greater degree than adopted in the Master Plan.

A pipeline risk analysis was conducted for Specific Plan III addressing the two underground PG&E natural gas pipelines and one underground Chevron crude oil pipeline, which are contained within the 75-foot total easement crossing the southwest corner of the site. See Figure 2-1 for the location of this easement. The Pipeline Risk Analysis study prepared by J. House Environmental concluded that the risk level for office and light industrial land uses is less than one in a million. No additional setback or no-build zone is needed to separate industrial and office structures from the pipeline easement boundaries. As such, there is no inherent conflict between the proposed industrial and office development in the vicinity of the easement and the operation of the natural gas and crude oil pipelines within the easement and no mitigation measures are needed, nor would the risk level from the pipeline affect development within Specific Plan III. (Also refer to the discussion in Section 4.7: Hazards.)

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.1-2, M4.10-7, M4.10-8, and S4.1-3, which were subsequently incorporated into the Master Plan and Specific Plan I. No additional mitigation measures are required.

d) 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?

The applicant is proposing amendments to the Master Plan Land Use Map, which also is the General Plan Land Use Map, to move the park-and-ride lot designated P – Public, to the southeastern corner of the site adjacent to its boundary with the Mountain House Parkway and I-205. This area of the site was originally proposed for C/FS (Freeway Service Commercial) land use. In addition, the C/O (Office Commercial) area and C/FS are being expanded to take in the area of the relocated park-and-ride lot, and the I/L (Limited Industrial) area is being reduced as a result of the relocation of Central Parkway to the south in conjunction with the planning for Specific Plan III and expanded to the east.

Table 4.9-1 presents the land use designations as applicable under the Master Plan. Consistent with the proposed Master Plan amendments, the applicant is also proposing amendments to the Specific Plan I zoning map for the same changes mentioned above. A summary of the proposed uses by zoning designation, development square footage, and acreages for the Mountain House Business Park is provided above in Table 4.9-2. Table 4.9-3 shows the land uses by zoning designation.

While the applicant is proposing some minor changes in the boundaries and acreage of the various land uses, the proposal is basically similar to the development documented in the 1994 MEIR for the Mountain House Business Park. A mix of retail commercial, office, flex industrial/office, and two hotels that would total 1,541,474 square feet, including 383 hotel rooms, is proposed. It is estimated there would be a total of 3,661 employees within the project upon buildout based upon the proposed building square footage. (Refer to Table 4.12-2.) This compares with the Master Plan projections of 1,761,000 square feet and 3,603 employees. The level of proposed development under the Tentative Map and Special

Purpose Plan is 219,526 square feet less than projected under the Master Plan, but would result in less than 2 percent greater number of employees than the Master Plan, thereby complying with the projected jobs generated by the industrial park to maintain the mandated community jobs-housing ratio of 0.99. In addition, the proposed project contains the varied mix of land uses described in the Master Plan and Specific Plan I, including two hotels, office buildings, industrial park buildings, restaurants, gas stations, and limited retail commercial facilities.

The amount of retail space proposed within the Mountain House Business Park is not intended to conflict with the retail uses designated for the Village Centers. The planned Village Centers allow general retail, which permits large-scale shopping centers. The retail uses proposed within the Business Park will be smaller and would not be inconsistent with the Village Centers. In addition, the proposed Special Purpose Plan restricts any development of large grocery stores and supermarkets within the C/O zone.

The applicant proposes to amend the General Plan and Development Title to allow 5-story hotels within the Freeway Service Commercial C/FS area of Mountain House. No General Plan amendment is needed for the 5-story office building in the Mountain House Business Park, for the General Plan currently allows buildings up to 100 feet in the Light Industrial I/L areas of the County which corresponds to the I-P zoning for the Mountain House Business Park. The project would also amend the General Plan to clarify that commercial uses that support administrative and professional offices are allowed in the Commercial Office land use designation. Such uses are already allowed under the Mountain House Master Plan and Development Title. These amendments would allow a greater mix of uses within the Mountain house Business Park allowing for more convenient services to employees within the business park, and for more diverse vertical scaling, including a landmark hotel and office building visible from I-205.

In summary, the project development proposals and densities are within the scope of the Master Plan and 1994 MEIR. No substantial changes have occurred with respect to land use conditions or circumstances in the project area since the 1994 MEIR was certified and no new land use information was discovered related to new significant environmental effects so that major revisions of the previous 1994 MEIR would be required.

Numerous policies and implementation measures of the Mountain House Master Plan and Specific Plan I were adopted as mitigation measures recommended in the 1994 MEIR. The project, as conditioned, to be in compliance with the Mountain House Master Plan and Specific Plan I will not conflict with any of these policies and implementation measures. See discussion of adopted mitigation measures in each section of the Initial Study.

Mitigation Measures

No mitigation measures are required.

Conclusion

There are no significant land use effects not previously examined in the MEIR and the project would not conflict with the adopted Habitat Conservation Plan (i.e., SJMSCP) of San Joaquin County. Therefore, no new land use mitigation measures are required. There are no substantial adverse impacts to adjacent land uses or easements that were not already addressed by the 1994 MEIR. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified, nor no new available information which was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

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Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
10. MINERAL RESOURCES. Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?					
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?					

SETTING

Introduction

This section of the Initial Study addresses the potential mineral resource issues associated with the development of the Mountain House Business Park. The Mineral Resources section assesses: (1) if there are any additional mineral resource impacts on the project site or adjacent parcels that may require further mitigation; and (2) mineral resource impacts not previously addressed in the MEIR.

Existing Conditions

The Business Park site is currently undeveloped except for the existing structures and two mobile homes in the southeast corner of the project site. Historically, this site was used for growing beans, tomatoes, and okra. The project area is situated on alluvial flatland deposits that were formed by a creek drain from the nearby foothills toward Bushy Creek. The site is underlain at the surface by weakly consolidated Holocene to Upper Pleistocene clay, silt, sand, and gravel alluvial fan deposits (Kleinfelder, 2002). Mineral resources in San Joaquin County are discussed in the County's General Plan (San Joaquin County, 1992a). The only mineral resources in the general area of the Mountain House community are quarries that produce concrete aggregate. Four quarries are located south of Tracy, but none are located at or near the project site. No mineral resources have been mapped or identified in the County's General Plan.

The County's General Plan states that natural gas is located in several fields under San Joaquin County, principally in the vicinity of the Delta. Apparently, no known significant oil resources exist in the county. According to SP II, five existing parcels in the SP II project area have rights to surface access by third-party mineral rights owners. Most likely, these sites could be used for extraction of natural gas. No such sites exist in the proposed Business Park site. No similar assessment was made for the SP I project area that includes the

proposed Business Park site. The *Mountain House Specific Plan II Initial Study* (Skewes-Cox, 2004) states that according to the State Department of Conservation Division of Oil, Gas, and Geothermal Resources, wells have been drilled in the SP II project are in the past, but have not produced any usable resources.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

Mineral resources were not analyzed in the 1994 MEIR due to the lack of mineral resources on the site, so there were no identified impacts.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

Since mineral resources were not analyzed in the 1994 MEIR, there were no findings related to significant impacts identified in the 1994 MEIR.

DISCUSSION REGARDING PROPOSED PROJECT

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

Since there are no known mineral resources on the project site, the proposed Business Park would have no impact on mineral resources.

Mitigation Measures

No mitigation measures are required.

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

Since there are no known mineral resources on the project site, the proposed Business Park would have no impact on the availability of locally-important mineral recovery sites delineated in the San Joaquin County General Plan.

Mitigation Measures

No mitigation measures are required.

Conclusions

Mineral resources were not analyzed in the 1994 MEIR due to a lack of mineral resources in the Mountain House community. As such, the potential for mineral resources on the project site was examined and determined that there is no impact to these resources within the Mountain House Business Park site. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information, which was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

BASELINE Environmental Consulting. 1994. *Mountain House Master Plan and Specific Plan I Final Environmental Impact Report* ["MEIR"], September.

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Skewes-Cox, Amy. 2004. Mountain House Specific Plan II Initial Study, prepared for San Joaquin Community Development Department, December.

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
11. NOISE. Would the project result in:					
a) 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?					
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?					
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?					
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?					
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?					
f) 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?					

SETTING

Introduction

This section of the Initial Study addresses the potential noise issues associated with the development of the Mountain House Business Park. The Noise section assesses if there are any additional noise conflicts on the project site or adjacent parcels that may require further mitigation not previously addressed in the MEIR.

Existing Conditions

The Mountain House Business Park site is located at the northwest corner of I-205 and the Mountain House Parkway overpass. The site is currently an agricultural field and the nearest

proposed existing noise-sensitive land uses to the site are scattered residences at the intersection of Von Sosten Road and Mountain House Parkway at the northerly edge of the Business Park site. As the Mountain House community builds out, the site will be bounded by I-P uses to the west, residential development to the north and northwest, limited industrial uses to the west, and I-205 to the south.

Noise levels on the project site are dominated by traffic on I-205. The *Pegasus Business Park Traffic Impact Study* (TJKM, 2004) states that the current average daily traffic volume on I-205 to the project area is about 119,000 vehicles per day. Heavy trucks account for approximately 15 percent of the traffic volume. Noise measurements conducted along I-205 indicate that the day/night average noise level (L_{dn}) is approximately 83 decibels (dB) at a distance of 150 feet from the center of the roadway.

Mountain House Parkway is the only other existing noise source affecting the project site. Currently, volumes on Mountain House Parkway are relatively low. Peak hour traffic volumes, according to the TJKM report, are currently about 550 vehicles per hour. At buildout, traffic volumes on Mountain House Parkway are projected to increase significantly. Peak hour traffic volumes are projected to reach 3,735 vehicles per hour with the I-205/ Lammers interchange in place, and 4,450 vehicles per hour without the I-205/Lammers interchange in place. Speeds on Mountain House Parkway are currently in the range of 45 to 55 miles per hour (mph). The existing L_{dn} at a distance of 50 feet from the center of the road is currently 70 dB. Under future conditions, street lights will control the speed on Mountain House Parkway to 45 mph, but due to increased volumes, the noise level will reach 78 dB at a distance of 50 feet from the center of the road.

Noise Standards and Regulations

The 1994 MEIR and the Master Plan require that noise levels in primary outdoor use areas in new residential developments, schools, and other noise-sensitive land uses shall not exceed 65 dB. The Master Plan further states that community walls should be no more than 7 feet high. Specifically, the Development Title (San Joaquin County, 1992b) for Mountain House requires the following:

> **9-1025.9M NOISE**
>
> The regulations concerning noise shall be as specified in the Development Title with the following modifications:
>
> (a) Standards for Commercial and Industrial Uses. For new commercial uses, industrial uses or utilities, the exterior non-transportation noise level performance standards specified in Table 9-1025.9M shall be applicable.

TABLE 9-1025.9M: Exterior Noise Standards for Noise-Sensitive Uses Affected by Non-Transportation Noise Sources		
Noise Level Descriptor	**Daytime (7 a.m. to 10 p.m.)**	**Nighttime (10 p.m. to 7 a.m.)**
Hourly L_{eq}	55 dB	50 dB

Notes: 1. Stationary noise sources include equipment, utilities, or processes associated with industrial, commercial or public facilities which create a constant or periodic noise in a fixed location.

2. Noise-sensitive uses include residential, educational, and hospital uses.

(b) Standards for Residential Uses.

(1) New residential development shall not be allowed where noise levels due to stationary noise sources would exceed the exterior noise level standards set forth in Table 9-1025.9M.

(2) Noise levels from mobile noise sources in primary outdoor use areas of new residential development shall not exceed an L_{dn} of sixty (60) dB unless the project design includes mitigation measures to reduce noise in outdoor activity areas to sixty (60) dB, or as reasonably close to sixty (60) dB as is possible. Where it is not possible to reduce noise in outdoor activity areas to an L_{dn} of sixty (60) dB or less, an exterior noise level of up to, but not exceeding an L_{dn} of sixty-five (65) dB may be allowed by the Review Authority.

(3) Exterior noise levels shall not create an interior noise level exceeding forty-five (45) dB.

(4) Noise studies for specific residential projects proposed in areas with noise levels from mobile sources above L_{dn} sixty (60) dB shall address how noise levels in outdoor areas could be maintained at or below an L_{dn} of sixty-five (65) dB.

(c) Standards for Other Specified Uses.

(1) Noise-sensitive land uses other than residential uses shall not be allowed where noise levels due to stationary noise sources would exceed the exterior noise level standards set forth in Table 1025.9M.

(2) On school sites and other noise-sensitive land uses, any outdoor instructional areas or areas which require speech audibility shall be located outside the sixty (60) dB L_{dn} noise contour from mobile sources or shielded from mobile noise in excess of sixty (60) dB L_{dn}.

(3) Exterior noise levels shall not create an interior noise level exceeding forty-five (45) dB.

(4) Noise studies prepared for noise-sensitive land uses shall address how noise levels in outdoor areas from mobile sources shall be maintained at or below an L_{dn} of sixty (60) dB.

For all of the potential noise impacts, the Master Plan was amended as recommended in the 1994 MEIR mitigation measures. One exception was that the recommended acceptable outdoor noise level of an L_{dn} of 60 dB was raised to 65 dB to be consistent with the San Joaquin County Noise Element of the General Plan.

(d) Noise-Attenuation Measures. In addition to the noise-attenuation measures specified in the Development Title, the following additional measures shall be applicable:
(1) Until such time as residential, school or other noise-sensitive development is proposed within one thousand (1,000) feet of the railroad tracks in Mountain House, or until such time as rail use is initiated within the community, noise mitigation shall be limited to a sound wall along the tracks between the proposed transit station and Marina Boulevard.
(2) Residential development shall be set back from the centerline of I-205 a sufficient distance to satisfy Master Plan noise policies after the inclusion of sound mitigation improvements such as berms and sound walls.

In addition to the requirements of the Development Title and the Master Plan, the Noise Element of the San Joaquin General Plan contains criteria for evaluating the compatibility of commercial uses with the onsite noise environment. The Noise Element states that outdoor activity areas associated with hotels should be maintained at an L_{dn} of 65 dB or less and that interior noise levels in office buildings, hotels, and retail facilities be maintained at an L_{dn} of 45 dB or less.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identified significant noise impacts related to the following:

M4.14-1 Compatibility of the proposed uses with the future on-site noise environment.

M4.14-2 Impacts on existing land uses in the area due to project-generated traffic noise increases.

M4.14-3 Impacts on future residences due to agriculturally-generated noise on parcels adjacent to the community of Mountain House.

M4.14-4 Potential aircraft overflight noise impacts.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

For all of the potential noise impacts, the Master Plan was amended as recommended in the 1994 MEIR mitigation measures. One exception was that the recommended acceptable outdoor noise level of an L_{dn} of 60 dB was raised to 65 dB for hotels to be consistent with the San Joaquin County Noise Element of the General Plan. Also, the original 1994 MEIR recommended mitigation measures to reduce noise from agricultural machinery and helicopters were not adopted.

DISCUSSION REGARDING PROPOSED PROJECT

a) 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?

The nearest proposed development to I-205 would be approximately 250 feet from the centerline of the freeway. The nearest proposed uses include flex office uses and a hotel. These buildings would be exposed to an L_{dn} of about 82 dB due to traffic on I-205 by Master Plan buildout. The closest development to Mountain House Parkway would include fast food restaurants, gas stations, and other retail activities. These uses would be located at least 100 feet from the centerline of Mountain House Parkway. The anticipated L_{dn} at this distance due to traffic on Mountain House Parkway in the future is expected to be 74 dB.

The requirements of the Noise Element of the County General Plan are that outdoor use areas associated with the hotel should not be exposed to an L_{dn} of greater than 65 dB. Since noise levels at the setback of the proposed hotel are expected to reach an L_{dn} of 82 dB, the outdoor activity area (pool) associated with this hotel could be exposed to noise levels in excess of the County guideline. Similarly, noise levels inside the hotel and in the office buildings adjacent to I-205 could exceed an L_{dn} of 45 dB depending upon the amount of glazing in the facades and the type of windows selected. Typically, an office building will provide a noise reduction of 30 to 35 dBA. This would not be enough noise reduction in the hotel or office buildings adjacent to I-205. Therefore, additional mitigation would be required to ensure that interior noise levels do not exceed an L_{dn} of 45 dB.

As required by the Master Plan and Development Title, the applicant is required to submit an acoustical analysis at the time development permits are submitted to the County for review. Appropriate noise-control treatments can include setbacks, berms, sound walls, building orientation, and window treatments.

Mitigation Measure

No mitigation measures are required.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

There are no potential ground-borne vibration sources associated with the Business Park; thus, no impacts due to ground-borne vibration or ground-borne noise would be expected.

Mitigation Measures

No mitigation measures are required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The increase in traffic due to the development of the Mountain House community was identified as a significant impact in the 1994 MEIR. Future traffic noise levels outside of the homes adjacent to Mountain House Parkway at Von Sosten Road were projected in the 1994 MEIR to increase significantly. Mitigation measures were recommended. Because of the sparsity of existing homes in the study area, it was recommended that solutions be tailored to each specific situation. Because there are a few homes located adjacent to Mountain House Parkway, it is likely that localized sound walls would be required to reduce outdoor noise levels for these residences. It is anticipated that mitigation measures would be included in the design and construction of Mountain House Parkway. This impact was adequately addressed in the Master EIR for the project.

Noise levels due to development in the Business Park would not be expected to be audible outside of the existing homes in the vicinity of the intersection of Von Sosten Road and Mountain House Parkway due to the distance between the proposed commercial uses and the existing buildings and the background noise generated by traffic on Mountain House Parkway. The nearest proposed uses would be over 250 feet from the existing residences. The major noise sources coming from the shopping center would be traffic in the shopping center parking lot and mechanical equipment associated with the buildings. The Development Title requires that noise levels generated by commercial activities not exceed an hourly L_{eq} of 55 dB during the daytime or 50 dB at nighttime at the nearest residential land uses. Given the distances involved, it would be relatively straightforward to design mechanical equipment to not exceed these levels at the nearest existing uses. The standards in place in the Development Title will assure that there is no impact due to activity on the Business Park site.

A similar conclusion is reached for the proposed future residential development on the north side of Central Parkway and west of DeAnza Boulevard. This development would be located across major thoroughfares from the proposed Business Park. The nearest proposed uses would include retail uses and office buildings. Again, the major noise sources would be parking lot activity and mechanical equipment noise associated with the buildings. The distance between the proposed uses and the presence of streets between the future residential development and the Business Park will significantly reduce the impact of any noise generated at the Business Park. The Development Title standards to control the noise generated by stationary uses will assure that noise levels do not impact the future residential development.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.14-1, M4.14-2, and S4.14-3, which were subsequently incorporated into the Master Plan and Specific Plan I. No additional mitigation measures are required.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Temporary increases in noise levels would be associated with construction of buildings and infrastructure in the Mountain House Business Park. Depending on the timing, the construction might or might not impact future development in the Specific Plan III area. In any case, construction noise would take place across major streets from future development and existing development on the east side of Mountain House Parkway. Because of the distances involved, even during grading of the site at the closest points to the existing and future homes, construction noise levels would be expected to be at or below the level of traffic noise generated on the streets. Construction noise on this site would not create a significant noise impact.

Mitigation Measures

No mitigation measures are required.

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

The Byron Airport is located several miles to the west of the project site. The *Contra Costa County Airport Land Use Compatibility Plan* shows that future noise levels for worst case conditions by the use of Byron Airport would be less than 50 dB due to aircraft overflight noise. This is far below the noise and land use compatibility standards for the Business Park uses and aircraft noise would not be a significant impact on the site.

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.14-4, which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

f) 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?

This project is not located near any private airstrip.

Mitigation Measures

No mitigation measures are required.

Conclusions

There are no noise impacts that were not previously assessed in the MEIR. As required by the Master Plan and Development Title, the applicant must submit noise studies at the time development permits are submitted for County review to determine whether attenuation measures are required to reduce exterior noise levels, particularly near the I-205 freeway. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information, which was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

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San Joaquin County. 1994. *Mountain House New Community Master Plan*, adopted November 10, 1994, as amended.

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Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
12. POPULATION AND HOUSING. Would the project:					
a) 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)?					
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?					
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?					

SETTING

Introduction

This section examines impacts related to the Mountain House Business Park's proposed number of jobs to be provided to meet the Master Plan jobs-housing balance requirements. These requirements were identified in the 1994 MEIR as a significant impact area, which was mitigated through amendments to the Mountain House Master Plan and Specific Plan I.

The jobs/housing concept is used to examine whether a region has a balance between its housing supply and its employment base. A region that has too many jobs relative to its housing supply is likely to experience rapid escalation in housing prices (with a concurrent decline in affordability for the lower-income segments of the community), and intensified pressure for additional residential development. Conversely, if a region has relatively few jobs in comparison to employed residents, many of the regional workers would be commuting to jobs located elsewhere. The resulting traffic patterns can lead to road congestion and reductions in both local and regional air quality. Even if a region has a statistical balance between jobs and housing, there may be sizeable in-commuting and out-commuting due to employment and residential opportunities elsewhere in a region.

The balance between population and employment is measured by a ratio of jobs to employed residents; a ratio of 1.0 indicates a perfect balance between employed residents and jobs. A community can have a statistical balance between jobs and employed residents yet have none of its housing stock affordable to its work force. The ratio of jobs-to-employed residents is used in this analysis, below, for describing general jobs/housing conditions in San Joaquin

County, the City of Tracy, and the proposed project site. The 1994 MEIR projected a jobs/housing balance of 0.99.

Existing Conditions

According to Census 2000 data, San Joaquin County had approximately 181,612 households and 219,000 employed residents. According to San Joaquin Council of Government data, the County had approximately 201,671 jobs. The resulting ratio of jobs per employed resident is 0.92, implying that the County has a near balance of out-commuters and in-commuters. However, the balanced jobs-to-employed residents ratio for San Joaquin County does not take into account the type of County jobs contributing to the ratio. Historically, San Joaquin County has had a strong agriculturally-based local economy and, according to California Employment Development Department, almost 16,700 jobs, or more than 8 percent of all jobs in the County in 2000, were within the agricultural industry. Many of the agricultural jobs are low-paying and seasonal positions.

In 2000, the City of Tracy had approximately 17,259 households and 25,492 employed residents. Its resulting job per employed resident ratio of 0.67 is noticeably lower than the County ratio of 0.92, which reflects Tracy's function as a bedroom community for employment centers elsewhere in the region. In contrast to San Joaquin County, the jobs to employed residents ratio of 1.33 for the Livermore-Amador Valley of Alameda County (composed of the cities of Dublin, Pleasanton, and Livermore) signifies the region's role as an employment center with a supply of jobs that exceeds the local workforce and a resultant in-commuting of workers from outside the region.

The above statistical factors relating to the jobs/housing balance at Mountain House currently are substantially the same as those calculated in the 1994 MEIR. The current estimated jobs/housing balance for Mountain House is 0.99, the same as projected in 1994. As a result, no modifications or mitigations are required.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

M4.9-1 The proposed project may not attain an adequate balance between jobs and housing, especially during the initial phases of the proposed project.

M4.9-2 The proposed project may not provide a sufficient supply of housing that is affordable to Very Low and Low Income workers employed in the community, especially if 25 percent of the planned second units were not occupied by Very Low and Low Income renters.

S4.9-1 Specific Plan I may not attain an adequate balance between jobs and housing, especially during the initial phases of the proposed project. Job creation on the site, particularly the creation of non-local-serving jobs, may substantially lag housing construction due to lack of available industrial sites that are serviced by available infrastructure, competition and other market forces.

S4.9-2 Specific Plan I may not provide a sufficient supply of housing that is affordable to Very Low and Low Income workers employed in the community.

Impacts related to jobs/housing balance and affordable housing programs are generally considered as "economic and social information," and the CEQA Guidelines state that "economic or social effects of a project shall not be treated as significant effects on the environment" (Section 15131 (a) of the CEQA Guidelines). However, the Guidelines also state that "economic or social effects of a project may be used to determine the significance of physical changes caused by the project" (Section 15131 (b)) and "economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR" (Section 15131 (c)).

Impacts related to the jobs/housing balance and affordable housing program of the proposed project are not significant impacts, but jobs/housing impacts may contribute directly or indirectly to other significant impacts upon the physical environment. The most obvious connections between jobs/housing and affordable housing programs are with environmental impacts such as traffic levels and air quality. The significant traffic and air quality impacts of the proposed project identified in Section 4.15: Transportation/Traffic and Section 4.3: Air Quality of this Initial Study could be lessened or increased depending upon the success of failure of the proposed project's jobs/housing, economic development, and affordable housing programs. If fewer jobs or affordable housing units were created on the proposed project site than anticipated, or the timing of the affordable units or jobs were slower, more auto trips and more air pollution could be generated, as proposed project residents are forced to commute to employment centers in San Joaquin, Stanislaus, Alameda, and other counties.

Thus, the jobs and housing impacts that are considered important because of their relationship with traffic and air quality impacts are those that would result in: (1) an imbalance between the planned number and type of jobs and housing units; (2) housing that is not affordable to residents employed on the proposed project site or in the County; and (3) an excessively long rate of development for commercial and industrial land at the proposed project site

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

Master Plan, Section 3.9.2, Implementation (d), (e), and (f) implemented Mitigation Measure M4.9-1. At this point, fewer than 1,000 housing units have been completed or are under construction. As such, the first jobs-housing review, which is scheduled for no sooner than 2,000 units, has not yet taken place. However, all proposed subdivisions and specific plans are being reviewed for compliance with their respective jobs and housing assignments under the Master Plan in order to achieve the goal of a 0.99 jobs-housing ratio. As indicated in the discussion below, the total number of employees expected in the Mountain House Business Park is substantially the same as in the 1994 MEIR, thereby fulfilling its job assignment to keep the jobs-housing balance at 0.99 as documented by the 1994 MEIR and required by the Master Plan.

Master Plan, Section 3.9.3, Implementation (a) (8) and (9) implemented Mitigation Measure M4.9-2. The 1994 MEIR observed that the Mountain House Master Plan contained an affordable housing program, as required by the County General Plan, that detailed three elements that serve as mitigations to the inability of Mountain House to provide housing for low and very low income households:

1. Encouragement of the construction of second units that could be available for rent.
2. Designating land for high-density residential uses and pricing the units for low and moderate income households.
3. Creating a Mountain House Trust Fund**.**

None of the mitigation measure addressed industrial, office or commercial development. All mitigations were oriented towards housing development. The same applies to similar Specific Plan I Mitigation Measure S4.9-2. However, Master Plan Implementation Measure 3.9.3 (a) (3) encourages a voluntary employer assisting housing program.

Specific Plan I, Section 3.3.2(b) implemented Mitigation Measure S4.9-1. Infrastructure is being extended to the project area to serve the project and surrounding areas within Mountain House only as specified by the MHCSD and consistent with the Master Plan.

DISCUSSION REGARDING PROPOSED PROJECT

a) 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)?

Employment

The jobs housing balance remains an important issue at Mountain House, and has played prominently in the marketing of the community and political discourse regarding the course of its development. To date, there has been considerable residential development but virtually no commercial development. This was expected and discussed in the 1994 MEIR, and is typical for development projects in northern California. The land uses of the Mountain House Business Park have not changed substantially from what was contemplated under the Master Plan, and will not affect the jobs/housing balance as a whole. Table 4.12-1 presents the original land use and job generation assumptions for the Mountain House Business Park and the same figures calculated for the proposed land use plan. The acreages of each use have changed, as have the density or building square footage of each use. The jobs generated per acre have been adjusted to reflect this change in intensity. As shown in Table 4.12-1, the jobs generated by the development proposed at the Mountain House Business Park range from 3,314 jobs to 3,661 jobs compared to the existing Specific Plan I projection of 3,603 jobs.

Table 4.12-1
Job Creation Comparisons

	Adopted Specific Plan I Zoning			Proposed Specific Plan I Zoning			Proposed Tentative Map/Special Purpose Plan		
Land Use Designation and Zoning	**Acres**	**Jobs/Acre[a]**	**Jobs**	**Acres**	**Jobs/Acre**	**Jobs**	**Acres**	**Jobs/Acre[b]**	**Jobs[b]**
Freeway Service Commercial (C-FS)	27.0	24	648	23.8	24	571	23.8	13.4	320
Office Commercial (C-O)	9.5	44	418	10.4	44	458	10.4	33.8	351
Industrial Park (I-P)	72.5	35	2,537	65.3	35	2,286	65.3	45.8	2,990
Totals			**3,603**			**3,314**			**3,661**

Notes: [a] Number of jobs per acre specified in the existing Mountain House Specific Plan I.

[b] Calculated jobs per acre based upon proposed mix of land uses and building sizes in tentative map and special purpose plan with adjusted jobs per acre to reflect actual proposed FARs for each parcel (see Table 4.12-2).

Employment for the proposed project was calculated in two ways. The first was calculated by the acreage of proposed development type for the currently adopted and proposed zoning districts (see Table 4.12-1). Within the Freeway Service Commercial land use designation and C–FS zoning, 23.8 acres of retail commercial is proposed which would employ 571 employees at 24 employees per acre; 10.4 acres of Commercial Office (C–O) zoning is proposed which would employ 458 employees at 44 employees per acre; and 65.3 acres of Industrial Park (I–P) zoning is proposed which would employ 2,286 employees at 35 employees per acre for an overall total of 3,314 employees. Two hotels are proposed within the Freeway Service Commercial area.

Under the proposed zoning, the amount of employees calculated by applying per acre employee generation rates is 289 employees less than the adopted acreages under the Specific Plan. This is due to the loss of approximately 5 acres of industrial park land due to the realignment of Central Parkway southward into the business park as part of the Specific Plan III project proposal. As a result, the project proposes to cluster office and industrial buildings at higher densities allowed under the Development Title to maintain the same approximate employee level. See Table 4.12-2.

INSERT TABLE 4.12-2 (NEW SPREAD SHEET - Jobs Housing Ratio 03-16-05 with additions)

See separate file for this table.

Employment was also calculated by parcel for the development proposed by the tentative map and Special Purpose Plan with a factor for increased or decreased FARs, resulting from the square footage of buildings on each parcel, compared to the FAR assumptions in the Master Plan (see Table 4.12-2 and its summary in Table 4.12-1). This calculation is more specific to the proposed project than the more general calculations by land use or zoning designation presented in the first two columns of Table 4.12-1. Using the proposed development calculations by parcel and the same employees per acre assignment for proposed development types as the first method, a total of 3,661 employees is calculated for the Mountain House Business Park. This is within less than 2 percent of the employment projections adopted Specific Plan I. This percentage change has a marginal impact on the jobs/housing balance of the Mountain House Development, and therefore is not considered significant. It is within the scope of the 1994 MEIR and varies little from the employment expected and documented in the MEIR.

Affordable Housing

The affordable housing situation at Mountain House is in a state of flux. Housing is being built at a rapid rate and to date only single-family homes have been built. Housing prices have increased rapidly since the first homes were put on the market, greatly exceeding the 1998 housing cost and affordability projections in Table 3-9 of the Master Plan. As noted above, there is no affordable housing fee obligation of commercial, office, or industrial development under mitigation measures in the MEIR or under Master Plan and Specific Plan I requirements. The Master Plan, Implementation Measure 3.9.3(a)(3), encourages a voluntary employer participation in the following two programs:

- **Employer-assisted housing program.** To extend incentives to their employees who wish to live in Mountain House and to help address any affordability gaps that may be present in the community, employers will be encouraged to contribute to the Mountain House Housing Trust Fund and/or to provide down payment assistance, mortgage buy-downs, temporary collateral against mortgages, or other incentives.
- **Employee housing bulletin.** As part of the marketing program incorporated into the employer/MHCSD information and marketing efforts which are components of the job creation program, Mountain House employers will be encouraged to register with the MHCSD to outline specific housing needs for their employees. The MHCSD shall provide periodic listings to employers and employees that provide notification of when affordable housing units will be available and that match housing needs with appropriate housing opportunities within the community.

This project is not proposing any additional details to the affordable housing incentives program and, as stated in the Master Plan (Section 3.10(m)), "Additional details of affordable housing incentive programs, if any, shall be addressed by each Specific Plan."

The proposed project will provide jobs, not housing. The Mountain House Business Park is sized to serve the population anticipated by the Mountain House Master Plan, as well as passing traffic on I-205. As such, it does not appear that it will induce substantial population growth beyond that already anticipated in the Mountain House Master plan and in Specific Plans I, II, and III. To the extent there are impacts from such population growth, those

impacts are mitigated in the environmental impact analysis for those specific plans. It is the policy of San Joaquin County that development will not occur beyond the boundaries already identified for Mountain House, so any additional growth-inducing effect of the Mountain House Business Park would not take effect.

The infrastructure within the proposed project area is contemplated for Mountain House Business Park is sized to serve the development only and adjacent areas within Mountain House, and therefore does not provide any utility or infrastructure capacity for neighboring parcels or development outside Mountain House.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.9-1(b) and S 4.9-1(b), which were subsequently incorporated into the Master Plan and Specific Plan I. No additional mitigation measures are required.

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

There are no homes located within the area of Mountain House Business Park, apart from three residential trailers that provide temporary quarters for farm workers. The trailers will be moved offsite upon construction of the Business Park. No replacement housing will be necessary.

Mitigation Measures

No mitigation measures are required.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

There are only three residential trailers on the property as noted above to provide temporary quarters for farm workers. There are no permanent residents on the Mountain House Business Park property. Therefore, there will be no displacement of substantial numbers of people and no replacement housing will need to be constructed.

Mitigation Measures

No mitigation measures are required.

Conclusions

There are no impacts associated with population and housing that were not previously addressed in the MEIR. The analysis considered the number of jobs that would be provided to meet the Master Plan jobs-housing balance requirements. The projected employment figures in the Master Plan compared to the projected employment figures for the proposed project results in a 2 percent difference. This is not considered a significant difference given the number of jobs that will be created with the proposed project. There are no substantial

changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information, which was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

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Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
13. PUBLIC SERVICES.					
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
Fire protection?					
Police protection?					
Schools?					
Parks?					
Other public facilities?					

SETTING

Introduction

This section of the Initial Study addresses the potential public service issues associated with the development of the Mountain House Business Park. The Public Services section assesses if there are any additional public service impacts on the project site or adjacent parcels that may require further mitigation or that were not previously addressed in the MEIR.

Fire Protection

In March 1998, the Mountain House Community Services District (MHCSD) adopted a Fire Protection Plan that defines the standards for fire protection at the Mountain House community. In May 1996, MHCSD entered into an agreement with the Tracy Rural County Fire Protection District (TRCFPD) whereby the District would provide fire protection and emergency medical response services at Mountain House. Since then, TRCFPD has entered into an agreement with the City of Tracy whereby the Tracy Fire Department provides fire protection and emergency medical response within the boundaries of the TRCFPD and to the Mountain House community.

The MHCSD Fire Protection Plan states that fire stations shall be located to: (1) provide a maximum response time of three minutes or (2) be within 1.5 miles of property to be protected. However, in September 2004, San Joaquin County amended its General Plan and the Mountain House Master Plan to delete these specific requirements. The two plans would be amended to state that "fire stations shall be strategically located so as to offer fire protection to all portions of the community consistent with standards for comparable communities in the County." On September 1, 2004, the City of Tracy Fire Chief sent a letter to the County stating, in part, that the amendment will allow the community to work with the fire [protection] provider to locate fire stations at strategic locations to provide the best possible emergency services to the community.

The MHCSD Fire Protection Plan also addresses house and building construction standards, fire-fighting personnel staffing and training, fire flow requirements, public education on fire prevention, weed abatement, hazardous materials handling and storage, and mutual aid.

The Master Plan requires that MHCSD provide an interim fire protection facility when 100 dwelling units have been constructed and occupied. MHCSD has provided this facility by stationing an engine company at the existing City of Tracy fire station near the intersection of Shulte Road and Hansen Road (approximately 2.6 miles southeast of the center of the proposed Business Park) (Teed-Bose, 2004). Another existing City of Tracy fire station is located at the intersection of Byron Road and Grant Line Road, approximately 2.8 miles northeast of the center of the proposed Business Park.

A permanent fire station will be constructed on Mascot Drive between DeAnza Boulevard and Central Parkway as part of the development of Specific Plan I (SP I). The use permit for this station has been approved (Martin, 2005). Construction is expected to start in June 2005 (Teed-Bose, 2004).

Ambulance service would be provided by a private ambulance service company permitted by San Joaquin County. According to the 1994 MEIR, the first permanent fire station should be equipped with an ambulance if the on-site fire fighters are responsible for emergency medical service transport to the nearest hospital emergency room or emergency care facility.

Police Protection

MHCSD has an existing agreement with the San Joaquin County Sheriff's Department for law enforcement services at the Mountain House community. The agreement describes the standards for providing law enforcement. The staffing plan conforms with the San Joaquin County *General Plan 2010*, which specifies that the standard ratio for law enforcement shall be 1.5 sworn officers assigned to patrol duty per 1,000 residents in urban areas. MHCSD has agreed to pay for two officers that the Sheriff's Department will hire specifically to patrol the Mountain House community beginning January 1, 2005, as initial fulfillment of this requirement (Mendoza, 2004). The Sheriff's Department has no substations and operates its patrol division out of French Camp (south of Stockton) to maximize the ability to adequately serve all portions of the County.

The Master Plan (page 6.1) states that an urban level of police service, consistent with standards for comparable communities within San Joaquin County as defined in the Police Protection Plan and consistent with the San Joaquin County General Plan, shall be provided in the Mountain House community when it reaches an urban level of development. The service agreement between MHCSD and the Sheriff's Department calls for negotiations to begin for an enhanced level of service no later than the issuance of the first residential building permit within the boundaries of the MHCSD. MHCSD and the Sheriff's Department are actively working on developing a Police Protection Plan that will provide for enhanced service. The parties have identified specific issues to be addressed in the plan and schedule time-lines that will be negotiated (Mendoza, 2004).

Schools

The Mountain House community is located within the boundaries of the Lammersville Elementary School District (LESD) and the Tracy Unified School District (TUSD). An elementary school in Neighborhood F (north of the Business Park) opened for the fall 2004 semester. As of July 2004, 267 students from the Mountain House community were enrolled to attend that school. Additional elementary schools will be constructed in every other residential neighborhood except Neighborhoods I and J, which will be restricted to older residents with no school-age children at home. The LESD will determine the dates for construction of the schools based on enrollment and need.

Until the high school proposed for the south side of Mascot Boulevard in Mountain House is constructed in the future, high school students from the Mountain House community will attend TUSD high schools. Most will attend West High School in Tracy approximately 5 miles east of Mountain House. As of September 24, 2004, 50 students from the Mountain House community were attending TUSD high schools. TUSD will determine the phasing of construction of the high school at Mountain House.

Library Services

The closest public library to the Mountain House community is located in the City of Tracy. The Master Plan calls for the provision of a public library within Mountain House to serve the new community. Section 5.6 of SP I states that library service for SP I will initially consist of a bookmobile, and the first phase of the permanent library will be constructed prior to buildout of SP I. However, SP II Implementation Measure 5.4.1 states that Mountain House shall be served by interim leased library facilities until the population necessitates construction of a permanent full-service branch library (San Joaquin County, 2004). The timing and scope of the interim facility shall be determined by the MHCSD to correspond with service need and available operational revenues and capital improvement funds. Specific Plan II will only be responsible to participate in the funding of these facilities on a fair share basis with all other developments within the entire Mountain House community. To the greatest extent possible, the MHCSD shall coordinate with the school districts to pursue shared use of the school libraries to minimize the need for duplicative MHCSD library facilities within the community.

Childcare Facilities

LESD has contracted with a private provider for childcare services. The facility is currently house in temporary buildings at the Neighborhood F elementary school site. If this center is successful, permanent modular building units will be installed on a one-acre site at the Neighborhood F school to provide a permanent, privately operated childcare center. LESD anticipates that a second childcare center will be provided at the Neighborhood G elementary school when it is built (Unsod, 2004).

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identifies significant public services impacts of the Master Plan related to the following:

Fire and Police Protection

M4.3.3-1 M4.3.4-1 Demand for fire and police protection services would increase until on-site services are provided.

Schools

M4.3.2-1 Planned elementary/middle schools may not accommodate all the community's students.

M4.3.2-2 Several proposed school sites are located close to high voltage electric power transmission lines, natural gas pipelines, and a household waste disposal area.

M4.3.2-3 School sites may not conform to State and County requirements.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

For all the above potential public service impacts, the Master Plan was amended as recommended by the 1994 MEIR mitigation measures, except that only one high school will be required within Mountain House based on the Tracy Unified School District's needs assessment.

DISCUSSION REGARDING PROPOSED PROJECT

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

Fire protection?

SP I Implementation 6.3(c) states that a permanent fire station shall be provided when 1,800 dwelling units have been constructed and occupied or as determined by the Tracy Rural Fire

Protection District. A permanent fire station is proposed for Mascot Drive between DeAnza Boulevard and Central Parkway and has been evaluated in the 1994 MEIR. An engine company with one Type I pumper engine and 3-person crews, consisting of two fire fighters and one emergency medical technician (EMT), will be assigned to the station (Fragoso, 2004). This station will be the nearest station to the proposed Business Park.

The Mountain House Fire Protection Plan was written to conform with the San Joaquin County General Plan. As stated above, the General Plan and the Mountain House Master Plan were recently amended to delete distance and time response standards for fire service. The current goal of the City of Tracy Fire Department is to respond to a call within five minutes 95 percent of the time in all of its service areas. The department intends to monitor its response times at Mountain House to determine if the times are within the department's five-minute goal. The MHCSD intends to modify its Fire Protection Plan to make it conform with the amended County General Plan regarding fire protection service standards and the Tracy Fire Department response time goal.

With the amendment to the Master Plan regarding fire service standards, no significant impacts on fire protection services not addressed in the 1994 MEIR have been identified, and no additional mitigation measures are necessary.

One hotel and one office building are proposed to be five stories high. All buildings in the Business Park will be equipped with automatic fire suppression sprinkler and internal standpipe systems as required by the California Fire Code and the Uniform Building Code. A ladder truck equipped with a nozzle at the top to apply water to the windows or roof of a tall building when fighting a fire in a defensive mode will be needed. Additional fire fighters will also be needed (Fragoso, 2004). It is the applicant's intent to provide funding for a ladder truck in the event the truck has not been purchased prior to occupancy of either five-story building. The funding will be paid to the MHCSD and would be in an amount sufficient for a ladder truck and additional staffing. The funding would be provided prior to issuance of an occupancy permit for either building.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.3.3-1 and S4.3.3-1, which were subsequently incorporated into the Master Plan and Specific Plan I. No additional mitigation measures are required.

Police protection?

Section 6.2 of SP I states that the first phase police facility shall be provided when the Mountain House community's population reaches 7,500 people, and that it will be located at the Town Center. The actual location, timing, and design parameters for the permanent substation will be addressed in the Police Protection Plan that is currently being developed between the MHCSD and the Sheriff's Department (Mendoza, 2004).

With a total buildout population of approximately 45,000 in SP I, SP II and SP III, 67 duty officers will be required to meet Master Plan and San Joaquin County standards of 1.5 duty

officers per 1,000 residents. These officers would be added gradually as the population of the Mountain House community increases over the next decade. No significant impacts are anticipated.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.3.4-1 and S4.3.4-1, which were subsequently incorporated into the Master Plan and Specific Plan I. No additional mitigation measures are required.

Schools?

Under the California Education Code 48209, children are allowed to enroll in public school districts where their parents work rather than where they live (Waters, 2004). Therefore, the proposed Business Park could generate students that would attend LESD or TUSD schools. The 1994 MEIR did not factor in potential students whose parents may work in the Business Park, but who do not reside within the school district boundaries. However, District representatives stated that they anticipate that only a few, if any, students would attend their schools under these circumstances, and their facilities could accommodate out-of-district students. LESD and TUSD currently do not have any students of parents working, but not living, in their districts (Unsod, 2004 and Bell, 2004). In any case, the applicant will have to pay development fees to both the LESD and TUSD, which would compensate the school districts for any impacts caused by development of the Business Park.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.3.2-1, M4.3.2-2, M4.3.2-3, and S4.3.2-1, which were subsequently incorporated into the Master Plan and Specific Plan I. No additional mitigation measures are required.

Parks?

Refer to Section 4.14: Recreation, regarding existing and proposed park facilities.

Other public facilities?

Libraries

The San Joaquin County General Plan requires new communities exceeding a population of 10,000 to have a branch library. Master Plan Implementation 5.3 (a) requires a 5,000-square-foot library when the population of the Mountain House community reaches 10,000 and a 21,000-square-foot library at buildout of the community. Thus, construction of the library will be phased, and the specific timing, location, design, and programming for the permanent central library would be determined by the MHCSD. Master Plan Implementation 5.3(c) states that the library shall be located in or adjacent to the Town Center or in a community commercial area where convenient access is available. The library is shown on Figure 4.4 (Town Center Illustrative Concept) of SP II, but none of the Town Center has been built and no Tentative Maps for this area have been submitted.

It is anticipated that Business Park employees would use the Mountain House library during lunch hours and after work. Hotel guests may also go to the library in the evenings. Retail store and fast-food customers probably will not use the library. The numbers of library visitors and the demands on library services from the Business Park are expected to be relatively minor. The future library will not have to be expanded to serve the proposed Business Park.

Mitigation Measures

No mitigation measures are required.

Childcare Facilities

The Master Plan requires a minimum of three 1-acre childcare centers within the Mountain House community located at appropriate, easily accessible locations. These centers probably will be provided at elementary schools. In addition, childcare facilities could be provided at neighborhood centers, at the Business Park, and adjacent to churches and commercial uses. A childcare facility could be located in Parcels 11 through 14 fronting on Mountain House Parkway in the proposed Business Park if a private service provider desires to open a childcare center within the Business Park (Clevenger, 2004).

Mitigation Measures

No mitigation measures are required.

Financing

Under MHCSD Resolution No. 472, Pegasus–M.H. Ventures I will have to pay the project's fair share of the design and construction of Mountain House community infrastructure improvements and for the project's fair share of plans and programs to implement Community Approvals. These fees are established by Section MH-3-1401 of the MHCSD Ordinance Code. The infrastructure improvements include, in part, the first fire station on Mascot Drive.

In addition to the costs for implementing County Approvals, the plan and program implementation fee also covers the applicant's proportionate share for the costs incurred by another developer (e.g., Trimark Communities, LLC) for funding initial operation and maintenance cost shortfalls in MHCSD budgets (Karam, 2004; Milnes, 2004). Pegasus–M.H. Ventures I would also have to pay development fees to both the LESD and TUSD to compensate for any impacts on the school districts caused by development of the Business Park.

Under the annexation agreement between Pegasus–M.H. Ventures I (the applicant) and MHCSD, the applicant will have to pay the project's fair share of infrastructure improvements and for the project's fair share of plans and programs to implement Community Approvals. These fees are established by Section MH-3-1401 of the MHCSD Ordinance Code. The infrastructure improvements include, in part, fire and police service

facilities and equipment. In addition to the costs for implementing County Approvals, the plan and program implementation fee also covers the applicant's proportionate share for the costs incurred by another developer (e.g., Trimark Communities, LLC) for funding initial operation and maintenance cost shortfalls in MHCSD budgets.

Mitigation Measures

No mitigation measures are required.

Conclusions

There are no impacts associated with public services that were not previously addressed in the MEIR. The applicant must participate in the funding of various costs associated with developing the Mountain House community as required by the annexation agreement between Pegasus–M.H. Ventures I and MHCSD. The development is such that it does not require a level of services above and beyond what was identified in the MEIR. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information, which was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

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Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
14. RECREATION.					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?					
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?					

SETTING

Introduction

This section of the Initial Study addresses the potential recreation issues associated with the development of the Mountain House Business Park. The Recreation section assesses if there are any additional recreation impacts on the project site or adjacent parcels that may require further mitigation not previously addressed in the MEIR.

Existing Conditions

There are no existing recreational facilities at the Business Park project site. The Business Park site is currently undeveloped except for the existing buildings at the vegetable farm at the southeast corner of the project site. Historically, this site was used for growing beans. Neighborhood F, under construction north of the project site, has a 5-acre neighborhood park at its center. This park is a joint use facility providing recreation and sports fields for the adjacent elementary school.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identifies significant recreation impacts of the Master Plan including the following:

M4.3.1-1 Regional park facilities proposed for the Mountain House community would neither meet County General Plan standards nor be adequate for residents' needs. Parks may not be available to the first residents.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

For the above potential recreation impact, the Master Plan was amended as recommended in the 1994 MEIR mitigation measures, except that no additional regional park land was added within or outside the Mountain House community. The Findings of the 1994 MEIR concluded that adequate recreational facilities were being provided by local and neighborhood facilities, and that Trimark Communities, LLC (the developer of part of Specific Plan I and all of Specific Plan II) would be paying for development and maintenance of the proposed on-site regional park at Old River.

Implementation Measure 4 in Section 7.2.5 of Specific Plan II (SWA Group, 2004) states that the Old River Regional Park will be constructed in phases with each phase to be completed before 80 percent of the dwelling units in the adjacent neighborhood (Neighborhoods K and L in Specific Plan II) receive final inspection. Section 7.5.1 of the Master Plan states that the regional park improvements will likely be funded from impact fees levied throughout Mountain House.

DISCUSSION REGARDING PROPOSED PROJECT

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

Neither the Master Plan nor Specific Plan I envision or require recreation facilities at the Mountain House Business Park, although the plans require landscaping along arterial and collector streets around and within the Business Park. Neighborhood, community and regional park facilities will be provided in the residential neighborhoods and Town Center of the Mountain House community to the north and northwest of the project site. The parks proposed in the Master Plan are listed in Table 4.14-1. Parks at Mountain House will be operated and maintained by the Mountain House Community Services District (MHCSD).

The parks at Mountain House will be constructed over the next decade or so as the residential development continues. The timing of park construction is tied to specified numbers of dwelling units for which building permits have been issued. Temporary sports fields and open play areas shall be provided prior to issuance of the 800th building permit. These fields will be provided at either the site of the future high school or the future Central Community Park adjacent to the Town Center.

Shoppers, hotel guests, and people working or visiting the Business Park could use the parks and recreation facilities at Mountain House. It is anticipated that some of the employees at the Business Park will reside in the Mountain House community. Park activities could be passive (e.g., walking or eating at lunchtime) or active (e.g., playing softball in a league after work). The nearest neighborhood parks would be in Neighborhoods A and B (part of Specific Plan III) adjacent to the Business Park. The nearest community park would be the South Community Park located immediately west between the Business Park and the future community college campus. The South Community Park would be a 31.5-acre community

park with a recreation center, swim center with a 25-meter pool, ball fields, open play areas, picnic facilities, concession facilities, a tot-lot, and a trail system (SWA Group, 2004).

Table 4.14-1
Mountain House Parks

Type	Acres
Neighborhood	60[a]
Community	
North	22[b]
Central	45[b]
South	38[c]
River Center	3[b]
Mountain House Creek	74[d]
Regional	
Old River	82[e]
Total	**324**

Notes:
[a] 12 neighborhood parks at 5 acres each. Neighborhoods I and J are active adult neighborhoods, and each has a small park and a linear park totaling 5 acres.

[b] Specific Plan II, Section 7.2.3 .

[c] Mountain House Parks, Recreation and Leisure Plan, page 25.

[d] Mountain House Parks, Recreation and Leisure Plan, Table 1, excluding 7.5 acres of wetlands.

[e] Specific Plan II, Section 7.2.5 (Draft as of April 2004).

Mountain House is planned as a self-contained community providing housing in 12 neighborhoods and a complementary balance of jobs and services (San Joaquin County, 2000). The inclusion of the Business Park, which will provide employment as well as services, is a key part of the overall plan. Allowing people from the Business Park to use parks and recreational facilities at other locations within the Mountain House community is envisioned in the overall plan. The MHCSD will operate and maintain the parks and recreational facilities within the Mountain House community. The Mountain House Parks, Recreation and Leisure Plan provides policies for maintenance efficiency and cost effectiveness (MHCSD/SWA Group, 2004). Therefore, development of the Business Park would not increase the use of existing neighborhood and regional parks or other recreational facilities so that substantial physical deterioration of the parks or facilities would occur or be accelerated. The impact of the Business Park on Mountain House parks and recreational facilities is less than significant.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.3.1-1 and S4.3.1-1, which were subsequently incorporated into the Master Plan and Specific Plan I. No additional mitigation measures are required.

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

With the exception of the two lakes located in the office complex, no parks or recreation facilities are proposed at the Business Park. No existing recreational facilities in the Mountain House community or elsewhere will be expanded as part of developing the Business Park. Landscaping, consisting of trees, shrubs and groundcover, is proposed for all the streets on the periphery and within the Business Park. One large and one small lake are proposed which will primarily serve as pleasing aesthetic features. The large lake will have several plazas to allow people to enjoy the water. Class I multi-use paths will be constructed along Mountain House Parkway, Central Parkway, DeAnza Boulevard and the eastern half of Spatafore Parkway. Sidewalks will be constructed along the other streets. These paths and sidewalks, in essence, provide a "trail" system in the Business Park.

Construction of the lakes and paths on the site would occur simultaneously with construction of the street system and infrastructure for the Business Park. The landscaping will be installed soon after completion of the road system. No significant impacts associated with construction of the lakes and paths or installation of the landscaping are expected other than those associated with construction of the road system and infrastructure for the Business Park as a whole. Construction impacts are short-term and include movement of earth for excavation and fill, delivery of construction materials, and generation of dust and noise from operating equipment. These construction impacts were addressed in the 1994 MEIR. The impact of the Business Park on construction of recreational facilities is less than significant.

Under MHCSD Resolution No. 472, Pegasus–M.H. Ventures I will have to pay the project's fair share of the design and construction of Mountain House community infrastructure improvements and for the project's fair share of plans and programs to implement Community Approvals, such as recreational facilities. These fees are established by Section MH-3-1401 of the MHCSD Ordinance Code. The infrastructure improvements include, in part, parks and recreation facilities that have already been constructed.

In addition to the costs for implementing County approvals, the plan and program implementation fee also covers the applicant's proportionate share for the costs incurred by another developer (e.g., Trimark Communities, LLC) for funding initial operation and maintenance cost shortfalls in MHCSD budgets (Karam, 2004; Milnes, 2004).

Mitigation Measures

No mitigation measures are required.

Conclusions

There are no impacts associated with recreational services that were not previously addressed in the MEIR. The proposed project will create little impact on local recreational services since it is a business park, rather than a residential development. The applicant is required to participate in the funding of the design and construction of Mountain House community infrastructure improvements, such as recreational facilities. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information, which was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCES OF INFORMATION

BASELINE Environmental Consulting. 1994. *Mountain House Master Plan and Specific Plan I Final Environmental Impact Report* ["MEIR"], September.

Karam, Gabriel, Mountain House Community Services District. 2004. Personal communication with Robert Mills, Mills Associates, September 26.

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Milnes, Dwane, Citygate Associates. 2004. Personal communication with Robert Mills, Mills Associates, September 26.

Mountain House Community Services District/SWA Group. 2004. *Mountain House Parks, Recreation and Leisure Plan,* August 10.

San Joaquin County. 1994. *Mountain House New Community Master Plan*, adopted November 10, 1994, as amended.

San Joaquin County. 1994. *Mountain House New Community Specific Plan I*, adopted November 10, 1994, as amended September 12, 2000.

San Joaquin County. 2004. *Mountain House New Community Specific Plan II,* Final Draft, November 5.

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
15. TRANSPORTATION/TRAFFIC. Would the project:					
a) 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 the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?		1			
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?					
c) 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?					
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?					
e) Result in inadequate emergency access?					
f) Result in inadequate parking capacity?					
g) Conflict with adopted polices, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?					

SETTING

The transportation setting reflects conditions that exist in 2004. These conditions reflect the partial development of the Mountain House community and other development in the area that has been completed between the 1994 MEIR and the present.

The traffic flow conditions included in this new analysis are not dependent upon the current traffic volumes. Rather, the analysis builds upon a year 2005 baseline which includes

[1] Remains significant and unavoidable as stated in the 1994 MEIR.

existing traffic volumes, traffic increases due to other approved development and roadway/intersection improvements programmed as a part of that approved development.

Project Location and Description

The project would be located in the northwest quadrant of the Interstate 205 (I-205)/ Mountain House Parkway interchange. The project would be one development within the context of the overall Mountain House community.

The Business Park project would involve a mixed commercial/employment development, summarized as follows:

- 60.9 acres of industrial park uses;
- 25.0 acres of freeway commercial uses;
- 14.2 acres of office uses; and
- a 4.6-acre commuter park-and-ride facility.

Roadway Network

The Business Park project would front on Mountain House Parkway, a two-lane north-south roadway that connects the Mountain House community with the I-205 freeway interchange. Currently, there are limited roadway improvements in the immediate project vicinity. A brief description of the key existing roadway network is as follows:

- **Mountain House Parkway** is a two-lane rural roadway, extending as a two-lane overpass across I-205. The I-205 freeway off-ramps are stop sign controlled at Mountain House Parkway. Mountain House Parkway widens to four lanes between Mascot and Arnaudo Boulevards adjacent to the current Mountain House development. To the south, Mountain House Parkway widens to four lanes at Schulte Road adjacent to industrial development.
- **Grant Line Road** is generally a two-lane rural road that extends from an I-580 interchange east through the project area into the City of Tracy. Grant Line Road widens to six lanes in the City of Tracy adjacent to retail development.
- **Byron Road** is a two-lane rural road that extends southeast from the project area to I-205.
- **Von Sosten Road** (east-west) and **Hansen Road** (north-south) are two-lane, rural roads that provide additional through access routes in the project area.

Within the Mountain House development itself, several of the planned streets have been completed. Mascot Boulevard (four lanes), Wicklund Road (two lanes), and Arnaudo Boulevard (four lanes) have been completed from Mountain House Parkway westerly into the development. DeAnza Boulevard (four lanes) currently provides north-south access within the development between Mascot and Arnaudo boulevards.

With other approved development, the roadway network will be substantially changed. The extent of the planned roadway improvements is outlined in the following section.

BASELINE CONDITIONS WITHOUT PROJECT

Existing Traffic Volume Data

The existing AM and PM peak commute hour traffic volumes were established through intersection traffic counts conducted as a part of the background traffic study for this project (TJKM, 2004). Of the 41 intersections ultimately analyzed (with full buildout of the area) in this study, 17 intersections currently exist and were counted. The 2003 volumes at these existing intersections provide a base condition to which other approved development traffic can be added.

Other Approved Developments and Roadway Improvements

For the purposes of this analysis, the baseline conditions reflect existing traffic flows plus traffic from approved developments that are expected to be completed and occupied by 2005. In the immediate project vicinity, approved development consists of Neighborhoods E, F and G within the Mountain House Community. Traffic projections in the area also include other cumulative traffic growth on the area's key roadways.

The baseline conditions will reflect a number of roadway improvements. Many of these improvements are planned for completion as a part of the Mountain House Neighborhood E, F and G developments. These Mountain House neighborhood developments have already widened Mountain House Parkway adjacent to the development. All of the internal streets (Mascot Boulevard, Arnaudo Boulevard, DeAnza Boulevard, Great Valley Parkway, Central Parkway and Main Street) will be completed as a part of the Neighborhood E, F and G developments. The background traffic study for this Business Park project (as well as the original 1994 MEIR) have also identified additional roadway improvements that are necessary. These improvements involve roadway widening and traffic signal installations. The key baseline improvements (excluding lesser internal streets within Neighborhoods E, F and G) are depicted on Figure 4.15-1 and summarized in Table 4.15-1.

With the approved development trips and other background traffic growth, the baseline volumes have been identified at the 27 study intersections that would exist with the completion of approved development.

Baseline Traffic Flow Conditions

With the planned improvements and expected traffic growth, the operating conditions have been calculated at the 27 baseline intersections. As shown in Table 4.15-2, all but three of the intersections would operate at Level of Service (LOS) "D" or better (see Appendix C for LOS definitions). At the Mountain House Road/Grant Line Road intersection, the stop sign controlled Mountain House Road approach would operate at LOS "F" during the AM peak hour. At the Hansen Road/Byron Road intersection, the stop sign controlled Hansen Road approach would operate at LOS "F" during both peak hours. Finally, at the Byron Road/Von

Figure 4.15-1 Baseline Improvements (**Figure 7 – with modifications - from the TJKM report**)

Table 4.15-1
Summary of Key Baseline Roadway Improvements and Intersection Signals

ROADWAY IMPROVEMENTS

Roadway Segment	Improvement
Mountain House Parkway from south of Mascot Boulevard to south of I-205 (includes widening of the I-205 overpass)	Widen remaining two lane section to four lanes (with median turn lanes as required)
Arnaudo Boulevard from Mountain House Parkway to Central Parkway	Extend four lane street (with median turn lanes as required) west from current terminus to Central Parkway
Byron Road between Mountain House Parkway and Henderson Road	Widen from existing two lanes to four lanes (with median turn lanes as required)
Byron Road between Grant Line Road west and Grant Line Road east	Widen from existing two lanes to four lanes (with median turn lanes as required)
Grant Line Road between Mountain House Road and Altamont Pass Road	Widen from existing two lanes to four lanes (with median turn lanes as required)
Main Street between Central Parkway and Mascot Boulevard	Construct two-lane street from Central Parkway west into the E, F, and G development
Central Parkway between Arnaudo Boulevard and Mascot Boulevard	Construct two-lane street from Mascot Boulevard north to Main Street
Mascot Boulevard between Mountain House Parkway and Central Parkway	Extend four-lane street west from current terminus to Central Parkway (narrowing to two lanes near Central)

INTERSECTION SIGNALS

Intersection Location
Mountain House Parkway/Byron Road
Mountain House Parkway/Grant Line Road
Mountain House Parkway/Von Sosten Road
Mountain House Pkwy/I-205 WB Ramps
Mountain House Parkway/I-205 EB Ramps
Byron Road/Henderson Road
Byron Road/Grant Line Road west
Byron Road/Grant Line Road east
Byron Road/Von Sosten Road
Von Sosten Road/Hansen Road
DeAnza Boulevard/Arnaudo Boulevard
DeAnza Boulevard/Mascot Boulevard
Central Parkway/Arnaudo Boulevard
Arnaudo Boulevard/East Collector
Arnaudo Boulevard/West Collector
Mountain House Road/Altamont Pass Road

Table 4.15-2
Peak Hour Intersection LOS – Baseline Conditions

Intersection	Baseline Control[(a)]	AM Peak Hour LOS/Delay[(b)]	PM Peak Hour LOS/Delay[(b)]
1. Mt. House Pkwy/Byron Rd	Signal	B/13 sec.	B/15 sec.
2. Mt. House Pkwy/Main St.	Future Intersection		
3. Mt. House Pkwy/Arnaudo Blvd.	Signal (existing)	A/9 sec.	B/13 sec.
4. Mt. Hose Pkwy/Wicklund St.	One-Way Stop	B/12 sec.	B/12 sec.
5. Mt. House Pkwy/Mascot Blvd.	Signal (existing)	A/9 sec.	A/8 sec.
6. Mt. House Pkwy/Grant Line Rd.	Signal	B/17 sec.	C/32 sec.
7. Mt. House Pkwy/Von Sosten Rd.	Signal	B/11 sec.	C/24 sec.
8. Mt. House Pkwy/Central Pkwy	Future Intersection		
9. Mt. House Pkwy/I-205 WB Ramps	Signal	A/4 sec.	A/5 sec.
10. Mt. House Pkwy/I-205 EB Ramps	Signal	A/5 sec.	B/11 sec.
11. Main St./DeAnza Blvd.	Future Intersection		
12. DeAnza Blvd./Arnaudo Blvd	Signal	B/11 sec.	B/11 sec.
13. DeAnza Blvd/Mascot Blvd	Signal	A/6 sec.	A/7 sec.
14. Grant Line Rd/DeAnza Blvd	Future Intersection		
16. Central Pkwy/DeAnza Blvd	Future Intersection		
17. Arnaudo Blvd/East Collector	Two-Way Stop	D/30 sec.	**F/61 sec.**
18. Arnaudo Blvd/West Collector	Two-Way Stop	C/18 sec.	**F/120+ sec.**
19. Central Pkwy/DeAnza Blvd	Future Intersection		
20. Main St/Central Pkwy	One-Way Stop	B/12 sec.	B/11 sec.
21. Central Pkwy/Arnaudo Blvd	Signal	B/10 sec.	A/7 sec.
22. Central Pkwy/Mascot Blvd	All-Way Stop	A/9 sec	C/20 sec.
23. Grant Line Rd/Central Pkwy	Future Intersection		
24. Great Valley/Pkwy/DeAnza Blvd	Future Intersection		
25. Main St/Great Valley Pkwy	Future Intersection		
26. Marina Mascot/Mascot Blvd	Future Intersection		
27. Great Valley Pkwy/Grant Line Rd	Future Intersection		
28. Mt. House Rd/Grant Line Rd	One-Way Stop	**F/91 sec**.	B/12 sec.
29. Grant Line Rd/Altamont Pass Rd	Signal	B/16 sec.	B/13 sec.
30. Grant Line Rd/I-580 WB Ramps	One-Way Stop	C/15 sec.	C/18 sec.
31. Grant Line Rd/I-580 EB Ramps	All-Way Stop	A/7 sec.	D/32 sec.
32. Henderson Rd/Byron Rd	Signal	A/9 sec.	A/7 sec.
33. Hansen Rd/Byron Rd	One-Way Stop	**F/69 sec.**	**F/120+ sec.**
34. Hansen Rd/Von Sosten Rd	Signal	A/5 sec.	A/9 sec.
35. Byron Rd/Grant Line Rd (west)	Signal	A/5 sec.	A/5 sec.
36. Byron Rd/Grant Line Rd (east)	Signal	A/4 sec.	A/5 sec.
37. Byron Rd/Von Sosten Rd	Signal	A/1 sec.	A/6 sec.
38. Naglee Rd/Grant Line Rd	Signal (existing)	A/9 sec.	A/6 sec.
39. Mt. House Pkwy/Schulte Rd	Signal (existing)	A/9 sec.	A/4 sec.
40. Mt. House Pkwy/Spatafore Pkwy	Future Intersection		
41. Mt. House Pkwy/Road C	Future Intersection		

Notes: [a] The traffic controls assume improvements that will be in place with background traffic growth and completion of the Neighborhood E, F and G developments within Mountain House.

[b] At intersections controlled by traffic signals and all-way stop signs, the LOS and delay refers to overall delays experienced by vehicles entering the intersection. At intersections where the minor leg is stop sign controlled, the LOS and delay refers to delay experienced by minor street traffic entering the major street traffic flows.

Source: TJKM, *Pegasus Business Park Traffic Impact Study*, June 24, 2004.

Sosten Road intersection, the stop sign controlled Von Sosten Road approach would operate at LOS "E" during the PM peak hour. Although the overall intersection operations would be satisfactory, the delays for outbound traffic from the stop sign controlled approaches would be excessive. It is noted that at each of these intersections, the peak hour volumes would exceed the minimum thresholds at which a traffic signal could be warranted. However, at the Mountain House Road/Grant Line Road intersection, the side street flows are predominantly southbound right turns and a signal would not be recommended. At the Byron Road/Hansen Road intersection, the peak hour volumes just meet the minimum threshold and a signal would not be recommended. The volumes and traffic flow conditions at Byron Road/Von Sosten Road are such that a signal is recommended.

Roadway improvements required to serve traffic generated by development of Neighborhoods E, F, and G are shown in Table 4.15-3. The table also identifies the sources of those required improvements. As noted, the improvements deemed necessary in this document were also identified in the 1994 MEIR. It is recognized that at the Arnaudo Boulevard intersections with the east and west collector roads, there are expected to be long PM peak hour delays for outbound traffic from those collectors. However, the outbound volumes from these collector roads would generally be below the minimum thresholds at which traffic signals would be warranted.

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 FEIR

M4.12-1 Approximately 273,000 daily vehicle trips to, from, or within the site would be generated at buildout. The added vehicle trips would contribute significantly to projected traffic growth, increases, in vehicle miles traveled, and LOS deficiencies on the road system, particularly in the vicinity of the site.

M4.12-2 Within 10 miles of the site, the project would increase traffic volumes on I-205, I-580, and I-5 by 10,000 to 23,000 daily vehicles over levels projected in 2010 without the project.

M4.12-3 The project would increase traffic volumes on freeway interchanges near the site and would require interchange improvements at Grant Line Road/I-580, Patterson Pass Road/I-205 and Patterson pass Road/I-580.

M4.12-4 The project would contribute to the need for improvements on several County and other roads in the project vicinity: portions of Grant Line Road, Patterson pass Road, Byron Highway, Altamont Pass Road, 11th Street, State Route 4, and Tracy Boulevard leading to State Route 4.

M4.12-5 Project-generated trips would result in significant traffic levels on roadways internal to the site, requiring construction of adequately sized internal roadways and intersections to maintain acceptable LOS at buildout of the project.

M4.12-6 The project would generate a significant demand for parking.

Table 4.15-3
Comparison of Year 2005 Background Mitigations

Roadway	Mitigations	Part of (Neighborhoods E, F and G) Conditions	Initially Identified in 1994 MEIR	Required Under Current Analysis of Background Conditions
1. Mountain House Parkway (north of Arnaudo Blvd to south of Mascot Blvd)	Four Lanes *Trigger: Neighborhood F. It has been constructed.* *Responsibility: Applicant*	✓	✓	
2. Four Intersections: Mountain House Parkway/Grant Line Road, Mountain House Parkway/Mascot Blvd, Mountain House Blvd/I-205 EB and Mountain House Blvd/I-205 WB Ramps.	Install Traffic Signals *Trigger: 300 dwelling units of Neighborhood F* *Responsibility: Fair share by Applicant* *Timing: Signals at MH/Mascot has been constructed. Design started on MH/Grant Line.*	✓	✓	✓
3. Two Intersections: Byron Road/Mountain House Parkway, Byron Rd/Henderson Road.	Install Traffic Signals *Trigger: Neighborhood F* *Responsibility: Fair share by Applicant* *Timing: Signal design underway on Byron/MH and Henderson.*	✓	✓	✓
4. Four Intersections: Byron Road/Grant Line Rd (West), Byron Road/Grant Line Road (East), Mountain House Parkway/Von Sosten Rd And Hansen Rd/Von Sosten Rd.	Install Traffic Signals *Trigger: Neighborhood F* *Responsibility: Fair share by Applicant* *Timing: Signal design underway on MH/Von Sosten. The other three depends on priority of the counties.*	✓	✓	✓
5. Grant Line Road/Altamont Pass Road	Install Traffic Signals *Trigger: Neighborhood F* *Responsibility: Fair share by Applicant* *Timing: Depends on the priority of agency involved.*	✓	✓	✓
6. Byron Rd (between Grant Line Road (West) and Grant Line Road (East))	Widen to four lanes *Trigger: Neighborhood F* *Responsibility: Fair share by Applicant* *Timing: Depends on the priority of agency involved.*	✓	✓	✓
7. Mountain House Parkway (from Mascot Boulevard to I-205 freeway)	Widen to four lanes *Trigger: Approximately 300 units of Neighborhood E* *Responsibility: Applicant* *Timing: Currently being designed.*	✓	✓	✓

Roadway	Mitigations	Part of (Neighborhoods E, F and G) Conditions	Initially Identified in 1994 MEIR	Required Under Current Analysis of Background Conditions
8. Two Intersections: Arnaudo Blvd/DeAnza Boulevard and Arnaudo Blvd/Mountain House Parkway	Install Signals *Trigger: Approximately 700 units of Neighborhood E* *Responsibility: Applicant* *Timing: Part of Neighborhood E approval.*	✓	✓	✓
9. Mountain House Parkway two-lane overpass	Widen to four lane overpass *Trigger: Approximately 300 units of Neighborhood E* *Responsibility: Fair Share by Applicant* *Timing: A part of the Mountain House PSR.*	✓	✓	✓
10. Arnaudo Boulevard	Widen to four lanes *Trigger: 600 dwelling units of Neighborhood G* *Responsibility: Applicant* *Timing: Part of Neighborhood G approval.*	✓		
11. Mascot Blvd/DeAnza Blvd	Install signals *Trigger: Approximately 900 units of Neighborhood G* *Responsibility: Applicant* *Timing: Part of Neighborhood G approval.*	✓	✓	
12. Grant Line Rd (between Mountain House Rd and Altamont Pass Rd)	Widen to four lanes *Trigger: Approximately 400 units of Neighborhood G* *Responsibility: Fair Share by Applicant* *acming: Depends on the priority of agency involved.*	✓	✓	✓
13. Byron Rd (between Mountain House Parkway and Henderson Rd)	Widen to four lanes or appropriate channelization and transitions at intersections *Trigger: Approximately 1,100 units of Neighborhood G* *Responsibility: Fair Share by Applicant* *Timing: Signal design and improvement underway on Byron between MH and Henderson.*	✓	✓	✓

Source: TJKM, *Pegasus Business Park Traffic Impact Study*, June 24, 2004.

M4.12-7 The project would increase the demand for bicycle travel within the project site, as well as between the site and adjacent developed areas.

M4.12-8 The project would increase the number of vehicles crossing the Southern Pacific railroad track that runs through the site.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

Mitigation Measure M4.12-1: This measure addresses the need for (1) a Transportation Systems Management (TSM) program, (2) a Transportation Management Association (TMA), (3) local transit service, (4) increased proximity of residential and commercial uses as a Master Plan policy, (5) flexible work programs/hours to reduce peak hour travel, (6) Transit Oriented Development (TOD) guidelines for neighborhood centers as Master Plan policy, (7) community contributions to an Altamont Station study and development for rail use, (8) an annual Transportation Monitoring Program to allow revisions to transportation mitigation measures, and (9) a new implementation measure for the Master Plan addressing need for a telecommuting center within Mountain House.

The findings for the 1994 MEIR did not address this specific mitigation measure; however, the Master Plan does address the following: (1) a monitoring program, (2) contributions to the Altamont Station, (3) promotion of telecommuting, and (4) a TDM program. A TDM program was prepared for Mountain House in 1997. The TDM program is to be administered by the MHCSD until a Transportation Management Association is formed. The TDM program is to be updated every five years. As of September 2004, the monitoring report includes traffic counts and level of service analysis on all community gateways and other affected County roads. With the development of more homes, the report will be expanded to include more detailed analysis of the adequacy of the near-term trigger points and reports on the progress toward implementation of the required transportation improvements (Initial Study Specific Plan II, 2004).

Mitigation Measure M4.12-2: The Master Plan was amended to address reducing freeway traffic by (1) contributions to widening of I-205 or contributions to a parallel east-west roadway north of I-205, (2) widening of Altamont Pass Road if consistent with Alameda County policy, and (3) Public Financing Plan adjustments.

Mitigation Measure M4.12-3: Table 9.1 of the Master Plan was adjusted to address freeway and rail improvements needed for buildout of the community.

Mitigation Measure M4.12-4: Table 9.2 of the Master Plan was adjusted to address arterial road improvements. Text was added to the Master Plan to address arterial improvements.

Mitigation Measure M4.12-5: This mitigation measure addresses internal roads. Amendments to the Master Plan were made to show improvements/widening of local roads within the community.

Mitigation Measure M4.12-6: This mitigation measure addresses shared parking opportunities. Only a portion of the recommended text changes were made to the Master Plan.

Mitigation Measure S4.12-1: This mitigation measure addresses local bus service throughout Specific Plan I and the establishment of a park-and-ride lot in the Mountain House Business Park.

Mitigation Measure S4.12-3: This mitigation measures calls for monitoring growth trends and levels of service at the Grant Line Road/I-580 interchange in conjunction with the Land Use/Traffic Monitoring program. If there is an indication that interchange improvements are needed at I-580/Grant Line on or before Specific Plan I is built out, then the improvements for this interchange should be added to Table 9.1 in Specific Plan I. The mitigation measure also calls for amending Table 9.1 in the Specific Plan to provide for future ramp metering with an HOV bypass lane. Widening and lengthening of the westbound on-ramp may be required.

Mitigation Measure S4.12-4: This mitigation calls for amending Table 9.1 in Specific Plan I to include arterial improvements and to add trigger points for Byron Road, east of Patterson Pass Road; north-south arterial or widening of Patterson Pass Road north of Grant Line Road; widening of Grant Line Road between I-580 and Mountain House Road to four lanes – widening to begin concurrently with the construction of the Mountain House Business Park; Grant Line Road safety and operational improvements between Mountain House Road and Byron Road; initiation of discussions with Contra Costa and Alameda County representatives regarding Byron Highway and Altamont Pass Road and all Alameda County roads; and initiation of discussions and improvement plans with City of Tracy regarding improvements to Grant Line Road east of Byron Road.

DISCUSSION REGARDING PROPOSED PROJECT

a) 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 the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

and

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Project Trip Generation

As noted above, the project would consist of a mixed industrial/commercial/office development. The AM and PM peak hour project trip generation has been based on trip rates compiled by the Institute of Transportation Engineers (ITE). The ITE research has also been consulted regarding the expected "pass-by" trips and trips that would remain internal to the Business Park project.

The pass-by trip factor would apply to the proposed retail portions of the project. The pass-by trips would represent trips to/from the retail uses which are merely diverted from the background traffic flows on Mountain House Parkway. For retail areas of the size planned for this project, the pass-by factor is about 50 percent in the PM peak hour. Although the ITE research does not include AM peak hour data, it has been conservatively assumed that the AM peak hour pass-by factor is 25 percent. In addition, a portion of the proposed project trips would remain internal to the project. These trips would probably be pedestrian trips between the employment centers, retail uses and hotels. Again, based on ITE data, such mixed-use projects would be expected to have internal trip factors of 25 to 35 percent. A 25 percent internal trip factor has conservatively been assumed.

As shown in Table 4.15-4, the project would be expected to generate 986 external AM peak hour trips and 1,201 external PM peak hour trips. It is noted that these trip totals are slightly lower than the trip totals calculated in the project's background traffic study. That study utilized an areawide traffic model that calculated project traffic at 1,082 AM peak commute hour trips and 1,265 PM peak commute hour trips. Because the traffic analyses described in this document is based on the background study, the analyses present somewhat conservative findings regarding traffic impacts.

Table 4.15-4
Mountain House Business Park
Peak Hour Trip Generation

Project Component	AM Peak Hour Trip Rate	Pass-By Trip Percentage	AM Peak Hour Trips	PM Peak Hour Trip Rate	Pass-By Trip Percentage	PM Peak Hour Trips
1,166,115 sq. ft. Industrial Park	ITE equation	NA	684	ITE equation	NA	700
151,780 sq. ft. Office	ITE equation	NA	262	ITE equation	NA	249
159,240 sq. ft. Retail	ITE equation	25%	155	ITE equation	50%	426
383 Hotel Rooms	0.56/room	NA	214	0.59/room	NA	226
			1,315			1,601
Net Totals Less 25% Internal to Project			**986**			**1,201**

Additional Roadway Improvements

As a part of the proposed Business Park project, several new streets would be constructed with traffic controls at new intersections. As shown on the project's site plan, Central Parkway would be constructed as a two-lane roadway from Mountain House Parkway westerly through the project. Spatafore Parkway would be constructed as a two-lane roadway from Mountain House Parkway westerly into the project (linking with a loop roadway via roads A and B). Another minor two-lane street (Road C on the site plan) would

extend from Mountain House Parkway westerly into the retail portion of the project. DeAnza Boulevard would be constructed as a two-lane north-south roadway within the project.

New intersections within the project area would have the following traffic controls installed:

- Mountain House Parkway/Central Parkway — traffic signal
- Central Parkway/DeAnza Boulevard — traffic signal
- Mountain House Parkway/Spatafore Parkway — traffic signal
- Mountain House Parkway/Road C — Road C stop sign controlled

Traffic Flow Conditions With the Project

The baseline plus project intersection conditions are outlined in Table 4.15-5. All but two of the intersections would operate at Level of Service (LOS) "D" or better (see Appendix C for LOS definitions). At the Mountain House Road/Grant Line Road and Hansen Road/Byron Road intersections, the stop sign controlled approaches would operate at LOS "F" during one or both peak hours. As noted in the discussion of baseline conditions, the traffic flows at these intersections are such that traffic signals are not recommended. As also noted in the discussion of 2005 baseline conditions, at the Arnaudo Boulevard intersections with the east and west collector roads, the outbound collector road vehicles would experience long delays during the PM peak hour. However, volumes would be below the levels at which traffic signals would be warranted.

CUMULATIVE IMPACTS AND MITIGATIONS

Future Development/Traffic Growth

This scenario represents year 2025 conditions with buildout of the Mountain House development including the currently proposed Mountain House Business Park. Additional traffic growth due to other areawide development was also included in this scenario.

Although the buildout of the Mountain House community would result in substantial trip generation (about 16,500 AM peak and 21,200 PM peak commute hour trips), about 45 percent of these trips are expected to remain internal to the community. This high internal trip factor reflects some internal commuting by Mountain House residents to/from employment centers within the community. To a greater extent, Mountain House residents and employees are expected to shop, conduct personal business, travel to/from schools, etc. without leaving the community.

As shown in Table 4.15-6, the overall Mountain House trip generation identified in this document is virtually identical to the trip generation calculated in the 1994 MEIR.

Table 4.15-5
Peak Hour Intersection LOS
Baseline + Project Conditions

Intersection	Baseline Control[a]	AM Peak Hour LOS/Delay[b]	PM Peak Hour LOS/Delay[b]
1. Mt. House Pkwy/Byron Rd	Signal	B/16 sec.	B/17 sec.
2. Mt. House Pkwy/Main St.	Future Intersection		
3. Mt. House Pkwy/Arnaudo Blvd.	Signal (existing)	A/9 sec.	B/12 sec.
4. Mt. Hose Pkwy/Wicklund St.	One-Way Stop	B/11 sec.	B/10 sec.
5. Mt. House Pkwy/Mascot Blvd.	Signal (existing)	A/7 sec.	A/8 sec.
6. Mt. House Pkwy/Grant Line Rd.	Signal	B/17 sec.	C/24 sec.
7. Mt. House Pkwy/Von Sosten Rd.	Signal	D/37 sec.	C/20 sec.
8. Mt. House Pkwy/Central Pkwy	Signal	A/7 sec.	B/11 sec.
9. Mt. House Pkwy/I-205 WB Ramps	Signal	B/16 sec.	D/50 sec.
10. Mt. House Pkwy/I-205 EB Ramps	Signal	A/8 sec.	D/51 sec.
11. Main St./DeAnza Blvd.	Future Intersection		
12. DeAnza Blvd./Arnaudo Blvd	Signal	B/11 sec.	B/10 sec.
13. DeAnza Blvd/Mascot Blvd	Signal	A/7 sec.	A/6 sec.
14. Grant Line Rd/DeAnza Blvd	Future Intersection		
16. Central Pkwy/DeAnza Blvd	Signal	A/5 sec.	A/3 sec.
17. Arnaudo Blvd/East Collector	Two-Way Stop	C/26 sec.	**F/59 sec.**
18. Arnaudo Blvd/West Collector	Two-Way Stop	C/20 sec.	**F/97 sec.**
19. Central Pkwy/DeAnza Blvd	Future Intersection		
20. Main St/Central Pkwy	One-Way Stop	B/12 sec.	A/9 sec.
21. Central Pkwy/Arnaudo Blvd	Signal	B/11 sec.	A/7 sec.
22. Central Pkwy/Mascot Blvd	All-Way Stop	A/9 sec	C/18 sec.
23. Grant Line Rd/Central Pkwy	Future Intersection		
24. Great Valley/Pkwy/DeAnza Blvd	Future Intersection		
25. Main St/Great Valley Pkwy	Future Intersection		
26. Marina Mascot/Mascot Blvd	Future Intersection		
27. Great Valley Pkwy/Grant Line Rd	Future Intersection		
28. Mt. House Rd/Grant Line Rd	One-Way Stop	**F/105 sec**.	B/12 sec.
29. Grant Line Rd/Altamont Pass Rd	Signal	C/21 sec.	C/33 sec.
30. Grant Line Rd/I-580 WB Ramps	One-Way Stop	B/13 sec.	C/23 sec.
31. Grant Line Rd/I-580 EB Ramps	All-Way Stop	A/7 sec.	D/29 sec.
32. Henderson Rd/Byron Rd	Signal	B/11 sec.	A/7 sec.
33. Hansen Rd/Byron Rd	One-Way Stop	**F/72 sec.**	**F/120+ sec.**
34. Hansen Rd/Von Sosten Rd	Signal	B/10 sec.	B/12 sec.
35. Byron Rd/Grant Line Rd (west)	Signal	A/3 sec.	A/5 sec.
36. Byron Rd/Grant Line Rd (east)	Signal	A/6 sec.	A/5 sec.
37. Byron Rd/Von Sosten Rd	Signal	A/1 sec.	A/6 sec.
38. Naglee Rd/Grant Line Rd	Signal (existing)	B/17 sec.	A/7 sec.
39. Mt. House Pkwy/Schulte Rd	Signal (existing)	B/13 sec.	A/3 sec.
40. Mt. House Pkwy/Spatafore Pkwy	Signal	B/17 sec.	A/7 sec.
41. Mt. House Pkwy/Road C	One-Way Stop	A/1 sec.	A/1 sec.

Notes: [a] The traffic controls assume improvements that will be in place with background traffic growth, completion of the Neighborhood E, F and G developments within Mountain House and completion of the internal streets serving the proposed Business Park project.

[b] At intersections controlled by traffic signals and all-way stop signs, the LOS and delay refers to overall delays experienced by vehicles entering the intersection. At intersections where the minor leg is stop sign controlled, the LOS and delay refers to delay experienced by minor street traffic entering the major street traffic flows

Table 4.15-6
Mountain House Community
2025 Buildout plus Project Trip Generation

	1994 Master Plan EIR Buildout Trips		Mountain House with Pegasus Buildout Trips (2004 Analysis)	
	AM	**PM**	**AM**	**PM**
Inbound	4,900	5,600	5,182	5,246
Outbound	4,300	6,200	4,219	6,224
Internal	7,000 (43%)	9,400 (44%)	7,092 (44%)	9,778 (46%)
Total	**16,200**	**21,200**	**16,493**	**21,248**

Future Roadway Network Improvements

With buildout of the Mountain House community, a number of new roadways and roadway extensions would be completed. As shown on Figure 4.15-2, the year 2025 roadway network would essentially reflect completion of the Mountain House development streets and widening of most of the major roadways serving the area. It is also noted that the I-205/Mountain House Parkway interchange would be modified into a partial cloverleaf design.

With the exception of two locations, all of the 41 study intersections would be controlled by traffic signals. The two exceptions are relatively minor side street intersections with Mountain House Parkway where traffic in/out of the side streets is limited to right turns only.

It is noted that the 2025 analysis discussed in this section reflects a roadway network without the I-205/Lammers Road interchange. This interchange would generally result in improved intersection operations, particularly at the Mountain House Parkway intersections with the I-205 freeway ramps and intersections on Byron Road at Grant Line and Von Sosten roads.

Future Traffic Flow Conditions at Intersections

As shown in Table 4.15-7, all of the study intersections would operate at LOS "D" or better during both peak hours. These conditions would be very satisfactory.

Future Traffic Flow Conditions on the Freeways and Roadway Segments

With the expected growth in through traffic flows, all of the I-205 and I-580 freeway segments in the project area are expected to operate at LOS "F" in 2025. The volume/capacity (V/C) ratios are projected to be well above 1.00, suggesting that there will be significant delays and that, because of these delays, the peak period will be extended. A secondary effect of this significant freeway congestion will be a likely diversion of trips to alternative east-west arterial roadways in the area.

Figure 4.15-2 – Year 2025 Roadway Network (**Figure 14 from the TJKM report**)

Table 4.15-7
Peak Hour Intersection LOS
Year 2025 + Project Conditions

Intersection	Baseline Control	AM Peak Hour LOS/Delay[a]	PM Peak Hour LOS/Delay[a]
1. Mt. House Pkwy/Byron Rd	Signal	B/19 sec.	D/44 sec.
2. Mt. House Pkwy/Main St.	Signal	B/13 sec.	B/16 sec.
3. Mt. House Pkwy/Arnaudo Blvd.	Signal (existing)	B/10 sec.	B/17 sec.
4. Mt. Hose Pkwy/Wicklund St.	One-Way Stop	B/11 sec.	B/10 sec.
5. Mt. House Pkwy/Mascot Blvd.	Signal (existing)	A/6 sec.	A/2 sec.
6. Mt. House Pkwy/Grant Line Rd.	Signal	C/23 sec.	C/32 sec.
7. Mt. House Pkwy/Von Sosten Rd.	Signal	D/44 sec.	A/5 sec.
8. Mt. House Pkwy/Central Pkwy	Signal	B/18 sec.	B/13 sec.
9. Mt. House Pkwy/I-205 WB Ramps	Signal	C/34 sec.	B/10 sec.
10. Mt. House Pkwy/I-205 EB Ramps	Signal	A/7 sec.	D/50 sec.
11. Main St./DeAnza Blvd.	Signal	A/8 sec.	B/12 sec.
12. DeAnza Blvd./Arnaudo Blvd	Signal	A/8 sec.	A/5 sec.
13. DeAnza Blvd/Mascot Blvd	Signal	A/6 sec.	A/8 sec.
14. Grant Line Rd/DeAnza Blvd	Signal	B/12 sec.	B/14 sec.
16. Central Pkwy/DeAnza Blvd	Signal	B/12 sec.	A/7 sec.
17. Arnaudo Blvd/East Collector	Signal	A/7 sec.	A/6 sec.
18. Arnaudo Blvd/West Collector	Signal	A/8 sec.	A/9 sec.
19. Central Pkwy/DeAnza Blvd	Signal	A/5 sec.	A/3 sec.
20. Main St/Central Pkwy	Signal	A/5 sec.	A/5 sec.
21. Central Pkwy/Arnaudo Blvd	Signal	B/13 sec.	B/13 sec.
22. Central Pkwy/Mascot Blvd	Signal	A/4 sec	A/4 sec.
23. Grant Line Rd/Central Pkwy	Signal	B/12 sec.	B/10 sec.
24. Great Valley/Pkwy/DeAnza Blvd	Signal	A/3 sec.	A/2 sec.
25. Main St/Great Valley Pkwy	Signal	A/4 sec.	A/3 sec.
26. Marina Mascot/Mascot Blvd	Signal	A/4 sec.	A/3 sec.
27. Great Valley Pkwy/Grant Line Rd	Signal	B/14 sec.	A/3 sec.
28. Mt. House Rd/Grant Line Rd	Signal	B/10 sec.	A/7 sec.
29. Grant Line Rd/Altamont Pass Rd	Signal	D/40 sec.	C/29 sec.
30. Grant Line Rd/I-580 WB Ramps	Signal	A/1 sec.	A/1 sec.
31. Grant Line Rd/I-580 EB Ramps	Signal	A/5 sec.	C/30 sec.
32. Henderson Rd/Byron Rd	Signal	C/23 sec.	B/15 sec.
33. Hansen Rd/Byron Rd	Signal	A/7 sec.	A/9 sec.
34. Hansen Rd/Von Sosten Rd	Signal	B/17 sec.	B/13 sec.
35. Byron Rd/Grant Line Rd (west)	Signal	C/27 sec.	D/36 sec.
36. Byron Rd/Grant Line Rd (east)	Signal	D/49 sec.	B/19 sec.
37. Byron Rd/Von Sosten Rd	Signal	A/9 sec.	C/30 sec.
38. Naglee Rd/Grant Line Rd	Signal (existing)	D/38 sec.	A/8 sec.
39. Mt. House Pkwy/Schulte Rd	Signal (existing)	D/49 sec.	A/7 sec.
40. Mt. House Pkwy/Spatafore Pkwy	Signal	B/10 sec.	A/6 sec.
41. Mt. House Pkwy/Road C	One-Way Stop	C/22 sec.	B/12 sec.

Note: [a] At intersections controlled by traffic signals, the LOS and delay refers to overall delays experienced by vehicles entering the intersection. At intersections where the minor leg is stop sign controlled, the LOS and delay refers to delay experienced by minor street traffic entering the major street traffic flows.

Source: TJKM, *Pegasus Business Park Traffic Impact Study*, June 24, 2004.

As a result of the diversion of trips from the freeways, two of the arterial roadway segments would experience congestion problems. Severe congestion (LOS "F") would be experienced on the following roadway segments:

- Altamont Pass Road west of Grant Line Road;
- Byron Highway west of Mountain House Road;

Although two of the roadway segments are projected to operate at LOS "F", these same characteristics were identified in the 1994 MEIR. Table 4.15-8 provides a summary comparison of the various roadway segment operating conditions.

Conclusion

The most stringent standard in the study area is an LOS "C" standard for intersections on County roadways and on Community Services District (CSD) streets. With the 2005 (baseline + project) scenario, the LOS "C" standard would be exceeded at 5 of the 31 study intersections. In the 2025 buildout scenario, the LOS "C" standard would be exceeded at only 3 of the 40 study intersections.

While the LOS "C" standard is appropriate for more rural roadway networks, the network serving the ultimate Mountain House community would be more urban in nature. In more urban areas, a LOS "D" intersection standard is generally accepted as a reasonable peak hour operating condition at intersections.

With the proposed project, all of the study intersections would have an overall operation at LOS "D" or better – this LOS is considered acceptable for an urban street network. Two intersections would have longer delays on the side street approaches, but the overall operations of those intersections would be satisfactory. In the year 2025, all of the study intersections would continue to operate at LOS "D" or better. The two intersections where side street delays were excessive (under the baseline + project scenario) would have traffic signals installed, and the operation would be satisfactory.

As outlined in Table 4.15-8, the following two roadway segments would have severe congestion (LOS "F") in the year 2025:

- Altamont Pass Road west of Grant Line Road; and
- Byron Road west of Mountain House Road.

Byron Road could be widened to four lanes, thereby mitigating the congestion problems. It is not anticipated that Altamont Pass Road would be widened, and a residual LOS "F" condition would exist. It is noted that this condition is consistent with the year 2010 projections included in the 1994 MEIR.

TABLE 4.15-8: COMPARISONS OF 2025 BUILDOUT PEAK HOUR LEVEL OF SERVICE ON ARTERIAL ROADS (BEFORE AND AFTER MITIGATION)

Road	Location	Lanes per Dir.	Hourly Dir. Capacity	Time of Day	2010 Buildout – 6-Lanes on I-205 (MEIR)			2025 Buildout with Project (No I-205/Lammers Interchange)			2025 Buildout with Project (With I-205/Lammers Interchange)			Comments and MEIR Mitigation	2025 Buildout with Project (No I-205/Lammers Interchange) LOS Mitigation	2025 Buildout with Project (With I-205/Lammers Interchange) LOS Mitigation
					Volume	V/C	LOS	Volume	V/C	LOS	Volume	V/C	LOS			
Altamont Pass Road	West of Grant Line Road	1	1,140	AM	1,180	1.32	**F**	1,500	1.32	**F**	1587	1.39	**F**	Safety and Operational improvements	**F**	**F**
				PM	1,550	1.73	**F**	1,919	1.68	**F**	1700	1.49	**F**		**F**	**F**
Byron Road	West of Mountain House Road	1	1,140	AM	1,140	1.27	**F**	1,372	1.20	**F**	2178	1.91	**F**	Widen to 4 lanes.	B	C
				PM	1,310	1.46	**F**	1,398	1.23	**F**	2080	1.82	**F**		B	C
Byron Road	East of Grant Line Road	2	2,280	AM	990	0.56	C	1,569	0.69	D	1153	0.65	C	Widen to 4 lanes(capacity of 2,280)	C	C
				PM	1,010	0.57	C	1,911	0.84	C	1341	0.75	C		C	C
Mountain House Prkwy	North of I-205	4	3,560	AM	2,000	0.69	C	3,001	0.84	C	2760	0.78	C	***No longer a significant impact***		
				PM	2,520	0.84	**D**	2,815	0.79	C	2554	0.72	C			
	North of Grant Line Road	2	1,780	AM	1,050	0.71	C	711	0.40	C	966	0.54	C	***No longer a significant impact***		
				PM	1,220	0.82	**D**	784	0.44	C	993	0.56	C			
Grant Line Road	West of Great Valley Prkwy	2	3,000	AM	1,200	0.40	A	2,170	0.72	C	2209	0.74	C	*Current analysis shows that the intersections will operate at LOS D or better with improvements as recommended.*	C	C
				PM	1,520	0.51	A	2,428	0.81	**D**	2340	0.78	C		D	D
	East of Mountain House Parkway	2	2,280	AM	1,250	0.83	**D**	1,979	0.87	C	2031	0.89	C	***No longer a significant impact.***		
				PM	1,630	1.12	**F**	2,216	0.97	C	2147	0.94	C			
Grant Line Road (Ex.)	East of Byron Road	2	1,780	AM	850	0.57	C	1,535	0.86	C	1116	0.63	C	***No longer a significant impact.***		
				PM	1,300	0.87	**D**	1,528	0.86	C	1413	0.79	C			
Grant Line Road (New)	East of Byron Road	2	2280	AM	1,090	0.73	C	1,668	0.73	C	1584	0.69	B	No mitigation required.City has programmed improvements for 4-lane high capacity roadway.		
				PM	1,100	0.74	C	1,911	0.84	C	1600	0.70	B			
11th Street	East of I-205	2/3	3,430	AM	1,470	0.82	**D**	2,863	0.83	C	2455	0.72	B	Roadway is currently six-lanes from Lammers Road to east of Corral Hollow Road.		
				PM	1,570	0.87	**D**	2,967	0.87	C	2592	0.76	B			
11th Street	East of Corral Hollow	3	2,670	AM	1,080	0.71	C	1,584	0.59	C	1,823	0.68	C	Safety and operational Improvements(increase capacity to 1,900 or more) and intersection improvements. Or widen to six lanes (capacity of 2,670).	C	C
				PM	1,230	0.82	**D**	1,866	0.70	C	2,082	0.78	C		C	C
Tracy Boulevard	North of Lammers Road	1	1140	AM	400	0.44	B	532	0.47	B	530	0.46	B	***No longer a significant impact.***		
				PM	630	0.7	C	556	0.49	B	631	0.55	B			
Middle/Arbor	East of Tracy Boulevard	1	1140	AM	740	0.99	**E**	366	0.32	B	420	0.37	B	***No longer a significant impact.***		
				PM	1,030	1.37	**F**	405	0.36	B	392	0.34	B			
Stanford Extension	East of Paradise Road	2	1,800	AM	980	0.54	C	n/a	n/a	n/a	n/a	n/a	n/a	Parallel roadway not in revised 2025 roadway network		
				PM	1,30	0.8	**D**	n/a	n/a	n/a	n/a	n/a	n/a			

MEIR: 1994 Master Plan Environmental Impact Report

Note: Bold letters denote significant impacts related to LOS

Impact identified inMaster Plan EIR that is no longer significant.

New impact not identified in *Master Plan MEIR*

Regarding the freeway segments in the project area, the 1994 MEIR predicted LOS "F" conditions on all of the nearby freeway segments except I-5 south of Grant Line Road. The year 2025 projections contained in this current analysis predict the same freeway congestion.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.12-1, M4.12-2, M4.12-3, M4.12-4, M4.12-5, S4.12-1, S4.12-2, S4.12-3, S4.12-4 and S4.12-5, which were subsequently incorporated into the Master Plan and Specific Plan I. No additional mitigation measures are required.

c) 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?

The proposed project would not be located so that air traffic patterns would be at all impacted. Neither the height of proposed project buildings nor the location of the project would represent an impact.

Mitigation Measures

No mitigation measures are required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

All of the project's internal roadways and recommended off-site mitigations on roadways would be constructed in accordance with MHCSD standards. None of these facilities would introduce new traffic hazards.

Mitigation Measures

No mitigation measures are required.

e) Result in inadequate emergency access?

The proposed project would be designed with a loop street system connecting the project with adjacent major streets. Emergency vehicle access would be satisfactory with the project design.

Mitigation Measures

No mitigation measures are required.

f) Result in inadequate parking capacity?

The project would involve a wide range of land uses that have specific County Code requirements for on-site parking. Each of the project's development components would provide sufficient parking to meet these standards.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.12-6, and S4.12-6, which were subsequently incorporated into the Master Plan and Specific Plan I. No additional mitigation measures are required.

g) Conflict with adopted polices, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed project will not conflict with adopted policies, plans, or programs supporting alternative transportation methods. The applicant's Special Purpose Plan includes bicycle/pedestrian paths, and bicycle racks and/or lockers located near building entries and transit stops. Specific Plan I identifies the local transit routes that are proposed to extend through the Business Park.

Mitigation Measures

No mitigation measures are required.

Conclusions

There are no significant traffic/transportation impacts identified for the proposed project that were not previously addressed in the MEIR. The trip generation identified in the traffic study is almost the same as that calculated in the 1994 MEIR, resulting in similar conclusions at the various roadways/intersections analyzed. Mitigation measures contained in the MEIR would also apply to the proposed project; e.g., applicant's fair share of financing roadway improvements; participation in a TDM program; contributing to the construction of an Altamont Station, and promoting telecommuting. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information, which was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

SOURCE OF INFORMATION

TJKM. 2004. *Pegasus Business Park Traffic Impact Study*, June 24.

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
16. UTILITIES AND SERVICE SYSTEMS. Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?					
b) 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?					
c) 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?					
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?					
e) 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?					
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?					
g) Comply with federal, state, and local statutes and regulations related to solid waste?					

SETTING

Introduction

This section of the Initial Study addresses the potential utilities and service systems issues associated with the development of the Mountain House Business Park. The Utilities and Service Systems section assesses if there are any additional utility or service impacts that may require further mitigation not previously addressed in the MEIR.

Existing Conditions

There are only a few existing utilities at the site of the proposed Mountain House Business Park. There are two water wells and two septic tanks at the farm building complex located at the southeast corner of the site. The Byron Bethany Irrigation District (BBID) canal at elevation 155 (the BBID 155 Canal) crosses the middle of the site from northwest to southeast with a pump station located next to the canal at the western boundary of the site (Siegfried Engineering, 2004). The canal has been used in the past to supply agricultural irrigation water to BBID customers, but it is currently not in use. An agricultural irrigation well is located in the line of trees on the west side of the site south of the BBID 155 Canal (Kleinfelder, 2002).

Most utility services for the Mountain House community are provided by the Mountain House Community Services District (MHCSD). Utility infrastructure will be constructed by the developers of the Business Park prior to obtaining building permits to construct the buildings. After construction, these infrastructure capital improvements will be dedicated to the MHCSD, which will operate and maintain the utility systems. The Business Park site has been annexed to both the MHCSD and BBID service areas. MHCSD has issued a letter stating that MHCSD will provide potable water, sanitary sewer, and storm drainage service to the Business Park when the infrastructure is in place and operational (Sensibaugh, 2004).

The utility infrastructure, consisting of a water distribution system, a sanitary sewer system, and a storm drain system, has been constructed in Neighborhood F (the first neighborhood to be developed at Mountain House) and soon will be extended into adjacent Neighborhoods E and G. These utilities will later be extended south into Neighborhoods C and D and Neighborhoods A and B for future connection to the utility systems in the Business Park. The system needs to be completed in Neighborhoods C, D A and B prior to the Business Park hooking up to the two systems. Neighborhoods E and G are part of Specific Plan I (SP I), Neighborhoods C and D are part of Specific Plan II (SP II), and Neighborhoods A and B are part of Specific Plan III (SP III).

Water

Historically, the BBID has diverted water for agricultural irrigation in the area to be occupied by Mountain House south of Byron Road. This area includes the site of the proposed Business Park. Between 1976 and 1991, this agricultural irrigation supply averaged 9,413 acre-feet per year (afy). BBID has agreed to continue to divert that much water to supply the Mountain House development. Historically, BBID diverted water only during the agricultural irrigation months from April through September. However, BBID and the State Department of Water Resources (DWR) reached a trade agreement whereby BBID can divert the same quantity of water year round to supply the Mountain House community. As a result, MHCSD has a water services agreement with BBID for 9,413 afy of water to supply the Mountain House community. BBID has pre-1914 appropriative water rights based on historical use; thus, the MHCSD water supply is secure under California water law. Under the water services agreement, BBID can supply more than 9,413 afy if excess water is available.

Sometimes, during droughts, there is not enough water in the State's water supply system to satisfy all the municipal, agricultural and environmental demands throughout the state. During these situations, the DWR must allocate what water is available to the various demands, which sometimes means that municipalities do not receive the amount of water to which they are normally entitled. However, BBID is in a unique position to avoid supply curtailments during droughts. Section 9 of the 2003 agreement between DWR and BBID allows BBID to divert up to 50,000 afy from the Harvey O. Banks Pumping Plant intake channel (part of the California Aqueduct). Section 4 of the agreement "provides that regulatory restrictions imposed by state or federal agencies for environmental, drought or other purposes that affect the ability of DWR to make water diversions from the Delta shall only be applied to BBID if they are imposed directly upon BBID by law" (Gilmore, 2004). This means that a specific law would have to be passed by the State legislature and signed by the Governor to curtail BBID's supply below 50,000 afy. In addition, "as a holder of pre-1914 water rights, the District's (i.e., BBID) water supply from this source (the intake channel) is not affected by hydrologic conditions. The District has never experienced a reduction in water right due to a hydrologic condition" (CH2M Hill, 2004). Therefore, there appears to be very little chance that the MHCSD supply from BBID would ever be reduced in times of drought.

Water supply facilities have been constructed to serve the Mountain House community as it is developed. The existing facilities include the following:

- A raw water intake pump station on the California Aqueduct with two 5-million gallon per day (mgd) pumps and space for two more pumps in the future;
- A 30-inch-diameter raw water pipeline from the intake to a water treatment plant (WTP) located on Byron Road near the western boundary of Mountain House;
- A WTP with two redundant treatment units, each with a capacity of 2.5 mgd, a 4.4-million-gallon raw water storage tank, and a 5.5-million-gallon treated water storage tank, all located at the WTP site; and
- A treated water distribution system consisting of pumps and pipelines to serve Neighborhood E, F and G. Portions of the systems for Neighborhoods E and G are currently being installed.

A WTP should have sufficient capacity to supply its service area on the day of maximum demand, which is usually a hot, summer or fall day. A 20 mgd WTP would be required to supply the maximum-day demand of the Mountain House community at buildout. To comply with the California Environmental Quality Act (CEQA), an Initial Study was prepared for the 20 mgd WTP that addresses all the potential environmental impacts associated with the phased construction of the WTP to full capacity (San Joaquin County, 2000). In 1997, San Joaquin County issued a Use Permit for the WTP and the first phase has been constructed.

The WTP is operated under a license from the California Department of Health Services (DHS), and the treated water meets all the primary and secondary water quality requirements issued by DHS and the U.S. Environmental Protection Agency.

BBID owns and operates three agricultural irrigation canals that convey water east across the Mountain House site. These canals must remain in operation as long as there are existing or possible future demands for agricultural irrigation water east of the developed areas of the Mountain House community. Portions of BBID's 155-foot elevation agricultural irrigation canal presently extend across the sites of proposed Neighborhood C and the Business Park in a northwest to southeast direction. The applicants for Specific Plan II anticipate that this canal would not be needed by agricultural customers of BBID when development of Neighborhood C commences, therefore, the canal could be demolished prior to construction in Neighborhood C. If this canal is not abandoned prior to the development of Neighborhood C, then it would either be relocated to an alignment that will allow construction in Neighborhood C, or it would be replaced by a pipeline to allow BBID to continue to serve downstream agricultural customers.

Wastewater

Wastewater collection, treatment and disposal facilities have been constructed to serve the Mountain House community as it has developed. The existing facilities include the following:

- Sanitary sewer systems to serve Neighborhoods E, F and G. Portions of the systems for Neighborhoods E and G are currently being installed.
- A 0.45 mgd wastewater treatment plant (WTTP) located near the northeast corner of Mountain House which is currently being expanded and improved to provide treatment for 3.0 mgd average dry weather flow;
- Two temporary 60-million-gallon treated effluent storage basins to hold effluent during wet weather; and
- A temporary 200-acre land effluent disposal area located north of Byron Road within the Mountain House community with piping to allow flooding of the area.

A 5.4 mgd average annual flow WWTP would be required to treat the sewage generated by the Mountain House community at buildout. An Initial Study was prepared for the 5.4 mgd WWTP to address all the potential environmental impacts associated with the phased construction of the WWTP to full capacity (San Joaquin County, 1999). In 1998, San Joaquin County issued a Use Permit for the WWTP and it was constructed.

The WWTP is located near the northeast corner of the Mountain House community at an elevation low enough to allow wastewater from neighborhoods to the south of Byron Road (including the Business Park) to reach the plant through gravity-flow sewers. The existing treatment process consists of mechanical screening followed by biological treatment in four mechanically-aerated lagoons. Optional advanced treatment processes following biological secondary treatment include dissolved air flotation (DAF) clarification to remove algae, followed by chemical mixing and tertiary filtration to remove suspended solids. The treated

wastewater is disinfected and then de-chlorinated prior to land disposal. Sludge produced during biological treatment settles to the bottom of the aerated lagoons where it undergoes anaerobic decomposition and consolidation. The sludge currently accumulates in the bottoms of the lagoons and is not removed for disposal elsewhere.

An expansion of the existing WWTP is currently underway which will increase the average dry weather flow capacity from 0.45 mgd to 3.0 mgd while improving effluent quality. The expansion, when completed, will replace the aerated lagoons and DAF clarifiers with a suspended growth activated sludge treatment process. This process will incorporate advanced biological nutrient removal for nitrogen and phosphorus reduction as well as enhanced biological oxygen demand and suspended solids removal. Following secondary treatment, oxidized and clarified wastewater will be filtered and then disinfected before discharge. The existing chlorination/de-chlorination system will be decommissioned and replaced by a new ultra-violet light disinfection system. This system has been designed to meet the new National Water Research Institute 2001 Guidelines for unrestricted reuse of treated effluent. It is anticipated that future expansions of the WWTP will incorporate similar technology.

The WWTP is currently operated under Waste Discharge Requirements in Order No. 98-109 issued by the Central Valley Regional Water Quality Control Board (RWQCB). Treated effluent from the WWTP is currently disposed of by means of flooding on approximately 200 acres of land located north of Byron Road between the months of April and November. Flooding involves disposing of treated effluent by allowing it to flow out onto the surface of the ground through valves installed on the effluent disposal pipelines. The land used for effluent disposal is owned by Trimark Communities, LLC, the developer of most of the lands in Specific Plans I and II, and MHCSD has an easement to use this area for land disposal. Land disposal is prohibited during the rainy season from November to March; thus, two 60 million-gallon treated effluent storage ponds have been constructed between the WWTP and the land disposal area to hold the effluent until land disposal can recommence. Future treated wastewater disposal options are currently being evaluated for the proposed Specific Plan II project. These options are discussed later in this section.

Storm Drainage

The site of the proposed Business Park has been used for agriculture. Thus, an urban storm drain system currently does not exist in the area. The site slopes gently down towards the northeast. There are no significant natural creeks on the site. Rainfall mostly percolates into the ground or evaporates. Excess rainfall runs off in furrows and small drainage ditches that convey agricultural irrigation drainage to a settling pond located at the northeast corner of the site (Siegfried Engineering, 2004).

A Storm Water Master Plan Update has been prepared for the entire Mountain House community (PACE, 2003). An urban storm drain system, consisting of drop inlets (a.k.a. catch basins), pipelines, channels and discharge structures, was installed in Neighborhood F in conformance with the Storm Water Master Plan. This system is now being extended into Neighborhoods E and G. The pipelines, channels, and discharge structures have been sized to accommodate storm flows from upstream areas. The pipelines will be extended upstream

through Neighborhoods D and B toward the Business Park site as the road and infrastructure systems for these neighborhoods are constructed. The storm drain system will collect storm runoff and discharge it to Mountain House Creek, Dry Creek, and ultimately to Old River.

A pipeline, estimated to be 30 inches in diameter, conveys excess storm runoff from a 0.4-square mile area south of I-205 (identified as Sub-basin 9A in the Storm Water Master Plan Update) under I-205 and into the Business Park site.

Solid Waste

Very little solid waste is generated at the Business Park site since agricultural production has ceased, and there are only a few people living in the trailers at the southeast corner of the site. Currently, there is no urban solid waste (garbage) collection at the site; all solid waste is hauled off the site by the residents.

MHCSD has issued a permit for the collection, transportation and disposal of solid waste from Neighborhoods E, F and G to Tracy Delta Solid Waste Management, Inc., which also does business as West Valley Disposal (MHCSD, 2002). This service also includes collection of recyclable materials as required by the Master Plan. Non-recyclable garbage is transferred by truck to the Foothill Landfill, a Class III landfill permitted to receive non-hazardous waste, located in eastern San Joaquin County about 50 miles from the Mountain House community.

Disposal of hazardous waste is managed by the San Joaquin County Solid Waste Division of the Public Works Department, which has a regional program in place. Household hazardous wastes from Mountain House can be dropped off at the Household Hazardous Waste Consolidation Facility in Stockton. In addition, used motor oil and oil filters can be dropped off at several automobile parts and service stores in Tracy as well as the Tracy Materials Recovery and Transfer Facility. Hazardous wastes generated in San Joaquin County are either disposed at Forward, Inc., a Class II landfill within the County, or are transported outside the County for disposal.

Neighborhood F is currently under construction. Construction wastes from Neighborhood F, consisting mostly of wood and metal, are currently recycled in compliance with Master Plan Implementation Measure 6.7.d, the MHCSD Waste Management Ordinance, and the applicant's agreement with West Valley Disposal (Teed-Bose, 2004).

SIGNIFICANT IMPACTS IDENTIFIED IN 1994 MEIR

The 1994 MEIR identifies significant utility and service system impacts of the Master Plan related to the following:

Water

M4.4.1-1 Inadequate raw water storage in case of restrictions of water diversions imposed by state or federal agencies.

M4.4.1-2 Adverse impacts to continuing agricultural operations in the area resulting from conversion from agricultural to municipal/industrial water use.

M4.4.1-3 Inadequate water supply for Master Plan buildout.

M4.4.1-4 Lack of drinking water if the water treatment plant is not constructed prior to occupancy within the project.

M4.4.1-5 Adverse water quality impacts and/or reduction of available landfill capacity due to production of water treatment sludge.

M4.4.1-6 Uncontrolled release of hazardous materials associated with water treatment.

M4.4.1-7 Lack of sufficient water treatment capacity for initial or subsequent development within the Master Plan area.

Wastewater

M4.4.2-1 Adverse water quality and public health impacts due to inadequate wastewater treatment or lack of enough reclamation sites.

M4.4.2-2 Illegal waste discharges through agricultural drains if they are not abandoned.

M4.4.2-3 Adverse water quality and public hearth impacts and/or reduction of available landfill capacity due to production, treatment and disposal of wastewater treatment sludge.

M4.4.2-4 Uncontrolled release of hazardous materials associated with wastewater treatment.

M4.4.2-5 Flooding resulting from failures of levees around wastewater treatment facilities and effluent holding ponds.

Storm Drainage

M4.4.3-1 Nuisance conditions resulting from debris and petroleum residue in detention ponds.

Solid Waste

M4.3.4-1 Reduction of available landfill capacity due to generation of solid and hazardous wastes.

MITIGATION MEASURES OF THE 1994 MEIR RELEVANT TO THE PROJECT

For all the above potential utility and service system impacts, the Master Plan was amended as recommended in the 1994 MEIR mitigation measures, except for the following:

- Policies and implementation measures to provide adequate raw water storage in case of water diversion restrictions were not incorporated into the Master Plan. Instead, each specific plan is expected to reevaluate the adequacy of the confirmed water supply relative to possible water diversion restrictions. If supply is inadequate, additional water conservation/reuse measures shall be implemented.
- Calculations to determine if sufficient land was available for water treatment and storage were not required for the water treatment plant development permit. The findings determined that the 18.5-acre site was adequate.
- Measures mandating construction of a reclaimed water distribution system were not incorporated.

DISCUSSION REGARDING PROPOSED PROJECT

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The RWQCB is responsible for protection of the local water resources. The RWQCB has issued a five-year National Pollutant Discharge Elimination System (NPDES) permit to MHCSD as Order No. 98-192. This permit allows discharge of up to 5.4 mgd average dry weather flow to Old River following secondary treatment and disinfection. The ability of the WWTP to reliably produce effluent with the quality required for discharge to Old River must be successfully demonstrated to the RWQCB before discharge to Old River will be allowed to commence. The permit also allows for disposal of an unspecified amount of highly treated wastewater (tertiary treatment with filtration followed by disinfection) as reclaimed water for uses as prescribed in Title 22 of the California Code of Regulations. The required effluent qualities differ for the two disposal methods. MHCSD is currently pursuing the following effluent disposal options:

1. Year-round discharge to Old River.
2. Year-round reclamation as cooling water at the East Altamont Energy Facility in Alameda County west of Mountain House. The East Altamont Energy Facility has undergone full environmental review by the California Energy Commission. However, construction of the facility has not been proposed at this time (February 2005). Not all of the WWTP treated effluent at Mountain House buildout capacity could be accommodated by the East Altamont Energy Facility, so some other disposal option would also have to be implemented for disposal of a portion of the effluent.
3. Seasonal reclamation for turf irrigation at the parks, golf course and open space within the Mountain House community.
4. Seasonal reclamation for irrigation of fodder crops (not crops for human consumption) on lands to the west and east of Mountain House.

Some combination of two or more of the four effluent disposal options described above would be possible. For example, summertime reclamation for landscape irrigation (Option 3)

or fodder crops (Option 4) could be combined with wintertime discharge to Old River (Option 1) when irrigation water is not needed. Discharge to Old River (Option 1) could always be used as a backup disposal method if it became necessary to temporarily interrupt reclamation.

In addition, MHCSD could continue to dispose of up to 2.76 mgd average dry weather flow using the existing land flooding disposal method on the 200 acres of Trimark Communities land north of Byron Road as permitted by RWQCB Order No. 98-109. This land would remain undeveloped for use as a disposal area until the MHCSD demonstrates to the satisfaction of the RWQCB that the WWTP can reliably produce treated effluent with satisfactory quality for discharge to Old River.

Regardless of which disposal option, or combination of options, MHCSD is able to utilize, MHCSD must operate its WWTP in compliance with the RWQCB discharge requirements or MHCSD will be in violation of its discharge permit. If violations were to occur, the RWQCB would take action to stop them, including issuing a Cease and Desist order, if necessary. MHCSD has the necessary financial resources to improve, operate and maintain its WWTP so that discharge permit violations are not expected to occur. Therefore, the impact of the proposed Business Park is considered less than significant.

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.4.2-1, M4.4.2-2, M4.4.2-3, M4.4.2-4, and M4.4.1-6, which were incorporated into the Master Plan. No additional mitigation measures are required.

b) Would the project 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?

Water Demand

Table 4.16-1 presents the projected average daily water demand for SP I, SP II, and SP III at buildout. Based on water demand factors in the Water Supply Assessment (West Yost, 2004) and the acreage of the proposed Business Park, the Business Park will create 134,500 gallons per day (0.13 mgd) or 150.6 afy of the SP I demand when the park is fully occupied. SP I projected that the Business Park would consume 166.8 afy. The difference between these two values is because Table 12.1 of SP I assumed 112.5 acres of commercial and business park development while the proposed project contains only 100.1 acres of commercial and industrial park development.

Table 4.16-1 Potable Water Demand

Area	Annual Water Demand (afy)[a]	Average Daily Water Demand (mgd)
SP I	2,662	2.38
SP II	5,462	4.88
SP III	1,546	1.38
Total	**9,670**	**8.63**

[a] West Yost & Associates, *Senate Bill 610 Water Supply Assessment for Specific Plan III,* Appendix G, July 28, 2004.

The unit water demand for commercial and business/industrial park development in the Water Supply Assessment and Specific Plan I is 1.3 afy per acre or 1160 gallons per acre-day (gad), which is rather low. MHCSD's Potable Water System Plan Update (West Yost, 2003) uses unit water demand factors, with water conservation, of 1,750 gad and 1,600 gad for commercial and industrial land uses respectively. The total annual water demand for the entire Mountain House community at buildout in the Potable Water System Plan Update is 9.1 mgd or 10,193 afy.

The projections in Table 4-16.1 assume that 14 percent water conservation can be continuously maintained by the following:

- Public education about the merits of continually conserving water;
- Requirements for installation of low-flow plumbing fixtures and water-conserving appliances in houses and buildings;
- Installation of pressure-reducing valves on services with water main pressures higher than 70 pounds per square inch;
- Landscaping of public places with grasses and plants that do not require a large amount of water; and
- Establishment of a water rate structure that encourages water conservation.

In an effort to achieve the 14 percent water conservation goal, Implementation 12.3.3(c) of the Master Plan requires low-water-using landscaping in commercial, industrial and public areas. Implementation 12.3.3(d) of the Master Plan requires development of a rate structure that will encourage water conservation. MHCSD has an existing Ordinance for Water Conservation and Water Shortage Emergencies (Ordinance No. 4056) that prohibits wasting water and establishes several levels of mandatory water-rationing that can be enacted by the MHCSD Board of Directors should single or multiple year droughts occur. The MHCSD also has a Water Conservation and Monitoring Program that establishes water conservation measures (including some of those cited above) and a water conservation monitoring program. For additional discussion regarding achieving the 14 percent water conservation goal, refer to Item d) below.

The applicant for the proposed project is working with the developer of Specific Plan III to obtain a supplemental supply of non-potable water from BBID for landscape irrigation. BBID has confirmed in a letter to the applicant that the District will provide 100 acre-feet per year of raw water for landscape irrigation (BBID, 2005). The applicant for the proposed project needs 73 afy to irrigate the landscaping on the building parcels and along the roadways of the Business Park. This non-potable supply would be pumped from BBID's 155-foot agricultural irrigation canal just north of Grant Line Road and conveyed in pipelines extending southward along the Great Valley Parkway, eastward along Grant Line Road, and southward along Central Parkway to the aesthetic ponds within the Business Park (EDAW, 2005). The water would be pumped from the ponds and conveyed through a water distribution pipeline system to irrigate landscaping within the Business Park. This supplemental supply of non-potable water for landscape irrigation would reduce the demand for potable water at the Business Park.

Water Treatment

Capacity

Water supply and treatment facilities should be sized to supply the demand that occurs on the day of maximum demand (usually a hot, dry summer day when landscape irrigation demand is high). The MHCSD Potable Water Master Plan Update (West Yost, 2003) use a maximum day-to-average day demand peaking factor is 2.2, which is equivalent to the San Joaquin County design standard (ECO:LOGIC, 1999). Therefore, the total maximum-day demand for SP I, SP II and SP III would be 19 mgd, close to the 20 mgd WTP that is proposed for Mountain House.

The existing WTP has a firm maximum-day capacity of 2.5 mgd as permitted by the DHS. Therefore, the WTP must be expanded in the future to serve the latter half of the development of SP I as well as all of SP II and SP III. The plant will be expanded in several stages over the years while development continues. Environmental impacts of full buildout of the WTP were evaluated in a separate initial study (SJCCDD, 2000).

Sludge Processing

Master Plan Policy 12.3.9a and 1994 MEIR Mitigation Measure M4.4.1-5 encourages industrial reuse of water treatment sludge. However, the only sludge produced by the current treatment process results from drying the waste wash-water produced when the filters are back-washed. This water is discharged to earthen drying beds at the WTP site where it evaporates and percolates into the ground. So little sludge is produced that industrial reuse is impractical. No significant impacts associated with water treatment sludge disposal would occur by continuing the current sludge drying process.

Raw Water Storage

Mitigation Measure M4.4.1-1(b) in the 1994 MEIR recommended adding a policy (which was not added) to the Master Plan that "adequate raw water storage should be provided to ensure a continued supply to the project in case of restriction to water diversion and emergencies that would prevent diversion." The Mountain House Potable Water System Master Plan states that raw (i.e., untreated) water storage equal to two times average day demand should be provided at the WTP in case there is a planned or emergency shutdown of the raw water intake pump station or pipeline (ECO:LOGIC, 1999). This criterion would require 17.4 million gallons of raw water storage for the buildout of SP I, SP II, and SP III. The ultimate WTP site plan is shown on Figure 12.4 of the Master Plan. Only one 4.4 million-gallon storage tank is shown on the ultimate WTP layout, which is less than sufficient for SP I. An additional 0.4 million gallons of raw water storage should be provided at the WTP for SP I if this criterion is to be achieved, but adding such a small tank would be impractical. An additional 10.1 million gallons of storage should be provided for SP I and SP II, and an additional 13 million gallons should be provided for SP I, SP II, and SP III.

Although MHCSD issued a "will-serve" letter for water supply to the proposed project, MHCSD will need to provide a reliable water supply to be in conformance with the Mountain House Potable Water Supply Master Plan Update. MHCSD will need to construct additional

raw water storage tanks at the water treatment plant site that will hold at least two times the average day capacity of the plant. The WTP site plan shows an area northeast of the existing storage tanks that is identified as "POSSIBLE FUTURE RAW WATER STORAGE." The additional tanks could be constructed in this area.

Construction-Related Impacts

Expansions of the WTP would be confined to the site of the existing plant. Construction impacts would include noise and dust from construction equipment and traffic impacts associated with truck traffic removing spoils and debris and delivering construction materials and equipment. These impacts would be temporary, extending only through the periods of construction. Construction impacts were discussed in the Initial Study / Mitigated Negative Declaration for the WTP (SJCCDD, 2000). No additional plant construction-related mitigation measures are necessary.

Water Distribution

Pipelines

Locations and sizes of recommended water distribution pipelines are shown on Figure 5 of the Potable Water System Update (West Yost, 2003). Potable water distribution pipelines to serve the Business Park would be installed along the streets prior to paving the streets. A 14-inch-diameter pipeline would be extended along DeAnza Boulevard from Neighborhood B on the north side of the Business Park site. Within the Business Park, the water distribution system would consist of 10- to 14-inch-diameter pipelines installed in a loop layout with the exception of a dead-end, 10-inch-diameter pipeline along Central Parkway east of DeAnza Boulevard (Siegfried Engineering, 2004). The 14-inch-diameter pipeline extending west along Central Parkway would be extended west into the Business Park expansion area in the future; until then this pipeline would dead-end at the western boundary of the proposed project. Fire hydrants would be installed as required by the MHCSD and the California Fire Code.

Portions of BBID's 155-foot elevation agricultural irrigation canal presently extend across the proposed Business Park site in a northwest to southeast direction. Master Plan Implementation 12.3.4(a) states that the appropriate specific plans shall identify how water and drainage service to the lands east of the Mountain House project and Mountain House Parkway within the BBID service area would be affected. The specific plans shall identify the infrastructure needed to maintain these services and when construction of these facilities would need to be completed. Section 12.3 of SP I states that the portion of the 155-foot elevation canal within the SP I area shall be abandoned and replaced by a pipeline.

Only one active farm exists east of the Business Park site. That farmer is currently growing alfalfa using well water for irrigation. One possibility would be to transfer service for this farm from the BBID to the Westside Irrigation District (WSID). A new pump station would be constructed at the WSID's Upper Main Canal along with a new pipeline extending west from the pump station to Mountain House Parkway, then south to serve the farm in case the farmer requests service in the future (Siegfried Engineering, 2004). The applicant's engineer

is also exploring a plan to "wheel" BBID water through the Westside Irrigation District canal to serve the farmer.

Treated Water Storage

Based on the criteria presented in Section 12.3.7 of the Master Plan and the average daily water demands presented in Table 4.16-1 above, 23.9 million gallons of treated water storage are required for SP I, SP II, and SP III. Table 7 of the MHCSD Potable Water System Plan Update recommends providing 22.4 million gallons of treated water storage (West Yost, 2003). The Master Plan states that between 60 and 100 percent of treated water storage would be provided in tanks at the WTP. Currently, one 5.5 million-gallon tank exists at the plant, and the plan for ultimate expansion of the WTP shows a second 5.5 million-gallon tank. However, the Potable Water System Plan Update recommends providing 15 million gallons of emergency storage at the WTP and 7.4 million gallons of operational and fire flow storage at other locations for a total of 22.4 million gallons. Some of the storage at the WTP must be allocated to disinfection contact time.

Since the terrain rises to the south of Old River, the Mountain House community will be divided into two water service pressure zones (ECO:LOGIC, 1999). The Business Park will be located in the upper zone (PZ-2). The recommended water distribution facilities are shown on Figure 5 of the Potable Water System Plan Update (West Yost, 2003). Pumps at the WTP would provide pressure for the lower pressure zone (PZ-1) and fill the PZ-1 storage tank. MHCSD is processing an agreement with San Joaquin Delta Community College District for a site for two treated water storage tanks (instead of one as shown on Figure 5 of the Potable Water System Plan Update) at the northeast corner of the community college campus proposed in SP III (Karam, 2005). A 5-million-gallon tank would be constructed to serve PZ-1, and a 2.4-million-gallon tank would be constructed to serve PZ-2. The two tanks would be at the same ground elevation, so water would be pumped from the PZ-2 tank to provide sufficient pressure for the PZ-2 water distribution system. This pump station would be located adjacent to the PZ-2 tank.

Until agreement is reached with the college district, MHCSD will retain all other options for treated water storage tank sites. These options include the alternative site, owned by Trimark Communities, LLC, the developer of SP II, in Alameda County where Grant Line Road crosses the county line (Karam, 2005). The applicant for the proposed Business Park project would pay his fair share of the costs of the PZ-2 tank, pressurization pump station, and distribution pipelines to the Business Park site. The applicant would also pay all the costs of the potable and non-potable water distribution system within the proposed Business Park site.

Implementation Measure 2 in Section 12.7 of SP II states that development permits would be required for water storage facilities located off the WTP site. Tank sites located outside Mountain House (e.g., in Alameda County) would have to be acquired by MHCSD before construction of the tanks could proceed. Implementation Measure 4 in Section 12.10 of SP II establishes requirements for water storage tanks located outside San Joaquin County. Implementation Measure 3 in Section 12.10 of SP II presents criteria for reducing the visual impact of water storage tanks.

Construction-Related Impacts

Water distribution system improvements would be constructed in conjunction with the grading for the street system and before the streets are paved. Construction impacts would include noise and dust from construction equipment and traffic impacts associated with removal of spoils (excavated soil not replaced in pipeline trenches as backfill) and delivery of pipe, valves and fire hydrants. These impacts would be temporary, extending only through the period of construction. Construction impacts were discussed in the 1994 MEIR. No additional construction-related mitigation measures are necessary.

Wastewater Generation

Table 4.16-2 presents the projected average daily wastewater generation for SP I, SP II and SP III, at buildout, assuming 14 percent water conservation can be continually maintained. Assuming 95 percent of the water consumed in the buildings enters the sanitary sewer system, the Business Park would generate 110,000 gallons per day or 0.11 mgd of the SP I wastewater generation when the park is fully occupied. SP I projected that the Business Park would generate 195,000 gallons of wastewater per day. The difference in these two values results from the fact that the wastewater generation rates in Table 13.1 of SP I are significantly higher than the water demand rates in Table 12.1. To generate more wastewater than the amount of water consumed is impossible.

Table 4.16-2: Wastewater Generation

Area	Average Daily Flow (mgd)
SP I	1.79[a]
SP II	2.69[b]
SP III	0.93[c]
Total	**5.41**

[a] San Joaquin County Community Development Department, *SP I Land Use by Neighborhood – Existing vs. Actual Units*, draft table, June 9, 2004.
[b] San Joaquin County Community Development Department, *SP II Land Use by Neighborhood-Proposed vs. Existing*, spreadsheet, May 11, 2004.
[c] EDAW, *Mountain House New Community Specific Plan III*, June 16, 2004, Table 13-1.

Wastewater Treatment

Capacity

A MHCSD expansion project, which includes conversion of the WWTP to activated sludge sequential batch reactors, is currently underway. Following completion of this project, the WWTP will have an average daily flow capacity of 3.0 mgd. Development of the residential neighborhoods in SP I could continue before the WWTP must be expanded again beyond 3.0 mgd. However, MHCSD would have to expand its WWTP again before it can serve all of SP I, SP II and SP III, including the Business Park. The WWTP must also be designed to accommodate peak wet-weather flows that include infiltration and inflow caused by rainfall. Environmental impacts of full buildout of the WWTP were evaluated in a separate initial study (SJCCDD, 1999).

Sludge Processing

Following the current WWTP expansion project, when sequential batch reactors replace the existing aerated lagoons, sludge will be stabilized by two-stage aerobic digestion and de-watered using high speed centrifuges to produce a cake dry enough for hauling by truck. The de-watered sludge will meet United States Environmental Protection Agency Part 503 regulations for Class B biosolids. De-watered sludge will be: (1) sold to a manufacturer of fertilizers and soil amendments, (2) trucked to agricultural lands for use as a soil amendment, or (3) trucked to a landfill that accepts wastewater treatment sludge. Section 13.8 of the Master Plan includes seven implementation measures addressing interim sludge disposal, development of sludge disposal options, sludge characterization and classification, preparation of a sludge disposal program, and changing methods of sludge disposal. Assuming these implementation measures are implemented, no new significant impacts will occur related to sludge processing.

Construction-Related Impacts

Expansions of the WWTP would be confined to the site of the existing plant. Construction impacts will include noise and dust from construction equipment and traffic impacts associated with truck traffic removing spoils and debris and delivering construction materials and equipment. These impacts will be temporary, extending only through the periods of construction. Construction impacts were discussed in the Initial Study/Mitigated Negative Declaration for the WWTP (SJCCDD, 1999). No additional construction-related mitigation measures are necessary.

Reclaimed Water

MHCSD has evaluated opportunities regarding possible use of reclaimed water (i.e., tertiary-treated and disinfected wastewater) to reduce the demand for potable water for landscape irrigation. In most situations, installation of reclaimed water pipelines under every street in a community is quite expensive. Installation is cost-effective only when there is a large reclaimed water user, such as the golf course or the East Altamont Energy Facility, at the end of the pipeline. Then, parks and smaller landscape irrigation demands close to the pipelines can also be served economically. Future use of reclaimed water would have to be approved by the Central Valley RWQCB, and the tertiary treatment process and resulting effluent quality would have to meet the requirements of Title 22 of the California Code or Regulations as required by the California Department of Health Services. The infrastructure systems north of Byron Road would be designed and constructed to allow the use of reclaimed water on the future golf course, parks and open space north of Byron Road. Sleeves for future installation of reclaimed water distribution purple pipelines would be installed under roads between the WWTP and future golf courses during development of SP II. Use of reclaimed water at the Business Park is not anticipated because there is no large demand that would justify the cost of a pump and delivery pipeline system from the WWTP to the Business Park. Use of non-potable raw water is anticipated for landscape irrigation within the Business Park.

Wastewater Collection

Local sanitary sewers to serve the Business Park will be installed along the streets prior to paving the streets. Within the Business Park, the sanitary sewers will consist of 8- to 12-inch-diameter pipelines connected to a 12-inch-diameter sewer extended along DeAnza Boulevard from Neighborhood B on the north side of the Business Park site (Siegfried Engineering, 2004). Construction impacts will include noise and dust from construction equipment and traffic impacts associated with removal of spoils and delivery of pipe and pre-cast concrete manholes. These impacts will be temporary, extending only through the period of construction. Construction impacts were discussed in the 1994 MEIR. No additional sewer construction-related mitigation measures are necessary.

Financing

Under MHCSD Resolution No. 472, Pegasus–M.H. Ventures I will have to pay the project's fair share of the design and construction of Mountain House community infrastructure improvements and for the project's fair share of plans and programs to implement Community Approvals. These fees are established by Section MH-3-1401 of the MHCSD Ordinance Code. The infrastructure improvements include the following:

- Over-sizing the water, wastewater, and storm drainage systems to serve the Business Park;
- The first fire station on Mascot Drive;
- Arterial streets that have already been constructed; and
- Parks and recreation facilities that have already been constructed.

In addition to the costs for implementing County Approvals, the plan and program implementation fee also covers the applicant's proportionate share for the costs incurred by another developer (e.g., Trimark Communities, LLC) for funding initial operation and maintenance cost shortfalls in MHCSD budgets (Karam, 2004; Milnes, 2004).

Mitigation Measures

See 1994 MEIR Mitigation Measures M4.4.2-1, M4.4.2-2, M4.4.2-3, M4.4.2-4, M4.4.1-1, M4.4.1-2, M4.4.1-3, M4.4.1-4, M4.4.1-5, M4.4.1-6, and M4.4.1-7, which were subsequently incorporated into the Master Plan.

c) Would the project 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?

A storm drain system to serve the Business Park will be constructed under streets prior to paving the streets. The system would consist of gravity-flow pipelines (i.e., storm drains) with lateral pipes to catch basins (a.k.a. drop inlets) installed at intervals along the street gutters. These storm drains will consist of 15- to 48-inch-diameter pipelines that will collect surface runoff and convey it north to a 48-inch-diameter pipeline extended south along

DeAnza Boulevard from Neighborhood B on the north side of the Business Park site (Siegfried Engineering, 2004). The storm drain system would convey flows north for first-flush treatment in Water Quality Basin #1 prior to discharge to Mountain House Creek and, ultimately, Old River. The first flush contains more pollutants than succeeding storm runoff because it contains the pollutants that have collected on the ground and streets since the preceding storm.

Storm drain construction impacts would include noise and dust from construction equipment and traffic impacts associated with removal of spoils and delivery of pipe and pre-cast concrete manholes and catch basins. These impacts would be temporary, extending only through the period of construction. Construction impacts were discussed in the 1994 MEIR. No additional sewer construction-related mitigation measures are necessary.

A storm drain pipeline would be extended east and south to accommodate off-site flows from Sub-basin 9A, a 0.4-square mile area south of I-205. Excess storm runoff is conveyed under I-205 through an existing approximately 30-inch-diameter pipeline into the Business Park site. Storm runoff from Sub-basin 9A would be conveyed through the Mountain House storm drain system to Water Quality Basin #1 and Mountain House Creek.

The storm drain system would be designed to accommodate runoff flows from the 10-year storm event unless a 100-year storm event would cause excessive street flooding that could prevent access for emergency vehicles. If excessive street flooding would occur, that portion of the system would be designed to accommodate a 100-year storm event. The Mountain House Storm Water Master Plan Update addressed this issue for two major arterial streets (DeAnza Boulevard and Mountain House Parkway). The analysis found that there would be less than 6 inches of water in the left-hand lanes (i.e., the inside lanes) of the four-lane streets during a 100-year flood event, and that emergency vehicles could pass in the left-hand lanes (PACE, 2003). However, the ability to pass on minor side streets was not addressed. A 10-year storm has a 10 percent statistical chance of occurring each year, and a 100-year storm has a one percent chance of occurring each year.

Under the federal Clean Water Act, the U.S. Environmental Protection Agency requires that any water discharged from a construction site larger than five acres must be in compliance with the National Pollutant Discharge Elimination System (NPDES). The California Water Resources Control Board, which is responsible for implementing and enforcing the NPDES, issued a statewide general permit for construction activities. Provisions of the general permit require that the following issues be addressed with respect to water quality: (1) erosion and sedimentation during clearing, grading or excavation of a site; and (2) the discharge of storm water once construction is completed. The applicant would obtain coverage under this permit by: (1) submitting a Notice of Intent to the Central Valley RWQCB that identifies the responsible party, location, and scope of construction; and (2) developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). SWPPPs are required for specific construction projects under the Statewide general NPDES construction permit. SWPPPs for construction at Mountain House are prepared for each public facility (e.g., the water and wastewater treatment plants) or neighborhood (Willett, 2004). A SWPPP would have to be prepared for construction of the Business Park. It would be prepared by the applicant prior to commencement of construction (Gray, 2004).

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.4.3-1, which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

MHCSD has completed a Water Supply Assessment (WSA) as required by Senate Bill 610 and the California Water Code (West Yost, 2004) for Specific Plan II. This assessment is required for any residential development (such as the Mountain House community of which the Business Park is a part) greater than 500 dwelling units and is included by reference in this Initial Study. A WSA includes a projection of water demand at 5-year increments for the next 20 years and assesses the availability and reliability of the local water supply for the development in normal, single dry, and multiple dry years. Although the WSA was specifically written to address SP II, it also includes water demands for SP I (including the Business Park) and SP III to present a complete analysis for the entire Mountain House community. The conclusions of the MHCSD WSA are summarized as follows:

- MHCSD has a firm water supply of 9,413 afy from BBID to serve the Mountain House community, and it is highly unlikely that this supply would ever be curtailed during drought years.
- As presented in Table 4.16-1, the total average demand for the Mountain House community at buildout would be 9,670 afy, assuming 14 percent conservation can be continually maintained without any rationing. This demand exceeds the contracted supply from BBID by 257 afy.
- The agreement between MHCSD and BBID allows BBID to supply more than 9,413 afy to MHCSD if BBID has excess water available. Projections of all the future demands for BBID are presented in Table 1 of the WSA. The projections indicate that BBID would have 5,896 afy of excess water in the year 2025 assuming a 5,634 afy supply of reclaimed water is available to supplement BBID's 50,000 afy water-right allotment agreed to by DWR. If no reclaimed water is available because no reclamation projects had been implemented, the excess would be 262 afy. Therefore, BBID could supply an additional 257 afy to MHCSD to satisfy the excess demand described above.
- The Master Plan (Figure 12.1) states that land north of Byron Road between the El Pescado Grant Line and Old River have riparian water rights amounting to 2,600 afy that could be used by these lands.
- Chapter 2 of MHCSD Ordinance 4056 establishes five stages of water allocations (i.e., rations) that could be enacted to reduce demand during water shortage emergencies.

If these demand projections with 14-percent conservation prove realistic, the MHCSD supply from BBID would be sufficient for the entire Mountain House community under all hydrologic conditions. However, Table 12.1 of the Master Plan reveals that using San Joaquin County standard unit demand rates, the projected water demand for the entire

Mountain House community at buildout would be approximately 12,900 afy (without water conservation), which exceeds the contracted BBID supply by almost 3,500 afy or 900 afy if the 2,600 afy riparian water is used. The land uses, numbers of different dwelling units, and resulting water demands have changed since publication of the Master Plan. Nevertheless, the amount of water conservation that is actually achieved is an important factor in providing a reliable water supply to meet future demands.

The MHCSD Potable Water System Plan Update (West Yost, 2003) states that "at this level in planning a new community, it may be a little premature to assume that this aggressive conservation goal [14 percent] will be met." The authors recommend that the demands presented in the Potable Water System Update and WSA be treated as "bookends" for planning future water supply facilities. The locations and sizes of the of recommended water distribution facilities shown on Figure 5 of the Potable Water System Update are based on the future demands in the Potable Water System Update.

If the actual water demand is greater than projected in the WSA, BBID may not be able to provide enough water for the entire Mountain House community at buildout. If future analyses of actual water consumption prove that this is the case, a supplemental source of supply should be developed. Trimark Communities, LLC, the developer of SP II, owns the land south of Old River (north of Byron Road) where Neighborhoods I through L would be developed. Trimark also owns riparian water rights that are tied to the land based on its prior use for irrigated crop production. One possibility for increasing the water supply for Mountain House would be for Trimark Communities to transfer its riparian water rights to the MHCSD. The water that could be withdrawn from Old River under these rights would be allowed to flow downstream and join the waters in the greater San Joaquin Delta system. The same quantity of water could then be withdrawn by BBID from the California Aqueduct (which conveys water from the Delta) to supplement the Mountain House community supply by "wheeling" the water back to the MHCSD WTP. This plan could supplement the BBID supply by an estimated 2,600 afy. It should be noted that these riparian rights could be curtailed by DWR during a water shortage in dry years.

This plan would require approval by both BBID and DWR. The assistance of lawyers with water-law expertise would be needed to prepare this agreement and the other documentation necessary for this water-rights transfer. For example, the WSA states that as individual parcels are sold, specific language must be included in the grant deeds that retains the riparian water rights with the land even though the rights have been previously transferred to MHCSD.

Assuming 14 percent continuous water conservation can be achieved, the available water supply from BBID is sufficient to supply the entire Mountain House community at buildout. Thus, there would be no need for additional or expanded water supply entitlements, and there would be no significant impacts. If continuous water conservation is less than 14 percent, an additional 2,600 afy of water supply could be obtained through transfer of the riparian water rights from Trimark Communities, LLC, to MHCSD, although this additional supply may not be available in dry years due to DWR curtailments.

Specific Plan II Implementation Measure 12.2.2 states that if in the future there is insufficient water for buildout of the community, then measures shall be taken to obtain an additional water supply, implement more extensive conservation measures, or revise the Master Plan. Presumably, revising the Master Plan would mean reducing the number or mix of future dwelling units in order to reduce water demand. Combinations of these three corrective measures could be implemented.

Mitigation Measures

No mitigation measures are required.

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

MHCSD is the wastewater treatment provider for the Mountain House community and does not have a commitment to provide wastewater treatment for any other community or area. MHCSD may provide wastewater treatment to existing houses within the Mountain House community on the south side of Grant Line Road and the south bank of Old River if those property owners choose to annex to MHCSD, but the amount of wastewater generated by these houses would be small. Future expansions of the WWTP are discussed in item b), above. Since the RWQCB would require that MHCSD expand the WWTP prior to serving houses or buildings in SP I, SP II or SP III, MHCSD would always have adequate wastewater treatment capacity. This potential significant impact is adequately addressed in the 1994 MEIR, and no additional mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Solid waste from the Business Park would be collected by West Valley Disposal and brought to the Tracy Materials Recovery and Transfer Facility. Non-recyclable garbage would then be trucked to the Foothill Landfill in eastern San Joaquin County for disposal. The Foothill Landfill has a total remaining disposal volume of 76 million cubic yards. The San Joaquin County Solid Waste Division estimates that Foothill Landfill will be able to provide solid waste disposal for all of San Joaquin County south of Stockton until the year 2044 (Johnson, 2004). Hazardous waste generated in San Joaquin County is either disposed of at Forward Inc., a Class II landfill within the County, or is transported outside the County to another Class I or II landfill for disposal.

According to the 1994 MEIR, the Tracy Materials Recovery and Transfer facility is anticipated to reach full operating capacity by the year 2010, and an expansion of the facility and/or construction of additional transfer facilities will be needed. As shown on Figure 13.3 of the Master Plan, a 10-acre site in Old River Industrial Park of the Mountain House

community will be reserved for a Materials Recovery Facility and solid waste transfer station in case the Tracy facility is not expanded. If the Tracy facility is expanded, the Mountain House site could be made available for other public uses.

The California Integrated Waste Management Board has solid waste generation rates for various types of businesses on its website. Based on weighted composites of several of the rates for applicable types of businesses that would be located at the Business Park, the estimated amount of solid waste that will be generated at the Business Park when fully occupied is presented in Table 4.16-3.

Table 4.16-3
Solid Waste Generation

Zoning Designation	Employees[a]	Generation Rate[b] (tons/employee/year)	Solid Waste Generation (tons/year)
Commercial Office	351	1.3	456
Freeway Service Commercial	320	2.8	896
Industrial Park	2,900	1.1	3,190
Totals	**3,661**	**NA**	**4,542**

Notes: [a] Pegasus–M.H. Ventures I, Mountain House Business Park Jobs–Housing Ratios, September 10, 2004.

[b] http://www.ciwmb.ca.gov/WasteChar/DispRate.htm. Generation rates in Table 4.16-3 are weighted composites of several rates on the website.

The San Joaquin County Solid Waste Division estimates that 82.5 percent of household waste is disposed of in landfills (Johnson, 2004). The remaining 17.5 percent is recycled or composted. Assuming the same percentage of Business Park solid waste is disposed of in landfills, the Business Park would generate approximately 3,747 tons per year when fully occupied that would be disposed of at the Class III Foothill Landfill. Each ton of solid waste would occupy approximately 0.375 cubic yards of landfill space when it is compacted in the landfill (Johnson, 2004). Therefore, the Business Park would generate solid waste that would occupy approximately 70,259 cubic yards of compacted landfill over the next 50 years. This volume is about 0.1 percent of the remaining disposal capacity of the Foothill Landfill. This potential significant impact is adequately addressed in the 1994 MEIR, and no additional mitigation measures are required.

There will be approximately 41,800 residents at buildout of SP I, SP II, and SP III. San Joaquin County Solid Waste Division estimates that each household resident would generate approximately 8 pounds of solid waste per day, of which 6.6 pounds per day (82.5 percent) or 1.2 tons per year would be disposed of in landfills (Johnson, 2004). Table 3.1 of the Master Plan reveals that approximately 21,900 jobs would be produced by the commercial, industrial, education and public service land uses at the Mountain House community.

Using the overall average generation rate from Table 4.16-3, these jobs would produce approximately 24,900 tons of disposable solid waste per year. Using the same analysis as above, the solid waste generated by the three specific plans would occupy approximately 1,397,000 cubic yards of compacted landfill over the next 50 years. This volume is about 1.8 percent of the remaining disposal capacity of the Foothill Landfill. This potential significant impact is adequately addressed in the 1994 MEIR, and no additional mitigation measures are required.

Construction at the Business Park would generate considerable amounts of waste wood, metal and other materials that could be recycled into useful products or help reduce the demand for new construction materials. The Master Plan Implementation 6.7.d states "recyclable construction waste shall be separated [from non-recyclable construction waste], and arrangements shall be made with the County, or on-site recycling services, for collection. Recycling of construction wastes shall be made part of the construction specifications for contractors." This implementation measure has been implemented for construction of Neighborhood F, the first neighborhood to be developed in the Mountain House community (Teed-Bose, 2004). Assuming implementation continues, the volume of construction wastes would be reduced significantly. This potential significant impact is adequately addressed in the 1994 MEIR, and no additional mitigation measures are required.

Mitigation Measures

See 1994 MEIR Mitigation Measure M4.3.5-1, which was subsequently incorporated into the Master Plan. No additional mitigation measures are required.

g) Would the project c*omply with federal, state, and local statutes and regulations related to solid waste?*

Non-hazardous solid waste from SP I (of which the proposed Business Park is a part), SP II and SP III will be collected and transported to the Foothill Landfill for disposal. Hazardous wastes would be transported to a Class I or II landfill for disposal. These landfills are licensed and operated in compliance with all applicable federal, state and local statutes and regulations regarding solid waste handling and disposal. Development of the Business Park would have no significant impact on compliance with solid waste statutes and regulations.

Mitigation Measures

No mitigation measures are required.

Conclusions

There are no impacts associated with public utilities that were not previously identified in the MEIR. The construction of new water and wastewater treatment facilities or the expansion of existing facilities would not create additional impacts over what was previously addressed in the MEIR. There are no substantial changes with respect to the circumstances under which the 1994 MEIR was certified. There is no new available information, which was not known and could not have been known at the time the 1994 MEIR was certified so that major revisions of the previous MEIR would be required.

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