

# Initial Study

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## **Cochrane Standard Pacific Project**

File Numbers: SD-14-08, DA-14-06, ZA-14-17,  
and EA-14-17

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July 2015

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## SECTION 1.0 INTRODUCTION AND PURPOSE

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This Initial Study of environmental impacts is being prepared to conform to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 et.seq.) and the regulations and policies of the City of Morgan Hill.

This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the Cochrane Standard Pacific project. This Initial Study has been prepared to address the environmental impacts the proposed project's implementation. The Cochrane Standard Pacific site is a 40-acre site (APNs 728-36-013 and -014) that proposes a 135-unit lot single-family residential subdivision. The property is adjacent to the Cochrane Road and Mission View Drive intersection, and is on the west side of Cochrane Road in the City of Morgan Hill. The applicant proposes to amend the current zoning of the project site from *R1-7,000* and *R1-9,000* (APN 728-36-014) and *R1-9,000* (APN 728-36-013) to *R1-7,000, Planned Development (PD)* for APN 728-36-014 and *R1-9,000 PD* for APN 728-36-013, respectively.

This Initial Study also acknowledges the reasonably foreseeable future development of three parcels which are not under the applicant's control, but whose development would be influenced by the proposed project site access and circulation. One parcel (APN 728-36-012) is adjacent to the east of the project site and approximately 20 acres in size, and anticipated to be developed in the future with 58 units. It is also reasonably foreseeable as a result of the subject project that in the future Mission View Drive (which would terminate at the northern boundary of the proposed project) would be extended north to connect to Vista De Lomas through two parcels (APN 728-39-022 and APN 728-38-005).

The City of Morgan Hill is the Lead Agency under CEQA and has prepared this Initial Study to address the impacts of implementing the proposed project.

## **SECTION 2.0      PROJECT INFORMATION**

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### **2.1                  PROJECT TITLE**

Cochrane Standard Pacific Project

File Numbers: SD-14-08, DA-14-06, ZA-14-17, and EA-14-17

### **2.2                  PROJECT LOCATION**

The following sections describe the location of the Cochrane Standard Pacific site. A regional map, vicinity map, and aerial photograph of the project site are provided on Figures 2.2-1, 2.2-2, and 2.2-3, respectively.

*For the purposes of this document, Cochrane Road is considered south of the project site.*

The 40-acre Cochrane Standard Pacific site (APNs 728-36-013 and 728-36-014) is located at 1365 Cochrane Road and 1465 Cochrane Road in Morgan Hill, California. The site is bordered by approximately 20 acres of vacant land and a single-family residence to the east (Future Lands of Cochrane Road residential development, APN 728-36-012), mostly undeveloped land with an unoccupied tent currently used for sports and recreation and a parking lot (which would be a part of the future second phase of the Target Shopping Center project) to the west, Cochrane Road, an outdoor open space area and single-family residences to the south, and several greenhouses, residential and agricultural uses to the north. The property to the west of the Cochrane Standard Pacific site is currently part of a General Plan update that would allow for commercial and mixed-use developments.

### **2.3                  LEAD AGENCY CONTACT**

City of Morgan Hill

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### **2.4                  PROPERTY OWNER/PROJECT APPLICANT**

Standard Pacific Homes, Bay Area

Tony Ponterio, Project Manager

4750 Willow Road, Suite 150

Pleasanton, CA 94588

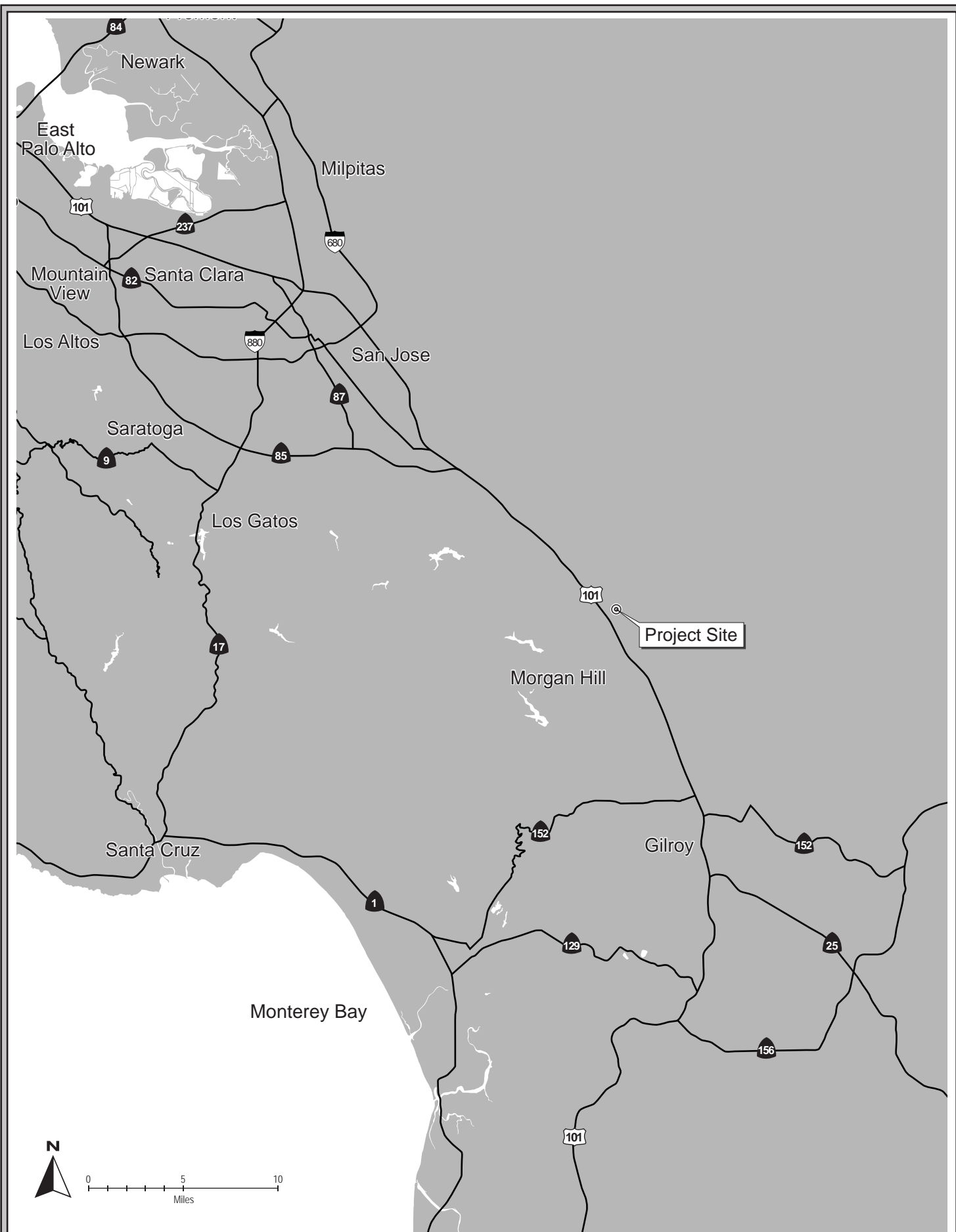
Phone: 925.730.1340

Email: TPonterio@stanpac.com

### **2.5                  ASSESSOR'S PARCEL NUMBERS**

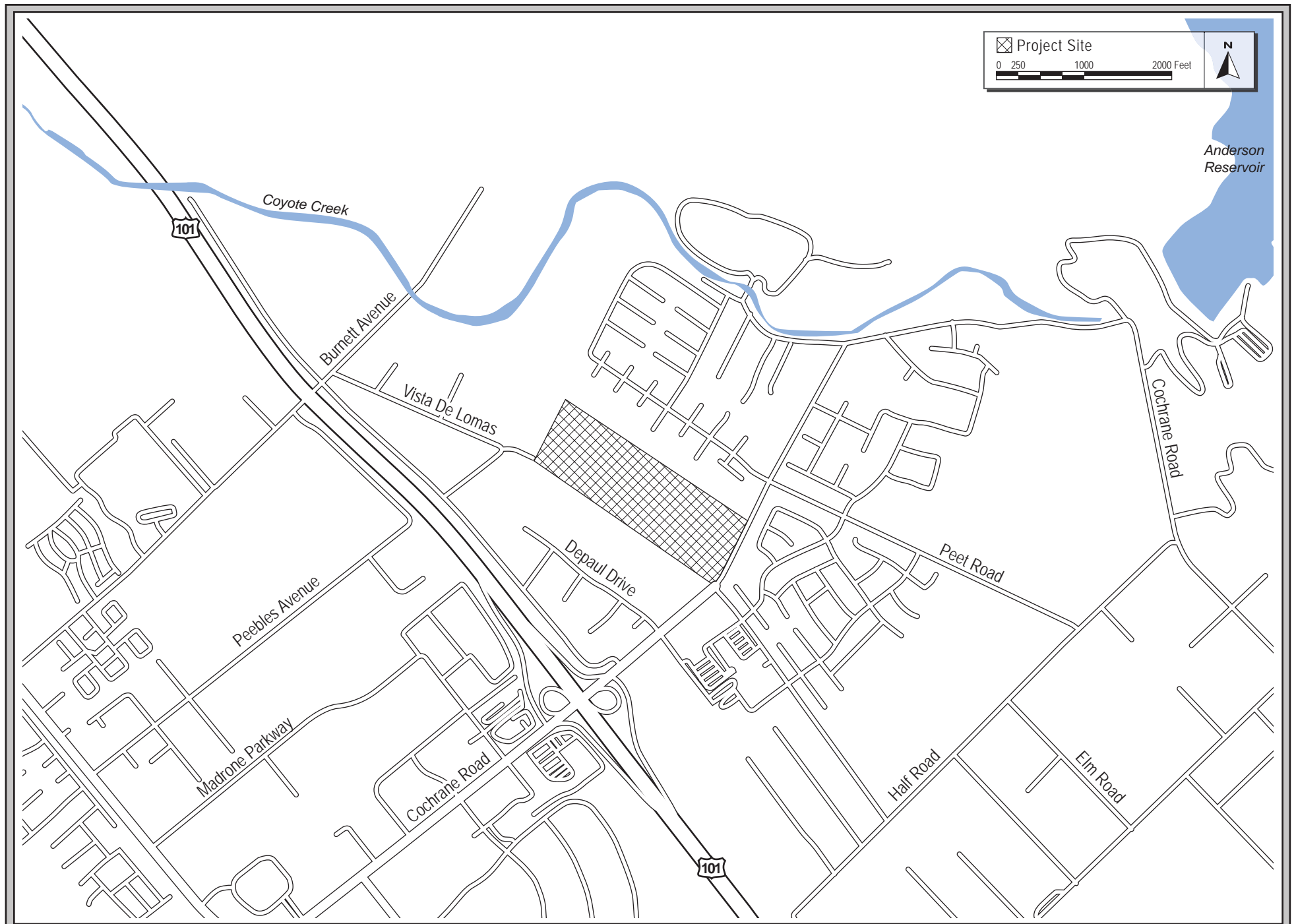
Eastern Parcel: 728-36-013

Western Parcel: 728-36-014



REGIONAL MAP

FIGURE 2.2-1



VICINITY MAP

FIGURE 2.2-2





AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2.2-3



## 2.6 ZONING DISTRICT AND GENERAL PLAN DESIGNATIONS

### 2.6.1 Zoning District

APN 728-36-013: *R1-9,000* (Single-Family District)

APN 728-36-014: *R1-7,000* and *R1-9,000* (Single-Family District)

### 2.6.2 General Plan Land Use Designation

*Single-Family Medium [three to five dwelling units per acre (du/ac)]*

## 2.7 HABITAT PLAN DESIGNATIONS

Land Cover Designations: **APN 728-36-013:** *Grain, Row-crop, Hay and Pasture, Disked/ Short-term Fallowed*

**APN 728-36-014** - *Grain, Row-crop, Hay and Pasture, Disked/ Short-term Fallowed* (19.1 acres), *Rural Residential* (0.4 acres)  
*Urban - Suburban* (0.1 acres)

Development Zone: *Private Development Covered* (entire site)

Fee Zone: *Fee Zone B (Agricultural and Valley Floor Lands)*

Owl Conservation Zone: *N/A*

## 2.8 PROJECT-RELATED APPROVALS, AGREEMENTS AND PERMITS

Approval of the proposed project would require a Zoning Amendment for Planned Development (PD), Precise Development Plan, Tentative Map, and Development Agreement. The project would require Grading and Building Permits.

## **SECTION 3.0      PROJECT DESCRIPTION**

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### **3.1              OVERVIEW**

This Initial Study provides project-level CEQA analysis to allow for the development of 135 single-family houses on the 40-acre Cochrane Standard Pacific site in the City of Morgan Hill (refer to Figure 3.1-1 for the Project Site Plan).

#### **3.1.1            Setting**

The project site is approximately 40 acres and is comprised of two 20-acre parcels (APN 728-36-013 and APN 728-36-014).

The eastern 20-acre parcel (APN 728-36-013) consists of open, undeveloped land with non-native annual grasses and shrubs, one almond tree and one elderberry tree. Recently, the parcel has been used as a cattle pasture. There is a small shade shelter (formerly used for cattle) in the southeast corner of the parcel and a watering trough along the east boundary. The western parcel (APN 728-36-014) consists of a former vineyard (approximately 16 acres), with vacant land with non-native grasses, and two avocado trees.

The project site is bordered by approximately 20 acres of vacant land and a single-family residence to the east (Future Lands of Cochrane Road residential development, APN 728-36-012), mostly undeveloped land with an unoccupied tent currently used for sports and recreation and a parking lot (which would be a part of the future second phase of the Target Shopping Center project) to the west, Cochrane Road, an outdoor open space area and single-family residences to the south, and several greenhouses, residences and agricultural uses to the north.

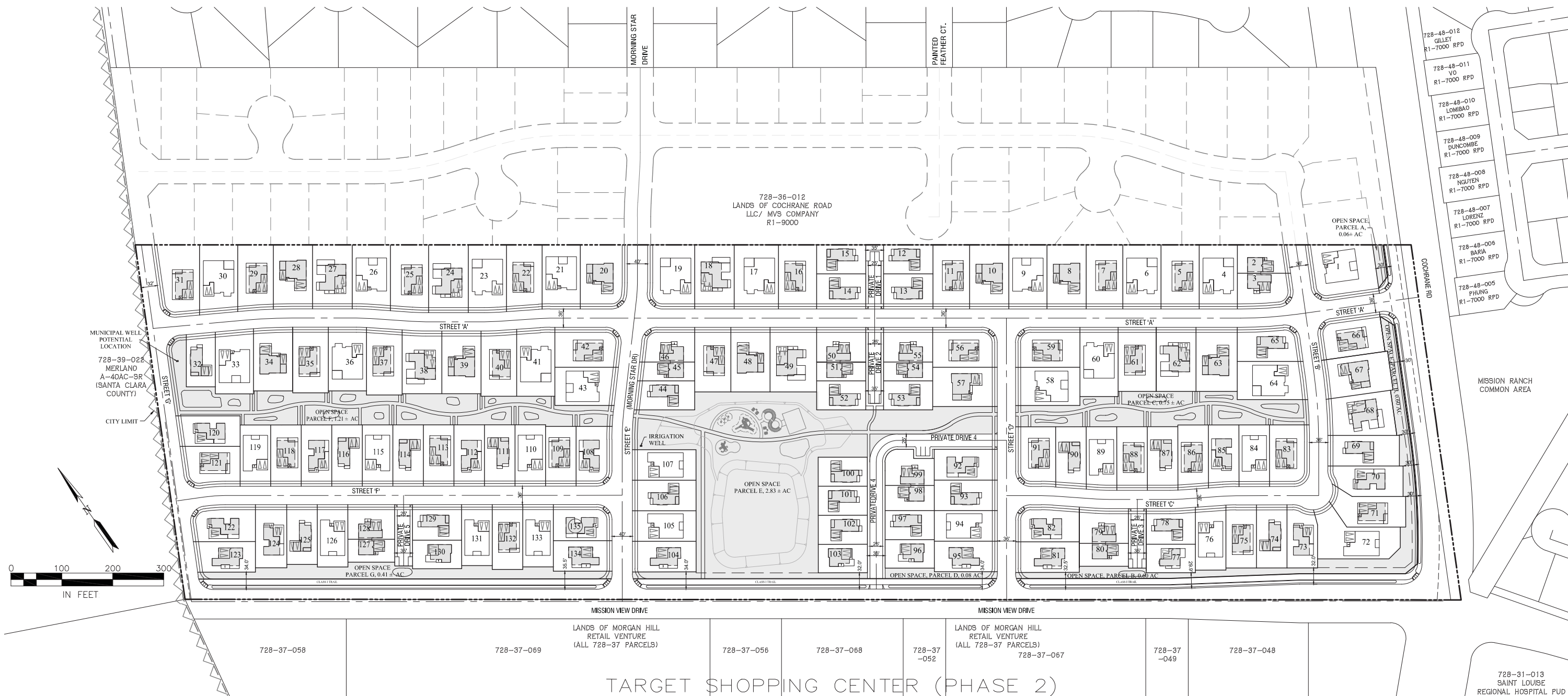
### **3.2              PROPOSED DEVELOPMENT**

#### **3.2.1            Site Design**

The project proposes to subdivide two parcels (APN 728-36-013 and -014) into 135 residential lots and seven open space/non-building lots, allowing for the development of 135 one- and two- story single-family houses with two-<sup>1</sup> to three-car garages and private driveways. The residential lot sizes would range from approximately 3,550 to 13,600 square feet and the open space lots would range from 0.06 to 2.8 acres. The open space non-building lots include a 2.8-acre common open space area (which includes a biotreatment and infiltration area and a hydromodification basin), and six smaller (0.06 to 1.2 acres) common open space areas.

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<sup>1</sup> At least one of the models (homes) (with a two-car garage) will have an option to build an office or an additional garage (one-car).



The size of the residences would range from approximately 2,080 to 3,930 square feet. Six models are proposed for the two-story homes and two models are proposed for the one-story residences; each model includes Spanish-, French-, American Farmhouse- and/or a Craftsman- style houses. The maximum building height of the residences would be 30 feet. New landscaping and trees are proposed for the front yards, side yards, and backyards of the proposed residences.

Of the 135 residences planned for construction on the site, approximately 41 residences are planned for construction for years 2015 to 2016 and 30 residences for years 2016 to 2017. The remaining 64 residences would be constructed in 2018 and subsequent years; construction of the remaining residences would be allocated based upon the City's Residential Development Control System (RDCS) process (refer to Section 4.10, *Land Use* for a more detailed description of the RDCS process). The project would include construction of roadways, sound walls, open space, stormwater treatment areas, and utilities, as described below.

### **Access and Circulation**

The project site would be accessed via Cochrane Road and an extension of Mission View Drive. A portion of the planned Mission View Drive extension would be constructed as part of the proposed project. The project improvements would include the construction of half street improvements of Mission View Drive along the project site's frontage, from the Mission View Drive and Cochrane intersection to the project site's northern boundary. A traffic signal would be installed at the Mission View Drive and Cochrane Road intersection as a part of the Mission View Drive extension project improvements.

New internal streets and five private drives are proposed for the project site. Mission View Drive would provide access to three new internal streets and Cochrane Road would provide access to one internal street. The new internal public streets would have pavement ranging from 28 to 40 feet in width and would have public right-of-ways (ROWs) with widths ranging from 36 to 40 feet that would connect to new sidewalks throughout the development. Three internal streets would provide access to the Future Lands of Cochrane Road residential development (APN 728-36-012).

The new private drives would provide 25-foot wide vehicular access. Four of the private drives (Private Drives 1-3, and 5) would have five-foot wide attached sidewalks on both sides of the street. The east-west trending segment of the other private drive (Private Drive 4, located on the western end of the site) would also have sidewalks on both sides of the street; the north-south trending segment of this private drive would have a sidewalk on the west side of the street. The private drives would provide vehicular access to designated lots, and would include easements that allow for public utilities and emergency vehicular access.

The proposed project would include a Class I bicycle path off of Mission View Drive (adjacent to the open space areas located on the western end of the site), which would extend from the southern end (near Cochrane Road) to the northern end of the site.

## **Open Space and Stormwater Treatment**

The project includes approximately 2.8 acres of common open space area and six smaller (0.06 to 1.2 acres) common open space areas. The 2.8-acre open space area includes a biotreatment and infiltration area and a hydromodification basin area. All open space areas would consist of trees and landscaping. The 2.8-acre common open space area would also include a barbecue/picnic area.

Stormwater runoff from the proposed development would be managed via stormwater control measures such as linear bioswales and bioretention basins for smaller storm treatment and infiltration, and a larger centralized hydromodification basin to address peak flow mitigation for larger, less frequent storm events. The hydromodification basin would be located in the central open space (approximately 2.8-acres). All treatment measures and the hydromodification basin would be designed in accordance with the San Francisco Regional Water Quality Control Board C.3 requirements and City of Morgan Hill Design Standards.

## **Utilities**

Pursuant to the City's Standard Conditions of Approval IV, the site's stormwater collection system would be designed to handle a 10-year storm without local flooding. On-site detention facilities would be designed to a 25-year storm capacity. Streets would be designed to carry a 100-year storm.

Runoff is proposed to be conveyed to the smaller treatment facilities via surface flow in street gutters in conjunction with curb cuts or under sidewalk drains. Excess runoff is proposed to be collected in a new underground pipe conveyance system comprised of 15-inch to 18-inch diameter storm drains, which outfall to the central hydromodification basin. An overflow structure and pipe system would convey excess runoff from the hydromodification basin to the existing City of Morgan Hill storm drain system at the intersection of Peet Road and Eagle View Drive, which ultimately discharges to Coyote Creek.

A new 12-inch water line (on Mission View Drive) would connect to the City's existing 12-inch water line on Cochrane Road. A new eight-inch water main would connect to the project site. The new water main would connect to an existing 12-inch water main on Cochrane Road.

Electricity and gas would be provided by Pacific Gas & Electric. Solid waste would be collected by Recology South Valley. The proposed development would connect to new eight-inch sanitary sewer lines in the proposed streets serving the site.

### **3.2.2 Project Approval Process**

Approval of the proposed development on the Cochrane Standard Pacific site would require a Zoning Amendment for Planned Development (PD), Tentative Map, Precise Development Plan and Development Agreement.

In the City of Morgan Hill, approval of a PD is considered when the project would facilitate and promote coordination of design and access, and when it would enhance the area in which the project is proposed (Municipal Code Section 18.30.010). The PDs which are proposed by each project



would establish a development plan with flexibility in the development standards for the *R1-7,000* and *R1-9,000* zoning districts including the inclusion of alternative housing types, reduced setbacks, lot widths, and lot sizes.

### **3.3 RELATED FUTURE DEVELOPMENT ON ADJACENT PARCELS**

#### **3.3.1 Future Lands of Cochrane Road Residential Project**

Fifty eight additional units are anticipated on a parcel (Future Lands of Cochrane Road residential development, APN 728-36-012) adjacent and to the east of the project site (refer to Figure 3.1-1). The Future Lands of Cochrane Road property (APN 728-36-012) has a *Single-Family Medium (3 to 5 du/ac)* General Plan land use designation and is within a *R1-9,000* zoning district, both of which allow for future residential subdivision. This adjacent parcel, however, is not controlled by the applicant for the project site and applications for development of APN 728-36-012 are not currently on file with the City. Nonetheless, preliminary information about the potential future development of this parcel is available, as shown in Figure 3.3-1. Development of this adjacent parcel would require a subdivision prior to development, and that subdivision would be reviewed, independent of the subject project application, for conformance with the General Plan and Zoning Code. Ultimately, the subject project is not causing the adjacent site (APN 728-36-012) to be developed, nor does it require or rely upon the development of the adjacent parcel, but would influence how the adjacent parcel is developed, based on the proposed road connections. Three new streets for the project site would extend to the border of the site with the intent for the new streets to eventually connect to roadways associated with the development on the Future Lands of Cochrane Road project which in turn would connect to Peet Road.

Project-level environmental review would occur as part of the future development applications for the adjacent parcel, when they are filed (the timing of which is unknown). The level of future environmental review for the parcel would be determined by the City acting as lead agency, pending review of a project development application.

While several key details pertaining to development of the parcel (APN 728-36-012) adjacent to the project site are currently unknown, approval of the proposed project would commit future development on this adjacent parcel to a definite roadway system that connects to the new roadway proposed by the project. Because of the proposed placement of roadways on the adjacent parcel east of the site (APN 728-36-012), the future development of this adjacent parcel would be partially defined by the proposed project. This Initial Study discusses, in each applicable topic section, the environmental effects that can reasonably be predicted to occur on the adjacent parcel (APN 728-36-012) as a result of decisions related to development of the project site.

#### **3.3.2 Future Extension of Mission View Drive to Vista De Lomas**

The proposed development of the project site would include the extension of Mission View Drive from Cochrane Road north to the northwest boundary of the project site. The future extension of Mission View Drive to Vista De Lomas was accounted for in the City's General Plan Circulation Element Update EIR and is planned for completion by 2030. The future extension of Mission View Drive would extend from the center line of the proposed northern terminus of Mission Drive (on the

project site) to the center line of the existing Vista De Lomas and would have a right of way width of 78.5 feet.<sup>2</sup> Development of the Mission View Drive roadway extension would commit future development of the Mission View Drive roadway extension to the Vista De Lomas segment immediately to the north of the project site, between adjacent parcels APN 728-39-022 and APN 728-38-005. Because the extension of Mission View Drive north to Vista De Lomas would be partially defined by the proposed project, this Initial Study, in each applicable topic section, discusses the environmental effects that can reasonably be predicted to occur on the parcels north of the project site. Figure 3.3-1 shows the potential design for the future Mission View Drive extension to Vista De Lomas.

### **3.4. ZONING AND GENERAL LAND USE DESIGNATION**

#### **3.4.1 General Plan Land Use Designation**

The current General Plan land use designation for the project site is *Single-Family Medium (3-5 dwelling units per acre [du/ac])*, which allows for single-family residences at densities ranging from 3 to 5 du/ac. The site would retain the current General Plan land use designation.

#### **3.4.2 Zoning Districts**

The eastern parcel (APN 728-36-013) of the project site is currently within the *Single-Family Medium Density District, R-1 9,000* zoning district. This zoning allows for single-family detached residences to be developed on a minimum lot size of 9,000 square feet and 4,500 square feet for duplexes (two single-family attached units) on corner lots. The proposed zoning for this parcel is *R-1 9,000 PD*. The PD would allow flexibility in development regulations to accommodate the proposed design.

The western parcel (APN 728-36-014) is currently within the *Single-Family Medium Density Districts, R-1 7,000* and *R1-9,000* zoning districts. This zoning allows for single-family detached residences to be developed on minimum lot sizes of 7,000 square feet and 3,500 square feet for duplexes (two single-family attached units) on corner lots, respectively. The proposed zoning for this parcel is *R-1 7,000 PD*. The PD would allow flexibility in development regulations to accommodate the proposed design.

<sup>2</sup> Standard Pacific Homes and Ruggeri, Jensen, and Azar (RJA). *Mission View Drive Possible Connection, Alternate 01 (Site Plan)*. June 29, 2015.



POTENTIAL DESIGN FOR THE FUTURE MISSION VIEW DRIVE EXTENSION TO VISTA DE LOMAS

FIGURE 3.3-1

## SECTION 4.0      SETTING, ENVIRONMENTAL CHECKLIST AND IMPACTS

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*This section describes the existing environmental conditions on and near the project area, as well as environmental impacts associated with the proposed project. The environmental checklist, as recommended in the California Environmental Quality Act (CEQA) Guidelines, identifies environmental impacts that could occur if the proposed project are implemented.*

*The right-hand column in the checklist lists the source(s) for the answer to each question. The sources cited are identified at the end of this section. Mitigation measures are identified for all significant project impacts. “Mitigation Measures” are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines §15370). The City of Morgan Hill’s Standard Conditions of Approval are identified, where applicable, throughout this Initial Study.*

### **4.1              AESTHETICS**

#### **4.1.1            Setting**

##### **4.1.1.1        *Existing Conditions***

The project site’s eastern parcel (APN 728-36-013) is mostly open, undeveloped land with seasonal grasses and shrubs. The site was used for agricultural purposes (orchard) from 1939 through the 1990s. The site was most recently used as a cow pasture. A small wooden cattle shading shelter, a small triangular ancillary structure, and wooden fencing occurs on the southeast corner of the site. Based on historical aerial photographs,<sup>3</sup> the structures on-site were constructed after 1998. There are no unique features that occur on any of the on-site structures. There is one elderberry and one almond tree located on this section of the site.

The western parcel (APN 728-36-014) is undeveloped land and mostly comprised of remnants of a former vineyard (approximately 16 acres former row crops). There are two avocado trees within the former vineyard. The site was used for agricultural purposes from 1939 through 2012. The remaining portion of the site is comprised of open seasonal grassland area.

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<sup>3</sup> Engeo. *Modified Phase I Environmental Site Assessment, Barbara Property*. August 2013.





**Photo 1:** Eastern parcel (APN 728-36-013) - facing north.



**Photo 2:** Western parcel (APN 728-36-014) - facing north.





**Photo 3:** Former Vineyard on the western parcel– facing east.



**Photo 4:** Adjacent Future Lands of Cochrane Road Property (APN 728-36-012) – facing north.



**Photo 5:** Adjacent Future Target Phase II Property – facing west.



**Photo 6:** Residences (on Carmelo Ct.) south of Cochrane Road – facing south.

#### **4.1.1.2      *Surrounding Visual Character***

Due to the flat topography of the project area, views of the project site are limited to the site's immediate vicinity and the adjacent properties. The project site is surrounded by several greenhouses, residential and agricultural land to the north and by one- to two-story modern single-family detached residences and open space/park areas to the south and east. Vacant land, an unoccupied tent used for sports and recreation, and a parking lot (on the Phase II Target property) and commercial development (Target Shopping Center) are to the west of the site. The surrounding single-family residential developments (to the south and east) are comprised of wood-framed one- to two-story structures with driveways, attached garages, and trees on their properties. These modern houses have gable-styled concrete roofs and are made up of stucco and stone. These neighboring residences also have attached two to three-car garages and driveways that are accessed from City streets.

#### **4.1.1.3      *Scenic Views and Resources***

The City's scenic resources include hillside areas (e.g., El Toro Mountain), and gateways to the City. It is the City's goal to maintain open views of the hillsides, as well as preserving their important resources, and protect the visual integrity of scenic gateways. Gateways to the City of Morgan Hill include: Madrone area north of Cochrane on Monterey Road, the Cochrane Road and Monterey Road intersection, Monterey Road between Watsonville Road and East Middle Avenue, the Cochrane, Dunne and Tennant freeway interchanges, and the Caltrain station.

The project site is relatively flat and surrounded by development. Views of El Toro Mountain west of the site and Diablo foothills east of the site are obscured by existing, surrounding development. The project site is not adjacent to or visible from a City-designated gateway or a state-designated scenic highway.<sup>4</sup>

The trees on the project site include one native blue elderberry tree, one non-native almond tree, and two non-native avocado trees (refer to Section 4.1.2.3, *Scenic Resources*). The project area is mostly developed and no rock outcroppings are present on the site or in the project area. There are no trees on the site that are designated scenic resources. Additionally, there are no known historic buildings of significance on the project site or in the immediate vicinity of the site (refer to Section 3.5, *Cultural Resources*).

#### **4.1.1.3      *Applicable Plans, Policies, and Regulations***

##### **State Scenic Highway Program**

The State Scenic Highways Program was created by the California State Legislature in 1963 and is under the jurisdiction of the California Department of Transportation (Caltrans). The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The closest officially designated state scenic

<sup>4</sup> California Department of Transportation. California Scenic Highway Program. *Scenic Highway Routes*. Last Updated May 2014. Available at: < [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/scenic\\_hwy.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm)>. Accessed March 31, 2015.

highway is State Route (SR) 9 (approximately 18 miles northwest of the project site) and eligible state scenic highway<sup>5</sup> is SR 17 (approximately 18 miles northwest of the project site). Neither highway is visible from the project site.

### Morgan Hill General Plan

Various policies in the City's General Plan were adopted for the purpose of avoiding or mitigating impacts to visual resources resulting from planned development within the City. All development is subject to General Plan policies, including the following, which would reduce or avoid aesthetics impacts:

- *Built Environment Policy 12a* - Avoid monotony in the appearance of residential development.
- *Built Environment Policy 12e* - Minimize the use of sound walls.
- *Neighborhoods Policy 8c* - Encourage future residential development projects where local streets are safe, convenient and aesthetically pleasing; and where elementary schools and parks are centrally located to serve the immediate residential area.
- *Water Quality Policy 6h* – Preserve and protect mature, healthy trees whenever feasible, particularly native trees and other trees which are of significant size or of significant aesthetic value to immediate vicinity or to the community as a whole.

#### 4.1.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-4
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-5
3. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-4
4. Create a new source of substantial light or glare which will adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

<sup>5</sup> Eligible state scenic highways are highways (or segments of highways) that are not officially Caltrans-designated state scenic highways, but have the potential to become officially designated in the future.



#### 4.1.2.1 *Aesthetic Impacts*

The project proposes to subdivide two 20-acre parcels (APN 728-36-013 and -014) into 135 residential lots, allowing for the development of 135 one- to two-story single-family residences with two<sup>6</sup> to three-car garages and private driveways. The lot sizes would range from approximately 3,550 to 13,600 square feet. The size of the residences would range from approximately 2,080 to 3,930 square feet. The maximum building height of the residences would be 30 feet. An approximately 2.8-acre larger open space (which would include a barbecue/picnic area) and six smaller (0.06 to 1.2 acres) common open space areas are proposed for the site.

While the project would change the visual character of the site by allowing construction of 135 residential units, the proposed residences would be French, Spanish, American Farmhouse, Craftsmen styled models that would have facade materials with varying combinations of stucco, vinyl-framed windows, and concrete-tiled and shingle roofing with intersecting gables. The residences would also include varying combinations of brick, stone and horizontal lapped panel siding. The proposed residential development would fit in with the character of the existing residential neighborhoods and would not degrade the existing visual character of the site or its surroundings.

The final design and architectural elements of the proposed residential development at the project site would be reviewed by the City's Community Development Director or designated staff, and/or Planning Commission and City Council upon referral or appeal, for consistency with the design guidelines to ensure that these structures would not detract from the visual character and quality of the neighborhood. For these reasons, the proposed project is not expected to substantially degrade the existing visual character of the neighborhood. **(Less Than Significant Impact)**

#### 4.1.2.2 *Scenic Resources*

The project site is not designated as a scenic resource, nor are there designated scenic vistas in the vicinity of the site. The site is not located within a state scenic highway and is not located in the vicinity of a designated scenic corridor.<sup>7</sup> From the existing residences to the east of the project site, the proposed project's residences would modify the private views of El Toro Mountain to the west and would modify the views of Diablo Range to the east (of the project site) from the Target Phase II site (approved but not yet constructed). The proposed residences are not, however, anticipated to have an adverse effect on a scenic vista since the existing surrounding development obscures the views of these resources.

Trees can be considered scenic resources in suburban environments as they contribute to aesthetic interest and character. All four trees (two non-native avocado trees on APN 728-36-014 and one non-native almond tree, as well as one native elderberry tree on APN 728-36-013) would be removed during construction. The project proposes to plant new trees to replace the removed trees (with the approval of the City's Community Development Director). The planting of replacement trees in

<sup>6</sup> At least one of the models (homes) will have an option to build an office or an additional garage (one-car).

<sup>7</sup> California Department of Transportation. California Scenic Highway Program. Scenic Highway Routes. Available at: < [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/scenic\\_hwy.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm) >. Accessed January 21, 2015.



accordance with City policies would offset the aesthetic effects of tree removal. For these reasons, tree removal would not have a significant impact on scenic resources.

**(Less Than Significant Impact)**

#### **4.1.2.3 *Light and Glare***

Residential development at the project site would incrementally increase light and glare due to the new building surfaces, vehicles traveling to and from the development, and lighted buildings and streets. The light and glare created by the project's residential development would be consistent with the levels of light and glare currently emitted by the surrounding residential development, would be typical of a suburban area, and is not considered substantial. Implementation of the project would, therefore, not result in significant new sources of light or glare. **(Less Than Significant Impact)**

#### **4.1.3 Reasonably Foreseeable Impacts to Adjacent Parcels**

As described in Section 3.0, *Project Description*, the proposed project is designed with new streets that terminate at the eastern border of the project site, with the intent that the streets would eventually connect to roadways associated with development on the parcel to the east (APN 728-36-012, Future Lands of Cochrane Road), consistent with the Morgan Hill General Plan. Approval of the proposed project would commit future development on the adjacent parcel (APN 728-36-012) to a definite roadway system that connects to the roadway segment proposed by the project. The roadways on the Future Lands of Cochrane Road property (APN 728-36-012) at the location proposed may require the removal of trees on the property. However, the location of the proposed project's roadways would not necessitate the removal of trees on the adjacent parcel (APN 728-36-012). No aesthetic resources (including trees) are known to occur on the adjacent parcel (APN 728-36-012). If tree removal on the adjacent parcel is required, a tree survey would be completed for the adjacent property to evaluate the condition and quality of these existing trees prior to the removal.

No known aesthetic resources are located on the property (APN 728-036-012). The property would be evaluated for aesthetic and visual resources in accordance with CEQA (prior to development), the location of the proposed project's new streets is not anticipated to result in reasonably foreseeable significant impacts to aesthetic or visual resources.

The proposed location of the extension of Mission View Drive would not result in any reasonably foreseeable significant impacts to aesthetic or visual resources on adjacent parcels APN 728-39-022 and APN 728-38-005 to the north in that there are no visual resources in the path of the planned roadway. **(Less Than Significant Impact)**

#### **4.1.4 Conclusion**

The proposed residential development on the project site would not result in significant adverse visual or aesthetic impacts. **(Less Than Significant Impact)**

## 4.2 AGRICULTURAL AND FOREST RESOURCES

The following section is based in part on a Custom Soil Report that was generated using the Web Soil Survey (WSS) and the Land Evaluation and Site Assessment (LESA) model. The WSS provides soil data and information produced by the National Cooperative Soil Survey which is operated by the United States Department of Agriculture Natural Resources Conservation Service (NRCS). The LESA system is an approach (acknowledged by CEQA Statue 21095) to assess relative value of agricultural land resources. The Custom Soil Report and tables which show the results of the LESA modeling are included in Appendix A.

### 4.2.1 Setting

The Santa Clara County Important Farmland 2012 Map designates the eastern section (APN 728-36-013) of the site as *Grazing Land*. Grazing Land is defined as land on which the existing vegetation is suited for the grazing of cattle. The site was formerly used for cattle grazing. The site is mostly undeveloped with a small structure (formerly used as cattle shade shelter) on the southeast corner of the site. The site is not currently used for agricultural purposes.

The Santa Clara County Important Farmland 2012 Map designates 13 acres of the western section (APN 728-36-013) of the project site as *Prime Farmland*, three acres as *Farmland of Statewide Importance* and four acres of this section as *Grazing Land*. Prime Farmland is defined as land having ‘the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. *Farmland of Statewide Importance* is similar to *Prime Farmland* except for minor shortcomings such as soils with greater slopes or less ability to store soil moisture (than soils of Prime Farmland).

The project site is not the subject of a Williamson Act contract. The property immediately to the north (which consists of greenhouses) of the site is designated as *Unique Farmland*.<sup>8</sup> There is no forest land on or adjacent to the project site.

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<sup>8</sup> Unique Farmland consists of lesser quality soils used for the production of the state’s leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards vineyards.

## 4.2.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,6
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2,7
3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
4. Result in a loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

### 4.2.2.1 *Agricultural and Forest Impacts*

The proposed project would convert 13 acres of *Prime Farmland* and three acres of *Farmland of Statewide Importance* and 24 acres of *Grazing Land* (non-agricultural land) to a residential land use. The *Prime Farmland* on the project site was evaluated using the Land Evaluation and Site Assessment (LESA) system which is a point-based approach to rate the relative value of agricultural land resources. The LESA system is acknowledged by CEQA Statue 21095. The LESA model is based on two sets of factors including: 1) a Land Evaluation which measures the inherent soil qualities as they relate to agricultural suitability; and 2) a Site Assessment that measures social, economic, and geographical attributes that contribute to the overall value of agricultural land. For the purpose of determining the significance of a project's conversion of agricultural lands, the LESA instruction manual recommends the following:

<b>Table 4.2-1: LESA Significance Determination</b>	
<b>Total LESA Score</b>	<b>Significance Determination</b>
0 to 39 points	Not Significant
40 to 59 points	Significant only if Land Evaluation and Site Assessment subscores are each greater than or equal to 20 points
60 to 79 points	Significant unless either Land Evaluation or Site Assessment subscore is less than 20 points
80 to 100 points	Significant

Using the methodologies recommended by the LESA instruction manual, the overall LESA score for the 13 acres of Prime Farmland and three acres of *Farmland of Statewide Importance* for the project is 57.4 out of 100, with a score of approximately 38 out of 50 in the Land Evaluation category and 19.5 out of 50<sup>9</sup> in the Site Assessment category (which accounts for surrounding agricultural lands and protected resource lands<sup>10</sup> within the project site's zone of influence).<sup>11</sup> The project site's zone of influence includes parcels within or partially within one-quarter mile of the project site. Figure 4.2-1 shows the surrounding agricultural lands within the project site's zone of influence. Tables showing the results of the LESA modeling are included in Appendix A. Based on Table 4.2-1, the designated farmland does not score high enough in the Site Assessment Category for the conversion of the site to residential land uses to be considered significant.

The project site is not zoned by the City for agricultural purposes, nor is the site comprised of forest land or timberland resources. The site is not the subject of a Williamson Act contract.

**(Less Than Significant Impact)**

<sup>9</sup> Water resources availability was given a maximum score of 100 points. As a result, the Site Assessment score is very close to the threshold of 20 but is not be equal to or greater than 20.

<sup>10</sup> Protected resource lands are those lands with long term use restrictions that are compatible with or supportive of agricultural uses of land, including: 1) Williamson Act contracted lands, 2) Publicly owned lands maintained as park, forest, or watershed resources, and 3) Lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such land to urban or industrial uses. Protected resource lands considered within the site's zone of influence are listed in Appendix A of this Initial Study.

<sup>11</sup> If the entire 40-acres of the project site is evaluated using the LESA model, the sites' soils have a total LESA score of 57.4. If only the designated Prime Farmland and Farmland of Statewide Importance soils are evaluated, the total LESA score is 59.80; however, the impact of converting the project sites to residential uses is considered less than significant since the subcategory Site Assessment Category score is less than 20 (19.5) in both cases (see Appendix A – LESA Modeling tables).





SURROUNDING AGRICULTURAL LAND USES

FIGURE 4.2-1



#### **4.2.3            Reasonably Foreseeable Impacts to Adjacent Parcels**

The Mission View Drive extension to Vista De Lomas would partially extend onto APN 728-39-022), which is designated as *Unique Farmland*. This *Unique Farmland* (APN 728-39-022), however, is designated in the General Plan for urban uses, and also depicted in the City's Circulation Element for the extension of Mission View Drive to Vista De Lomas. The potential loss of farmland (due to the future Mission View Drive extension to Vista De Lomas) would be independent of the proposed project, and the future loss of this farmland would not be influenced by the proposed location of the extension of Mission View Drive on the subject project site, i.e. the loss of farmland from the future roadway extension would occur regardless where the roadway is now planned on the subject project site.

The Future Lands of Cochrane Road property (APN 728-036-012) is designated as *Grazing Land* (and is not designated farmland); therefore, the proposed project site roadways that would eventually connect to roadways on the Future Lands of Cochrane Road property, would not result in the loss of farmland on the property.

#### **4.2.4            Conclusion**

The proposed project would not result in a significant impact to agricultural or forest resources.  
**(Less Than Significant Impact)**

### 4.3 AIR QUALITY

The following discussion is based in part on a Construction Risk and Greenhouse Gas Emissions Assessment prepared by *Illingworth & Rodkin, Inc.*, in February 2015, which is included as Appendix B of this Initial Study.

#### 4.3.1 Setting

The primary mobile source of air pollutant emissions is vehicular traffic along U.S. Highway 101 (approximately 1,500 feet west of the project site) and Cochrane Road (immediately to the south and less than 10 feet from the project site). The nearest Bay Area Air Quality Management District (BAAQMD)-permitted stationary air pollutant sources are more than 1,700 feet from the site, including a juvenile detention center (19050 Malaguerra Avenue) to the east and a circuit board manufacturing company (925 Lightpost Way) and a generator (1061 Cochrane Road) to the west of the site.

##### 4.3.1.1 *Local and Regional Air Quality*

#### **Background**

Air quality and the amount of a given pollutant in the atmosphere are determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determination of transport and dilution are wind, atmospheric stability, terrain, and for photochemical pollutants, sunlight.

The project site is located in the southern portion of Santa Clara County, which is in the San Francisco Bay Area Air Basin. The BAAQMD is the regional agency tasked with managing air quality in the region. The California Air Resources Board (CARB) oversees regional air district activities and regulates air quality at the State level. The BAAQMD recently published CEQA Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.<sup>12</sup>

#### **Air Quality Standards**

Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM<sub>10</sub>) and fine particulate matter (PM<sub>2.5</sub>).

#### Ozone

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the BAAQMD's attempt to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels

<sup>12</sup> Bay Area Air Quality Management District. *BAAQMD CEQA Air Quality Guidelines*. May 2011.

aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort.

### Particulate Matter

Particulate matter is another problematic air pollutant in the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter. These are particles that have a diameter of 10 micrometers or less (PM<sub>10</sub>) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM<sub>2.5</sub>). Elevated concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and reduce lung function growth in children.

### **Toxic Air Contaminants**

Toxic air contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above (NO<sub>x</sub>, ROG, PM<sub>10</sub>, and PM<sub>2.5</sub>). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust (or diesel particulate matter - DPM) is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, were previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

The CARB adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, the CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.<sup>13</sup> The regulation requires affected vehicles to meet specific performance requirements between 2011 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

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<sup>13</sup> California Air Resources Board. *On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation*. Available at: <<http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>>. Accessed January 15, 2015.

### 4.3.1.3 Sensitive Receptors

BAAQMD defines sensitive receptors as population groups that are particularly sensitive to the effects of air pollutants (i.e., children, the elderly, and people with illnesses). Places where sensitive receptors are likely to be located include schools, hospitals, and residential areas. For cancer risk assessments, children are the most sensitive receptors, as they are more susceptible to cancer causing TACs. Residential developments are assumed to include infants and small children. Sensitive receptors in the immediate project area include residences surrounding the site in all directions. The nearest sensitive receptors are single family residences on the southern side of Cochrane Road, approximately 130 feet south of the site, and single-family residences to the north (approximately 150 feet from the site) and to the east (approximately 300 feet from the site, on the other side of APN 728-36-012).

### BAAQMD Screening Criteria for TAC Sources Near Sensitive Receptors

#### Operational Screening Criteria

The BAAQMD recommends that projects be evaluated for operational community health risk when they are located within 1,000 feet of stationary permitted sources (i.e., power plants, gas stations, backup generators, etc.) of TACs, and/or within 1,000 feet of freeways and high traffic volume roadways (10,000 average annual daily trips [AADT] or more).

The project site is located within 1,000 feet of Cochrane Road (a four to five lane arterial roadway which is a north-south directional roadway). Based on the Morgan Hill General Circulation Element Update EIR, Cochrane Road in the project area (Cochrane Road, between U.S. Highway 101 and Depaul Drive) has an AADT of approximately 13,000. BAAQMD has screening tables which show a site's estimated PM<sub>2.5</sub> concentrations and lifetime cancer risk, based on the distance of the site from the edge of a roadway (with 10,000 AADT or more). The roadway volumes associated with PM<sub>2.5</sub> concentrations and cancer risks at a site are provided in the screening tables in increments of 10,000 AADT, ranging from 10,000 to 100,000 AADT.

The southern border of the project site is less than 10 feet from Cochrane Road. In accordance with BAAQMD's screening tables for project sites in Santa Clara County with PM<sub>2.5</sub> concentrations and cancer risks generated from surface streets (north-south directional roadways with 20,000 AADT) located 10 feet from the edge of the roadway(s), the PM<sub>2.5</sub> concentrations at the project site would be approximately 0.2 µg/m<sup>3</sup> and the lifetime cancer risk would be four in one million. The PM<sub>2.5</sub> concentrations and cancer risks generated from mobile sources on Cochrane Road would be below BAAQMD's thresholds of significance, which is 0.3 µg/m<sup>3</sup> for PM<sub>2.5</sub> concentrations and 10 in one million for lifetime cancer risks.<sup>14</sup> The project site is not within 1,000 feet of any other high volume roadways.

<sup>14</sup> BAAQMD. *Santa Clara County PM<sub>2.5</sub> Concentrations and Cancer Risks Generated from Surface Streets*.

Available at:

<<http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/County%20Surface%20Street%20Screening%20Tables%20Dec%202011.ashx?la=en>>. Accessed June 8, 2015.

Additionally, there are no BAAQMD-permitted stationary sources of TAC within 1,000 feet. Since the mobile and stationary-permitted sources of TACs do not exceed the BAAQMD thresholds, the project does not necessitate an operational community risk analysis.

### Construction Screening Criteria

BAAQMD published screening tables for identifying potentially significant construction health risks from exposure to TACs.<sup>15</sup> These tables indicate potentially significant health risks within 500 feet of projects constructing 100 or more residential units but less than 250 units. BAAQMD indicates that these screening levels are based on many worst-case and conservative assumptions, which likely result in an over prediction of impacts. Since the nearest sensitive receptors (residences) are single family homes on the southern side of Cochrane Road, approximately 130 feet south of the site, a Construction TAC Health Risk Assessment was completed for the project.

#### **4.3.1.3      *Odors***

Common sources of odors include wastewater treatment plants, transfer stations, coffee roasters, painting/coating operations, etc. Table 3-3 in the BAAQMD CEQA Air Quality Guidelines has a list of common odor sources (i.e., wastewater treatment plant, food processing facility, chemical manufacturing) with associated screening distances. Projects that place a new sensitive receptor farther than the applicable screening distance from an existing odor source would not likely result in a significant odor impact.

The City of Morgan Hill is surrounded by rural, unincorporated lands which allow for agricultural operations that can produce a variety of odors. Some odors from agricultural operations may exist in the project area; however, these odors are sporadic throughout the year.

It is recommended by BAAQMD that odor parameters and complaint history be considered when determining a significant impact. The Air Quality Guidelines require that locations of all odor sources be identified within a project area. An odor is considered significant if there are five confirmed complaints per year averaged over three years.

#### **4.3.1.4      *Applicable Plans, Policies and Regulations***

The Federal Clean Air Act governs air quality in the United States. In addition to being subject to Federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. At the Federal level, the USEPA administers the Federal Clean Air Act. The California Clean Air Act is administered by CARB at the State level and by the Air Quality Management Districts at the regional and local levels. BAAQMD regulates air quality at the regional level in the Bay Area.

<sup>15</sup> BAAQMD. *Screening Tables for Air Toxics Evaluation During Construction*. May 2011.



### **United States Environmental Protection Agency**

The USEPA is responsible for enforcing the Federal Clean Air Act and establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 Clean Air Act and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the Federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in States other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

### **California Air Resources Board**

In California, CARB which is part of the California Environmental Protection Agency (CalEPA), is responsible for enforcing the State requirements of the Federal Clean Air Act, administering the California Clean Air Act, and establishing the California Ambient Air Quality Standards (CAAQS). The California Clean Air Act requires all air districts in the State to achieve and maintain CAAQS. CARB regulates mobile air pollution sources, such as motor vehicles. The agency sets emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB has established passenger vehicle fuel specifications and oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level. CARB researches the effects of air pollution on the public and develops innovative approaches to reducing air pollutant emissions.

### **Bay Area Air Quality Management District**

BAAQMD is the regional agency tasked with managing air quality in the region. BAAQMD is primarily responsible for assuring that the Federal and State ambient air quality standards are maintained in the San Francisco Bay Area. Air quality standards are set by the Federal government (the 1970 Clean Air Act and its subsequent amendments) and the State (California Clean Air Act of 1988 and its subsequent amendments). Regional air quality management districts such as BAAQMD prepare air quality plans specifying how State standards would be met. BAAQMD's most recently adopted Clean Air Plan is the 2010 Clean Air Plan (2010 CAP).

The 2010 CAP provides an updated comprehensive plan to improve Bay Area air quality and protect public health, taking into account future growth projections to 2035. It contains district-wide control measures to reduce ozone precursor emissions (i.e., reactive organic gases [ROG] and nitrogen oxides [NO<sub>x</sub>]), particulate matter, and greenhouse gas emissions.

**4.3.2 Environmental Checklist and Discussion of Impacts**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,8
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,8,9
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,9
4. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,8,9
5. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,8

**4.3.2.1 Thresholds of Significance**

The BAAQMD is the regional agency tasked with managing air quality in the region. The BAAQMD provides guidance in assessing impacts to lead agencies in the Bay Area. In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA, and were posted on BAAQMD's website and included in the Air District's updated CEQA Guidelines (updated May 2011).

The determination of whether a project may have a significant effect on the environment is made by the lead agency, based upon substantial evidence. The City of Morgan Hill considers the BAAQMD thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and PM<sub>2.5</sub>. Scientific information supporting the thresholds was documented in BAAQMD's proposed thresholds of significance analysis<sup>16</sup>. The City of Morgan Hill considers the thresholds as being supported by substantial evidence. Accordingly, the analysis in this Initial Study uses the thresholds and methodologies from BAAQMD's May 2011 CEQA Air Quality Guidelines to determine the potential impacts of the proposed and evaluated projects in the existing environment. Table 4.3-1 below shows the current BAAQMD thresholds for air pollutants:

<sup>16</sup> BAAQMD. California Environmental Quality Act Air Quality Guidelines. May 2011.

Table 4.3-1: Thresholds of Significance Used in Air Quality Analyses			
Pollutant	Construction	Operation-Related	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Maximum Annual Emissions (tons/year)
ROG, NO <sub>x</sub>	54	54	10
PM <sub>10</sub>	82 (exhaust)	82	15
PM <sub>2.5</sub>	54 (exhaust)	54	10
Fugitive Dust (PM <sub>10</sub> /PM <sub>2.5</sub> )	Best Management Practices	None	None
Local Carbon Monoxide (CO)	None	9.0 parts per million [ppm] (8-hour average); 20.0 ppm (1-hour average)	
Risk and Hazards for New Sources and Receptors (Project)	Same as Operational Threshold	<ul style="list-style-type: none"><li>Increased cancer risk of &gt;10.0 in one million</li><li>Increased non-cancer risk of &gt; 1.0 Hazard Index (chronic or acute)</li><li>Ambient PM<sub>2.5</sub> increase: &gt; 0.3 μ/m<sup>3</sup> [Zone of influence: 1,000-foot radius from property line of source or receptor]</li></ul>	
Risk and Hazards for New Sources and Receptors (Cumulative)	Same as Operational Threshold	<ul style="list-style-type: none"><li>Increased cancer risk of &gt;100 in one million</li><li>Increased non-cancer risk of &gt; 10.0 Hazard Index (chronic or acute)</li><li>Ambient PM<sub>2.5</sub> increase: &gt; 0.8 μ/m<sup>3</sup> [Zone of influence: 1,000-foot radius from property line of source or receptor]</li></ul>	
Odors		Five confirmed complaints per year averaged over three years	
Sources: BAAQMD Thresholds Options and Justification Report (2009) and BAAQMD CEQA Air Quality Guidelines (dated May 2011).			

#### 4.3.2.2 Consistency with Clean Air Plan

The City of Morgan Hill's General Plan land use assumptions were considered in the 2010 CAP planning efforts. The proposed project would not conflict with the latest Clean Air planning efforts since; (1) the project's operational emissions would be well below the BAAQMD thresholds of significance for air pollutants as discussed below in Section 4.3.2.3; (2) development of the project site would be consistent with the City's General Plan land use assumption for the site; (3) development would occur near employment centers; and (4) development would be in proximity to existing transit with regional connections. **(Less Than Significant Impact)**

#### 4.3.2.3 *Impacts to Non-attainment Criteria Pollutant Levels*

The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter (PM<sub>2.5</sub>) under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM<sub>10</sub>) under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM<sub>10</sub>, the BAAQMD has established thresholds of significance for air pollutants. These thresholds are for ozone precursor pollutants (ROG and NO<sub>x</sub>), PM<sub>10</sub> and PM<sub>2.5</sub>, and apply to both construction and operation period impacts.

#### **Operational Emissions**

As previously shown in Table 4.3-1, a project that generates more than 10 tons per year or 54 pounds per day of ROG, NO<sub>x</sub>, or PM<sub>2.5</sub>, or more than 15 tons per year or 82 pounds per day of PM<sub>10</sub> is considered to have a significant operational and/or construction-related air quality impact, according to the BAAQMD thresholds of significance (May 2011). To aid in determining the point at which a project exceeds these thresholds, BAAQMD developed a screening table that indicates the size at which a project could be potentially significant.

The project would construct 121 detached and 14 attached single-family residences. Table 3-1, *Criteria Air Pollutants and Precursors and GHG Level Sizes* in the BAAQMD CEQA Air Quality Guidelines shows that the screening level for operational emissions related to a single-family detached residential development is 325 dwelling units (at which point NO<sub>x</sub> may exceed the 10 tons per year or 54 pounds per day threshold). The project, which is substantially smaller than the screening levels established in the BAAQMD CEQA guidelines, would not result in significant long-term air quality impacts or result in a cumulatively considerable net increase of criteria pollutants for which the region is classified as non-attainment.

#### Air Quality Violations

As discussed above, criteria pollutant emissions under the project's operation would be less than the significance thresholds adopted by BAAQMD. The project would, therefore, not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from project-generated traffic would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Intersection volumes under project conditions are, however, well below the BAAQMD carbon monoxide screening level. Based on the BAAQMD CEQA Guidelines, project carbon monoxide impacts are less than significant if project traffic projections indicate traffic levels would not increase at any affected intersection to more than 44,000 vehicles per hour. Existing intersection peak-hour vehicle volumes in the project area are well below 44,000 vehicles per hour. Intersection volumes in the project area with the addition of project-generated traffic (projected to only generate approximately 101 AM peak hour and 135 PM daily peak hour trips – refer to Section 4.16, *Transportation*) would, therefore, be well below 44,000 vehicles per hour. **(Less Than Significant Impact)**

## Construction Emissions

The BAAQMD *CEQA Air Quality Guidelines* (May 2011) identify the size of construction projects that could result in significant criteria air pollutant emissions, which includes single-family residences exceeding 114 units residences (at which point ROG could exceed the 54 pounds per day threshold). Based on BAAQMD's CalEEMod modeling included in the Construction Risk and Greenhouse Gas Emissions Assessment completed for this Initial Study (Appendix B), the construction for the project would emit approximately 2.16 tons per year, which is equivalent to 12 pounds per day. Since the ROG emissions from construction would be substantially smaller than the 54 pound per day threshold established in the BAAQMD CEQA guidelines, the project would not result in result in a cumulatively considerable net increase of criteria pollutants (from construction emissions) for which the region is classified as non-attainment. **(Less Than Significant Impact)**

### 4.3.2.4 *Impacts to Sensitive Receptors*

Residential development at the project site (proposed for the construction of 135 single-family residential units) is not expected to generate any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels. Construction activities on the project site would generate dust and equipment exhaust on a temporary basis.

## Construction Activity

The community risk assessment of the project construction activities evaluated the potential health effects on sensitive receptors at nearby off-site residences and future on-site residents from construction emissions of diesel particulate matter (DPM) and PM<sub>2.5</sub>. Construction activities would occur starting September 2015. Approximately 41 residences total would be constructed for years 2015 to 2016 and 30 residences for years 2016 to 2017. The remaining residences would be constructed in 2018 and subsequent years; construction of the remaining residences would be allocated based upon the City's RDCS process. For the purposes of this Initial Study, 30 residences are assumed to be constructed in 2018 and 34 residences would be constructed in 2019. Grading and excavation would have an approximate one week duration at each site; all grading and excavation would be completed within a three month period. Given the phasing of construction on the project site, proposed residents of the project would likely be on-site during the construction of the remaining residences.

### Construction Dust Emissions

Construction activity is anticipated to include grading, building construction, paving and application of architectural coatings. During grading and construction activities, dust would be generated. Most of the dust would result during grading activities. The amount of dust generated will be highly variable and is dependent on the size of the area disturbed at any given time, amount of activity, soil conditions and meteorological conditions. Typical winds during late spring through summer are from the north. Nearby sensitive land uses include residences located to the north, south and east, and future residences proposed to occur on-site during construction. These residences could be adversely affected by dust generated during construction activities.



The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions.

The BAAQMD has identified feasible construction dust control measures (best management practices). These measures (listed under SC AIR-1) are included in the BAAQMD CEQA Air Quality Guidelines and the City's Standard Conditions of Approval. Implementation of SC AIR-1 measures would reduce the exposure of sensitive receptors to dust generated during construction to a less than significant level.

**Standard Condition (SC AIR-1): Site Development, Management Plan** - A management plan detailing strategies for control of noise, dust and vibration, and storage of hazardous materials during construction of the project shall be on all site development and grading plans. The intent of this condition is to minimize construction related disturbance of residents of the adjacent properties (pursuant to the City's Municipal Code 18.48.005). The plan must include the following "Basic Construction Mitigation Measures" based on the BAAQMD CEQA Air Quality Guidelines:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

#### Construction Diesel Exhaust/TAC and PM<sub>2.5</sub> Emissions

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known toxic air contaminant (TAC), and can generate PM<sub>2.5</sub> emissions. Construction of the project would result in the generation of TACs, including diesel PM<sub>2.5</sub>, from trucks and off-road equipment exhaust emissions. The project site is proposed to have residents on-site during construction. The nearest off-site residences would be approximately 130 feet south of the site.

The BAAQMD CEQA Guidelines consider exposure to annual  $\text{PM}_{2.5}$  concentrations that exceed  $0.3 \mu\text{g}/\text{m}^3$  from the operation of a single source to be significant and an annual  $\text{PM}_{2.5}$  concentration that exceeds  $0.8 \mu\text{g}/\text{m}^3$  from aggregate sources to be significant (refer to Table 4.3-1). The health risk assessment of the project construction activities evaluated potential health effects of sensitive receptors at on-site and nearby residences from construction emissions of DPM.

Dispersion modeling was completed to predict the off-site concentrations resulting from project construction, so that lifetime cancer risks and chronic hazards could be predicted. The maximum-modeled DPM concentration occurred at the sensitive receptors which were located immediately south of Cochrane Road and at on-site sensitive receptors that were located at the southwest corner of the project site.

Results of this assessment indicate that for existing off-site residential receptors, the maximum residential child increased cancer risk would be 6.2 in one million and the maximum residential adult increased cancer risk would be 0.5 in one million. For on-site residential receptors, the maximum residential child increased cancer risk will be 6.9 in one million and the maximum residential adult increased cancer risk would be 0.4 in one million. The maximum increased cancer risks for both off-site and on-site residences (sensitive receptors) are below the BAAQMD's threshold of 10 in one million excess cancer cases per million used to judge the significance of impacts resulting from cancer risks. The modeled maximum annual  $\text{PM}_{2.5}$  concentrations for off-site and on-site residential receptors were  $0.04 \mu\text{g}/\text{m}^3$  and  $0.05 \mu\text{g}/\text{m}^3$ , respectively. These concentrations are below the BAAQMD threshold of  $0.3 \mu\text{g}/\text{m}^3$  used to judge the significance of impacts for  $\text{PM}_{2.5}$ .

**(Less Than Significant Impact)**

#### **4.3.2.5      *Objectionable Odors***

The proposed development (135 single-family residences and open space area) is not expected to generate odors. Operation of construction equipment at the project site could create objectionable odors that may be perceptible at nearby uses. Due to the localized and temporary nature of construction-related odors, the project (during construction) is not expected to generate odors that would affect a substantial number of people.<sup>17</sup>

An odor source is considered significant by BAAQMD when it has five or more confirmed<sup>18</sup> complaints associated with the odor per year, averaged over three years. There have been four odor complaints filed with BAAQMD for the City of Morgan Hill over the past three years,<sup>19</sup> which were complaints from the following sources: 1) an ammonia odor complaint from a mushroom farm (location not disclosed) in January, 2013, 2) a garlic odor from George Chiala Farms located at 15500 Hill Road, 3.5 miles south of the project site, in March 2014, 3) an odor from the South Valley Mushroom Farm located at 1170 Diana Avenue, 1.6 miles south of the site in March 2015, and 4) a garlic odor from George Chiala Farms in April 2015.<sup>20</sup>

<sup>17</sup> BAAQMD does not have a threshold of significance for construction-related odor impacts.

<sup>18</sup> A confirmed odor complaint is an odor source that has been confirmed by a BAAQMD field inspector.

<sup>19</sup> Odor complaints for the City were compiled for the following duration: January 1, 2012 through April 14, 2015.

<sup>20</sup> Based upon a BAAQMD public records search for odor complaints completed for January 1, 2012 through April 14, 2015 in the City of Morgan Hill

The maximum number of odor complaints for a reported odor source in the City of Morgan Hill over the past three years was two unconfirmed odor complaints at the George Chiala Farms. The George Chiala Farms had one complaint in 2014 and one in 2015 (through April 14, 2015). None of the odor complaints in the City were confirmed nor were there any odor sources with an average of five or more complaints per year over the past three years.

Agricultural uses in the area may generate odors in the project area. These odors, however, are sporadic, and are not anticipated to generate odors that would cause odor complaints from new residents. **(Less Than Significant Impact)**

#### **4.3.3            Reasonably Foreseeable Potential Impacts to Adjacent Parcels**

The proposed project is designed so that when the property to the east (APN 728-36-012) is developed, the proposed project's new streets would be extended and could connect to the future development (APN 728-36-012). The proposed extension of Mission View drive would extend onto the adjacent parcels to the north (APN 728-39-022 and 728-38-005). The new extended streets would remain small neighborhood streets and would not likely carry over 10,000 ADT (BAAQMD's screening threshold for mobile TAC sources). Based on BAAQMD's screening methodology for mobile TAC sources, sensitive receptors would not be significantly impacted from chronic exposure to TACs or excessive lifetime cancer risks. With the implementation SC AIR-1 (above), construction of the proposed project's streets would not result in reasonably foreseeable impacts to nearby sensitive receptors. The location of the proposed project's new streets adjacent to sensitive receptors as currently proposed would not result in any reasonably foreseeable significant air quality impacts.

#### **4.3.4            Conclusion**

Development on the project site would not result in significant operational regional air quality impacts. With the implementation of the SC AIR-1 listed above, the project would have a less than significant construction air quality impact on sensitive receptors. **(Less Than Significant Impact)**

## 4.4 BIOLOGICAL RESOURCES

The following discussion is based in part on a Biological Constraints Letter for the western parcel (APN 728-36-014) completed by *Live Oak Associates, Inc.* in June 2013, and a Preliminary Biological Resource Assessment completed by *Zander Associates* in October 2014 and a Tree Memo completed by *Zander Associates* in April 2015 for the eastern parcel (APN 728-36-013). These reports are included in Appendix C of this Initial Study.

### 4.4.1 Setting

The project site is approximately 40-acres and has an elevation that ranges from 385 to 400 above mean sea level (amsl). There are no hydrologic features (i.e., jurisdictional waters) such as wetlands on or adjacent to the project site.

The western parcel (APN 728-36-014) is undeveloped and supports non-native grassland in the southern portion (formerly used for cattle grazing) and is comprised of a former vineyard (approximately 16 acres) with former agricultural row crops. The eastern parcel (APN 728-36-013) is comprised of non-native grasses and a small wooden shade shelter on the southwest corner of the parcel.

The project site is bordered by approximately 20 acres of vacant land and a single-family residence to the east (Future Lands of Cochrane Road residential development, APN 728-36-012), mostly undeveloped land with an unoccupied tent currently used for sports and recreation and a parking lot (which would be a part of the future second phase of the Target Shopping Center project) to the west, Cochrane Road, an outdoor open space area and single-family residences to the south, and several greenhouses, residences and agricultural uses to the north.

#### 4.4.1.1 *On-site Habitats*

##### **Eastern Parcel (APN 728-36-013)**

#### Vegetation

The parcel's vegetation is mainly comprised of grazed, non-native annual grassland (e.g., foxtail barley, ripgut brome, and wild oats) with a stand of coyote brush that occupies the northern section of the site. Most of the vegetation at ground level had been heavily grazed, trampled or desiccated from summer heat (based on a biological survey/site visit in August 2013). Additionally, there are two trees growing along the western property boundary: a large blue elderberry and an almond tree.

#### Wildlife

During the August 2013 biological survey for the eastern parcel, fence lizards, jack rabbits and California ground squirrels were observed. During the June 2013 survey, a large colony of California ground squirrels (estimated in the hundreds) was observed on the parcel. Common rodents, reptiles and other small animals found in fields and rangeland such as the western harvest mouse, Botta pocket gopher, California vole, western fence lizard, southern alligator lizard, gopher

snake and black-tailed jack rabbit could occur on the parcel (due to the site's suitable habitat for these species). Many of these animals, can serve as prey for species such as the coyote, bobcat and red-tailed hawk.

### **Western Parcel (APN 728-36-014)**

#### Vegetation

The western parcel consists of two habitat types: non-native annual grassland and a vineyard. The non-native annual grassland occurs in the southern portion (approximately three acres) of the parcel (south of the on-site vineyard), formerly used for cattle grazing. A small ruderal area (approximately one acre) also occurs on-site to the north of the vineyard.

The former vineyard (approximately 16 acres) occurs over the majority of the western parcel. The vineyard is comprised of agricultural (former) row crops. Based on the June 2013 biological survey, the understory of the former crops have been disked for maintenance and weed suppression. There were two avocado trees on the site: one avocado tree was observed in the center of the vineyard and the other avocado tree is along the western boundary of the vineyard.

#### Wildlife

During the June 2013 biological survey for the western parcel, western fence lizards were observed on the parcel. Other reptiles that the site provides suitable habitat for include the southern alligator lizard and gopher snake.

Several species of birds were observed on the western parcel which included killdeer, mourning dove, American crow, northern mockingbird, house finch, house sparrow, western scrub jay, Brewer's blackbird, and barn swallow. In addition, several raptor (bird of prey) species were foraging over the site including the red-tailed hawk, American kestrel, and turkey vulture.

During the biological survey completed for the western parcel, numerous California ground squirrel burrows and some ground squirrels were observed within the non-native grasslands at the southern end of the western parcel. Ground squirrel burrows were also observed at the edges of the vineyard areas. Evidence of both Botta's pocket gophers and California voles in the form of a few small burrows and digs were present throughout the site. The tracks and scat of several other mammal species such as Virginia opossum, striped skunk, domestic cat, domestic dog, coyote, and bobcat were observed on the parcel.

#### **4.4.1.2 Special-Status Species**

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. Although California Department of Fish and Wildlife (CDFW) Species of Special Concern generally have no legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the



United States are protected under the Migratory Bird Treaty Act (MBTA). Plant species on the California Native Plant Society (CNPS) Lists 1 and 2 are also considered special-status species and must be considered under CEQA. A list of special-status species known to occur in the region (i.e., Santa Clara, Santa Cruz, or Monterey Counties) is included in the Biological Assessment and Constraints Letter (Appendix C of this Initial Study). A summary of these listed species expected to occur at the project site is described below.

### **Special-Status Plant Species**

Based on focused review of literature and data sources (e.g., CDFW's California Natural Diversity Database (CNDDDB) and Santa Clara Valley Habitat Plan), a list of special-status plant species known to occur in the project area was developed.

Most of the listed special-status plant species and natural communities (e.g., Contra Costa goldfields, big-scale balsamroot, cream sacs, and fragrant fritillary) are associated with habitats that do not occur on the site (e.g. alkaline, saline, rocky or serpentine soils; oak woodlands; evergreen forests; riparian forests; chaparral/scrub habitats). Therefore, these listed plant species are expected to be absent from the site due to unsuitable habitat.

The non-native grasslands on the project site could provide marginal habitat for three special-status plant species (the bent-flowered fiddleneck, round-leaved filaree, and fragrant fritillary), however, these species are unlikely to occur due to degradation by cattle disturbance and the prevalence of non-native grasses and forbs on the site. These special-status plant species were not identified during the biological field surveys for either parcel. For these reasons, no rare, threatened, endangered or otherwise special-status plant species are likely to occur on the project site.

### **Special-Status Wildlife Species**

Most of the listed special-status wildlife species known to occur in the region (e.g., Bay checkerspot butterfly, California tiger salamander, California red-legged frog, western pond turtle, least Bell's vireo, and tricolored blackbird) are not expected to occur on the project site due to lack of suitable habitat types. The history of grazing, absence of vegetative cover, lack of continuity with adjacent habitats, and proximity to urban development limit wildlife opportunities on the project site.

Based on the special-status wildlife species list in the June 2013 biological constraints analysis, it is possible for the white-tailed kite, burrowing owl, pallid bat and American badger to periodically occur on the project site, since the site is partially comprised of suitable habitat (e.g., open grasslands) for these species (however, these species were not observed on the site during the biological surveys).

Due to the presence of ground squirrels observed on the eastern parcel (which indicates presence of ground squirrel burrows) and ground squirrel burrows on the western parcel, and the previous occurrence of burrowing owls documented on the adjacent property (future Target Phase II property) in 2000, immediately to the west of the site, burrowing owls could occur on the project site. The open non-native grassland areas of the site could serve as suitable foraging, roosting and nesting habitat for burrowing owls, foraging and breeding habitat for the white-tailed kite, and foraging

habitat for the pallid bat and American badger. Three listed species (black swift, golden eagle and Vaux's swift) are unlikely to occur on the site but may forage on (or over) the site or pass over the site intermittently. The remaining special-status wildlife species listed are considered absent from the site due to the lack of suitable habitat.

#### **4.4.1.3      *City of Morgan Hill Tree Removal Controls***

The City defines a tree as “any live woody plant rising above the ground with a single stem or trunk of a circumference of 40 inches or more for non-indigenous species, and 18 inches or more for indigenous species (e.g., oaks, California bays, madrones, sycamore and alder) measured at four (4) and one-half feet vertically above the ground or immediately below the lowest branch, whichever is lower.”

Prior to the removal of any tree protected under the City of Morgan Hill Tree Removal Controls, a tree removal permit would be required from the Community Development Director. The tree removal permit includes a description of the tree replacement program and identifies any conditions imposed by the City. Based on the City's Municipal Code Section 12.32.020, non-native trees in residential zones and orchards (including individual fruit trees) are exempt from the City's definition of a tree and are not subject to the City's tree replacement program.

There are two non-native avocado trees on the western parcel of the project site. The eastern parcel has one non-native almond tree (with a 22-inch circumference) and one native elderberry tree (with a 54-inch trunk circumference). The 54-inch native elderberry tree would be replaced in accordance with the City's Municipal Code Sections 12.32.020 and 12.28 (Tree Planting Plan) with the approval of the City's Community Development Director. The remaining three orchard trees on the site are exempt from the City's definition of a tree and would not require a tree removal permit.

#### **4.4.1.4      *Applicable Plans, Policies and Regulations***

##### **Regulated Habitats**

##### United States Army Corps of Engineers Jurisdiction

Areas meeting the regulatory definition of “Waters of the United States” (jurisdictional waters) are subject to the jurisdiction of the US Army Corps of Engineers (USACE). The USACE, under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899), has jurisdiction over “Waters of the US.” These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as Waters of the US., tributaries of waters otherwise defined as Waters of the US, the territorial seas, and wetlands adjacent to Waters of the US.

Areas not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions.

Natural drainage channels and adjacent wetlands may be considered jurisdictional waters subject to the jurisdiction of the USACE. The nearest waterway (that qualifies as a jurisdictional wetland) to the site is Coyote Creek (approximately one-quarter mile north of the site). There are no jurisdictional waters on or adjacent to the project site.<sup>21</sup>

#### California Department of Fish and Wildlife Jurisdiction

Activities that result in the diversion or obstruction of the natural flow of a stream, or which substantially change its bed, channel or bank, or which utilize any materials (including vegetation) from the streambed requires that the project proponent enter into a Streambed Alteration Agreement with the CDFW, under Sections 1601-1603 of the State Fish and Game Code. The CDFW potentially extends the definition of stream to include “intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams (USGS), and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.” There are no high-priority habitats on the project site.

### **Special-Status Plant and Wildlife Species**

#### Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects listed wildlife species from harm or “take,” which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. A take can also include habitat modification or degradation that directly results in death or injury to members of a listed wildlife species. An activity can be defined as “take” even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under FESA if they occur on Federal lands or if the project requires a Federal action, such as a Section 404 fill permit.

#### California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, CDFG has jurisdiction over State-listed species (California Department of Fish and Game Code 2070). Additionally, the CDFW maintains lists of “species of special concern” that are defined as species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats.

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<sup>21</sup> Live Oak Associates, Inc. *Biological Constraints Letter for the Roland Property project site, City of Morgan Hill, Santa Clara County, California (PN 1755-01)*. June 2013. Zander Associates. *Preliminary Biological Resource Assessment, Barbara Property, 1365 Cochrane Road, Morgan Hill, California*. October 2014.

### Federal Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act (16 U.S.C. Sec. 703) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

### California Department of Fish and Game Code Section 3503.5

Birds of prey are protected under Fish and Game Code Section 3503.5, which States that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.”

### The California Native Plant Society

The California Native Plant Society (CNPS), a non-governmental conservation organization, has developed lists of plant species of concern in California. Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants appearing on List 1B or List 2 are, in general, considered to meet CEQA’s Section 15380 criteria and adverse effects to these species may be considered significant.

### Santa Clara Valley Habitat Plan/Natural Community Conservation Plan

The Santa Clara Valley Habitat Plan/Natural Community Conservation Plan (HCP/NCCP)<sup>22</sup> was developed through a partnership between Santa Clara County, the cities of San José, Morgan Hill, and Gilroy, Santa Clara Valley Water District (SCVWD), Santa Clara Valley Transportation Authority (VTA), U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW). The HCP/NCCP is a conservation program intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth on approximately 500,000 acres of southern Santa Clara County.

The Habitat Plan identifies and preserves land that provides important habitat for endangered and threatened species. The land preservation is both to mitigate for the environmental impacts of planned development and public infrastructure operations and maintenance activities as well as to enhance the long term viability of endangered species.

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<sup>22</sup> A Habitat Conservation Plan (HCP) is a document consistent with the Federal Endangered Species Act (ESA) that allows local agencies to approve projects in endangered species’ habitats in exchange for identifying mitigation strategies based on a coordinated regional plan for conserving natural communities and endangered species. A Natural Community Conservation Plan (NCCP) is the State counterpart to the Federal HCP and provides a means of complying with the California Endangered Species Act. The NCCP goes farther than the HCP in that it addresses mitigation of development impacts and actions necessary to promote the long-term restoration of species. Thus the State requirements go above and beyond the Federal mitigation requirements. The Santa Clara Valley Local Partners have prepared a joint HCP/NCCP since the requirements of both documents are similar and the Partners desire coverage of State-listed species as well. (Source: Santa Clara Valley Habitat Plan. *Frequently Asked Questions*. Available at: [http://www.scv-habitatplan.org/www/site/alias\\_default/304/frequently\\_asked\\_questions.aspx](http://www.scv-habitatplan.org/www/site/alias_default/304/frequently_asked_questions.aspx).) Accessed July 3, 2014.

Species covered in the Habitat Plan are as follows:

- |   |  |
|---|--|
| • <b>Invertebrate</b><br>Bay Checkerspot Butterfly  | • <b>Mammals</b><br>San Joaquin Kit Fox  |
| • <b>Amphibians &amp; Reptiles</b><br>California Tiger Salamander<br>California Red-legged Frog<br>Foothill Yellow-legged Frog<br>Western Pond Turtle | • <b>Plants</b><br>Tiburon Indian Paintbrush<br>Coyote Ceanothus<br>Mount Hamilton Thistle<br>Santa Clara Valley Dudleya<br>Fragrant Fritillary<br>Loam Prieta Hoita<br>Smooth Lessingia<br>Metcalf Canyon Jewelflower<br>Most Beautiful Jewelflower |
| • <b>Birds</b><br>Western Burrowing Owl<br>Least Bell's Vireo<br>Tricolored Blackbird   |  |

#### Chapter 6, Condition 15 Western Burrowing Owl

Prior to any ground disturbance of a project site, Chapter 6, Condition 15 *Western Burrowing Owl* of the Habitat Plan requires a qualified biologist to complete preconstruction surveys in all suitable burrowing owl habitat areas as identified during habitat surveys (which is consistent with the City's Burrowing Owl Mitigation Plan described below). The purpose of the preconstruction surveys is to document the presence or absence of burrowing owls on the project site, specifically in areas within 250 feet of construction activity. Pre-construction survey measures required under the Habitat Plan are listed in Section 4.4.2.3, *Impacts to Nesting Birds* of this Initial Study. The project would implement avoidance measures from Condition 15 (which are listed in Section 4.4.2.3, *Impacts to Nesting Birds*) if burrowing owls or evidence of burrowing owls (e.g., i.e. tracks, whitewash, prey remains, pellets or other indicators at the entrance to ground squirrel burrows) are discovered on the site during the pre-construction surveys.

#### **Morgan Hill General Plan Policies**

Various policies in the City's General Plan have been adopted for the purpose of avoiding or mitigating biological resources impacts resulting from planned development within the City. The project would be in conformance with adopted City plans and policies, including those listed below.

- *Plants and Wildlife Policy 6a* – Preserve all fish and wildlife habitats in their natural state whenever possible. Consider development impacts upon wildlife and utilize actions to mitigate those environmental impacts.
- *Plants and Wildlife Policy 6b* – Minimize impacts upon wildlife when considering extending annexations, urban service areas, and other governmental actions that permit urban development of previously undeveloped property.
- *Plants and Wildlife Policy 6c* – Preserve outstanding natural features, such as the skyline of a prominent hill, rock outcroppings, and native and/or historically significant trees.
- *Plants and Wildlife Policy 6e* – Identify and protect wildlife, rare and endangered plants and animals and heritage resources from loss and destruction.

- *Plants and Wildlife Policy 6g* – Encourage use of native plants, especially drought-resistant species in landscaping to the extent possible.
- *Water Quality Policy 6h* – Preserve and protect mature, healthy trees whenever feasible, particularly native trees and other trees which are of significant size or of significant aesthetic value to immediate vicinity or to the community as a whole.

### City of Morgan Hill Burrowing Owl Habitat Mitigation Plan

The open grassland area and the burrows on the project site can serve as nests or overwintering refuge habitat for burrowing owls. Due to few sightings of the owls in the area, however, the owls would not likely occur at the project site (but have the potential to pass through the site). Since 2003, the City of Morgan Hill has implemented a citywide program (Burrowing Owl Habitat Mitigation Plan) to evaluate and mitigate impacts to burrowing owls and potential burrowing owl habitat that could result from development activities within the City limits. Under the Burrowing Owl Habitat Mitigation Plan, the City requires pre-construction owl surveys to be completed in areas of potentially suitable habitat (generally any grassland and/or mixed herbaceous vegetation below 600 feet above mean sea level) within 30 days of the on-set of construction. The protocol for pre-construction surveys under this mitigation plan is listed in Section 4.4.2.3, *Impacts to Nesting Birds* of this Initial Study. The City also requires the payment of fees for impacts to and near suitable burrowing owl habitat in accordance with the mitigation plan. If burrowing owls or evidence of burrowing owls are discovered on the project site, the implementation of avoidance measures listed in the Habitat Plan, Chapter 6, Condition 15 (see Section 4.4.2.3, *Impacts to Nesting Birds*) would be required. If there is no evidence of burrowing owls as a result of the preconstruction surveys, no further action for burrowing owls (beyond the payment of the mitigation fee) would be required. The project would be required to implement measures described in the City's Burrowing Owl Habitat Mitigation Plan to avoid direct impacts to burrowing owls, should they ever come to occupy the project site.

#### 4.4.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,10,11



	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,10,11
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,10,11
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,10,11
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,4,10,11
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12

#### 4.4.2.1 HCP/NCCP

The project site is covered by the HCP/NCCP (Habitat Plan) and development of the site would include participation in the mitigation strategy of the Habitat Plan. Development activities on the project site would include compliance with conditions on covered activities as described in Chapter 6 of the Habitat Plan. Compliance with the Habitat Plan includes payment of development-related fees. The project site is within the Habitat Plan's private development covered zone. The land cover for the site is identified by the Habitat Plan as *Grain, Row-crop, Hay and Pasture, Disked/ Short-term Fallowed* for approximately 39 acres of the site; the remaining one acre of the site (specifically on the western parcel, APN 728-36-014) is identified *Rural Residential* and *Urban – Suburban*.

The project site is in an area defined by the Habitat Plan as Fee Zone B, which imposes fees on development in areas comprised of agricultural and valley floor lands. The total fee amount is calculated based on the exact acreages of resources impacted, which is the total area that is proposed to be graded. Exact fees required to comply with the Habitat Plan would be calculated and imposed prior to development on the project site. Development on the project site would not conflict with the

applicable HCP/NCCP (Habitat Plan). The project shall pay the required fees for indirect impacts to agricultural and valley floor lands, and impacts related to nitrogen deposition in serpentine habitat. The project would not conflict with the adopted HCP/NCCP. **(Less Than Significant Impact)**

#### **4.4.2.2      *Impacts to Habitat***

Based on the biological evaluations, the listed special status species with potential to occur in the area (from the CNDDDB database) would not occur on the project site due to lack of suitable soils and habitat or the presence of only marginally suitable habitat (e.g., grasslands on-site that have been degraded by cattle grazing). There are no jurisdictional waters of the U.S. on the site. There are no special status wildlife that are likely to occur on the site. There are no sensitive habitats, including areas of high biological diversity, areas providing important wildlife habitat, or unusual or regionally restricted habitat types on the project site. Development of the site with up to 135 residential units would not directly affect a Federally-protected wetland nor have a substantial adverse effect on any riparian habitat or other sensitive natural community listed by the CNDDDB. As previously stated, development of the site would not conflict with the provisions of the adopted HCP/NCCP (Habitat Plan), or other approved local, regional, or state habitat conservation plan. **(Less Than Significant Impact)**

#### **4.4.2.3      *Impacts to Nesting Birds***

##### **Special-Status Bird Nesting Birds and Other Migratory Bird Species**

The special-status bird species (that have the potential to breed on the site) that could be adversely impacted by development activities (i.e., grading and tree removal) during breeding season (February 1<sup>st</sup> through August 31<sup>st</sup>) is the white-tailed kite. Other non-listed raptors and breeding birds that are protected under the Migratory Bird Treaty Act and could be impacted during breeding season including the killdeer that were observed on the project site (which could occur on the open grassland areas of the site). Given that there are only four trees on the site, breeding habitat for tree-nesting special status birds, including raptors, is extremely marginal. Development activities at the project site (i.e., grading and tree removal) during breeding bird season, however, could result in the abandonment of an active nest of raptors and other migratory birds or result in mortality of individual birds. The following measures would be implemented to protect eggs and nestlings from construction disturbances in compliance with the MBTA and California Fish and Wildlife Code.

**Impact BIO-1:** Construction of the proposed project could result in the loss of raptor and/or migratory bird eggs or nestlings, either directly by destroying an active nest or indirectly by disturbing and causing the abandonment of an active nest. **(Significant Impact)**

**Mitigation Measures:** The following mitigation measures shall be implemented to reduce potential adverse impacts on nesting and/or migratory birds to a less than significant level:

**MM BIO-1.1** If tree removal or ground disturbance activities are scheduled to commence during the breeding season (February 1<sup>st</sup> through August 31<sup>st</sup>), a pre-construction survey would be completed by a qualified biologist for tree nesting raptors and other

migratory birds within the onsite trees as well as trees within 250 feet of the project site. The pre-construction surveys shall occur within 30 days of the on-set of construction.

Pre-construction surveys during the nonbreeding season are not necessary for tree-nesting raptors and migratory birds, as they are expected to abandon their roosts during this period. The survey results shall be provided to the City's Community Development Director prior to issuance of demolition and grading permits.

- MM BIO-1.2** If nesting raptors or other migratory birds are detected on or adjacent to the project site during the pre-construction surveys, a suitable construction-free buffer (based on the City's approval) shall be established around all active nests. The precise dimension of the buffer (up to 250 feet) shall be determined at that time (by a qualified biologist) and may vary depending on location and species. The buffer areas shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

### **Burrowing Owls**

The biological evaluations completed in June and August 2013 indicate that burrowing owl habitat is present on the project site. Development of the project site could potentially result in the mortality of burrowing owls if they migrate onto the site in the future (due to the presence of squirrel burrows on the site). Burrowing owls are covered under the Habitat Plan and the project site is not within a burrowing owl fee zone (under the Habitat Plan).

- Impact BIO-2:** Development of the project site could result in the loss of burrowing owl eggs or nestlings, either directly by destroying an active nest or indirectly by disturbing and causing the abandonment of an active nest. **(Significant Impact)**

**Mitigation Measures:** The following mitigation measures shall be implemented to reduce potential adverse impacts on western burrowing owls to a less than significant level:

- MM BIO-2.1:** In accordance with the City's Burrowing Owl Mitigation Plan, a burrowing owl pre-construction survey would be completed by a qualified owl biologist within 30 days of ground disturbance/construction at the project site. The pre-construction survey would include the following four-phase protocol:

- **Habitat Assessment (Phase I):** A qualified burrowing owl biologist would complete a habitat assessment which would include a field survey for burrowing owl habitat at the project site, and the project area within 330 feet of the site, to determine if burrowing owl habitat is present. If it is determined that the project site has suitable burrowing owl habitat, then a qualified burrowing owl biologist would complete a burrow survey (Phase II below). If the project site does not have suitable burrowing owl habitat, then

no further field surveys would be required and a written report of survey of findings (Phase IV below) would be completed and submitted to the City's Community Development Director.

- **Burrow Survey (Phase II):** If suitable burrowing owl habitat is present on the project site, a qualified burrowing owl biologist would complete a burrow survey to determine if owl burrows are present on the project site. If burrows are present on the project site, then a qualified burrowing owl biologist would complete burrowing owl surveys (Phase III below). If there are no burrows present on the project site then no further field surveys would be required and a written report of survey findings (see Phase IV below, which would include a map of burrow areas) would be completed and submitted to the City's Community Development Director.
- **Burrowing Owl Surveys (Phase III):** If burrows are present on the project site, a qualified biologist would complete a burrowing owl survey. This survey can be completed concurrently with the habitat assessment (Phase I) and burrow survey (Phase II). If burrowing owls are present then a written report with survey findings (see Phase IV below, which would include a map of burrow areas) would be prepared and submitted to the City's Community Development Director.

If burrowing owls are not present, then a qualified burrowing owl biologist would complete four additional surveys separate dates and a written report of survey findings (see Phase IV below), which would be submitted to the City's Community Development Director.

The surveys would be completed two hours before to one hour after sunset or one hour before to two hours after sunrise. If owls are sighted, the surveys would include a map of owl sightings, occupied burrows, territorial boundaries, and a record of all breeding behavior.

- **Preconstruction Survey Written Report (Phase IV):** A written report of survey findings would be required for all phases of burrowing pre-construction construction survey (Phases I, II and III above) and would be submitted to the City's Community Development Director. The written report would be required to include the following if applicable: the number of owls, nesting pairs, seasonal pattern of use, map of site with occupied with occupied burrows.

**MM BIO-2.2** If burrowing owls are identified on the project site, development would comply with the measures detailed under Chapter 6, Condition 15 of the Habitat Plan (see **MM BIO 2.3** and **MM BIO 2.4** below) to reduce potential impacts to burrowing owls to a less than significant level.

**MM BIO-2.3:** In accordance with the Habitat Plan, Chapter 6, Condition 15, should a burrowing owl be located on the site in the non-breeding season (September through January), construction activities shall not be allowed within a 250-foot buffer unless the following avoidance measures are adhered to:

- A qualified biologist monitors the owls for at least three (3) days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
- The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.
- If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities shall cease within the 250-foot buffer.
- If the owls are gone for at least one week, the project proponent may request approval from the Santa Clara Valley Habitat Agency that a qualified biologist excavate usable burrows to prevent owls from re-occupying the project site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue.
- The biological monitor shall also conduct training of construction personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone (HCP/NCCP, Chapter 6, Condition No. 15).

**MM BIO-2.4:** In accordance with the Habitat Plan, Chapter 6, Condition 15, should a burrowing owl be located onsite in the breeding season (February through August), construction may occur inside of the 250-foot non-disturbance buffer during the breeding season if:

- The nest is not disturbed, and the project proponent develops an avoidance, minimization, and monitoring plan that will be reviewed by the Santa Clara Valley Habitat Agency and the Wildlife Agencies prior to project construction based on the following criteria:
  - The Santa Clara Valley Habitat Agency and the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife (USFW) approve of the avoidance and minimization plan provided by the project applicant;
  - A qualified biologist monitors the owls for at least three days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction);
  - The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities; and
  - If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities shall cease within the 250-foot buffer.
- If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the non-disturbance buffer

zone may be removed. The biologist shall excavate the burrow to prevent reoccupation after receiving approval from the CDFW and USFW.

- MM BIO-2.5** In accordance with the Burrowing Owl Mitigation Plan, the applicant shall submit a payment of burrowing owl mitigation fees to the City of Morgan Hill prior to receiving a site development and/or grading permit. These fees are applicable to the project (whether or not burrowing owls or evidence of burrowing owls are discovered in the project area during the pre-construction surveys).  
(Less Than Significant Impact with Mitigation)

#### 4.4.2.4 *Impacts to Special-Status Species*

##### **Special-Status Plant Species**

Due to the level of site disturbance (e.g., disking, degradation of habitat due to cattle grazing) and the lack of suitable habitat, special-status plant species that are known to occur in the region are not expected to occur on the project site. Therefore, development of the project site would not have a significant impact on special-status plant species. **(Less Than Significant Impact)**

##### **Special-Status Wildlife Species (Not covered under the MBTA)**

The special-status wildlife listed species that could possibly occur on the site (that are not included under the MBTA or the City's burrowing owl mitigation plan) are the American badger and the pallid bat. The remaining species listed are considered absent or unlikely to occur on the site. Although the grassland and shrub areas of the site could serve as foraging habitat, the site's lack of continuity with adjacent habitat areas and proximity to development would most likely discourage use by the American badger. The pallid bat may forage over the site periodically, however, there is no suitable roosting habitat at the project site. The project would have a less than significant impact on special-status wildlife species and no mitigation would be required for the development of the site (with the exception of necessary mitigation measures discussed above for migratory birds and burrowing owls). **(Less Than Significant Impact)**

#### 4.4.2.5 *Impacts to Protected Trees*

As discussed in Section 4.1, *Aesthetics* and Section 4.4.1, *Biological Resources Setting*, three non-native trees and one native elderberry tree are currently located on the site. All four trees on the site are proposed for removal. The native elderberry tree (with a trunk circumference of 54 inches) meets the City's definition of a tree in the Municipal Code Chapter 12.32 (described in Section 4.4.1.3, *City of Morgan Hill Tree Removal Controls*), and would be removed and replaced in accordance with the City's Municipal Code Chapters 12.28 and 12.32. In accordance with the City's Municipal Code Section 12.32.080, at least one native tree would be planted to replace the one native elderberry tree. All tree plantings would be approved by the City's Community Development Director.

The trees at the project site are not part of any CDFW-regulated or sensitive habitats. The trees do not function as part of a forest and the loss of these trees would not affect a larger forest habitat. With implementation of **MM BIO-1.1** and **MM BIO-1.2**, tree removal would not significantly



impact birds during the nesting season. For these reasons, development of the site in compliance with the requirements of the City of Morgan Hill Tree Removal Controls, which includes replacement of trees removed with plantings of new trees as deemed acceptable by the City of Morgan Hill Community Development Director, would not conflict with the City's Tree Ordinance.

#### **4.4.3 Reasonably Foreseeable Impacts to Adjacent Parcels**

As described in Section 3.0, *Project Description*, the proposed project is designed with new streets that terminate at the eastern border of the site, with the intent that the streets would eventually connect to future streets on the parcel to the east (Future Lands of Cochrane Road, APN 728-36-012), consistent with the Morgan Hill General Plan. The proposed project is also designed so that Mission View Drive terminates at the northern border, with the intent that it would eventually connect to Vista De Lomas on the APN 728-39-022 and APN 728-38-005 parcels to the north. Approval of the proposed project would commit future development on the adjacent parcels to a definite roadway system that connects to roadways proposed by the proposed project. The adjacent parcel to the east (APN 728-36-012) is mostly comprised of grassland with trees and one single-family residence, and the parcels to the north are comprised of grassland and single-family residences (APN 728-38-005) and greenhouses on paved concrete (APN 728-39-022).

There are no known sensitive habitats present on the adjacent parcels. As with the current project site, the adjacent parcels could become occupied by burrowing owls prior to construction, and the future development of the adjacent parcels would be required to implement the Habitat Plan's conditions on covered activities, including pre-construction surveys, to avoid direct impacts to owls, as well as pay applicable fees to offset loss of habitat. A tree survey would also be required for the adjacent parcel (APN 728-36-012, Future Lands of Cochrane Road) prior to development of this parcel. The removal of trees resulting from the adjacent properties would be evaluated in conformance with the City of Morgan Hill Significant Tree Removal Ordinance, and significant trees would be replaced at a ratio determined by the City.

#### **4.4.4 Conclusion**

Implementation of the General Plan policies, conformance with the City's Municipal Code, and implementation of the project-specific mitigation measures listed above would avoid or mitigate significant impacts to biological resources on the project site and in the vicinity of the site.

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

## 4.5 CULTURAL RESOURCES

The following discussion evaluates the cultural impacts of development on the project site. The discussion is based on a Cultural Resources Study prepared by *Holman & Associates* in July 2013, historical aerial photographs and agency records provided in the Phase I Environmental Site Assessment and Soil Quality Evaluation prepared by *Cornerstone Earth Group* in July 2013 for the western parcel (APN 728-36-014) and Modified Phase I Environmental Site Assessment prepared by *Engeo* in August 2013 for the eastern parcel (APN 728-36-013). The Cultural Resources Study is located in Appendix D and the Phase I ESAs are located in Appendix F of this Initial Study.

### 4.5.1 Environmental Setting

The project site's eastern parcel (APN 728-36-013) is mostly open, undeveloped land with seasonal grasses and shrubs. The site was used for agricultural purposes (orchard) from 1939 through the 1990s. The parcel was most recently used as a cattle pasture. A small wooden cattle shading shelter, a small triangular ancillary structure, and wooden fencing occurs on the southeast corner of the parcel. Based on historical aerial photographs, the structures on-site were constructed after 1998.

The western parcel (APN 728-36-014) is undeveloped land and is mostly comprised of a former orchard. The site was used for agricultural purposes from 1939 through 2012.

### Archaeological Resources

Based on the City's Archaeological Sensitivity Map included in the General Plan, a section of the eastern parcel is located within an archaeological sensitive area due to its proximity to Coyote Creek.<sup>23</sup> An archaeological resource field inspection and literature review were completed for the western parcel (APN 728-36-014) of the project site. Based on the archaeological literature review (which included research and review of recorded prehistoric and historic archaeological resources within one mile of the western parcel) completed at the Northwest Information Center (NWIC) in June 2013, the project site (the eastern and western parcels) is not a recorded prehistoric or historic site. There are four recovered prehistoric archaeological sites within one mile of the project site, along or near the riparian zone of Coyote Creek.

An archaeological resource field inspection was completed in June 2013 on the western parcel. The ground surface was inspected for evidence of Native American use and/or habitation similar to that seen at the Native American aboriginal village sites located along Coyote Creek. The Coyote Creek sites are identified by relatively dark soils containing evidence of fire (ash, charcoal, fire affected rock and earth), concentrations of stone, bone and fresh water shellfish, and artifacts of these materials. No evidence of historic and/or prehistoric archaeological deposits was found during the inspection/survey.

<sup>23</sup> City of Morgan Hill. *Archaeological Sensitivity Map*. April 2000.

## Historic Resources

The structures on-site were constructed after 1998, and therefore, do not meet the City's age criteria (Municipal Code Chapter 18.75) nor the state's criteria for a historic resource. There are no known historical structures of significance within the immediate vicinity of the site.

### 4.5.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
2. Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,13,14
3. Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
4. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,4,14

#### 4.5.2.1 Impacts to Cultural Resources

##### Historic Resource Impacts

The project site does not contain any historic structures. Therefore, the site has had no historical structures of significance, nor has the site been associated with person(s) or events of importance to the history of California or City of Morgan Hill. There are no known historic structures in the vicinity that would be directly or indirectly affected by development of the project site. **(No Impact)**

##### Subsurface Cultural Resource Impacts

Based on the findings from the Cultural Resources Study and the City's Archaeological Sensitivity Map, the project site is located in a moderate archaeologically sensitive area since development of adjacent properties has not resulted in the discovery of archaeological deposits. The four recorded archaeological sites (where Native Americans dwelled) inside the riparian zone of Coyote Creek (approximately one-quarter mile from the project site) indicate that the ideal habitation area did not extend far beyond the edges of the creek and that the village sites were limited to the year-round water source. There is nonetheless potential for the project to impact subsurface prehistoric and/or historic cultural resources, due to the proximity of the archaeological sites.

**Standard Condition (SC CUL-1): Archaeologically Sensitive Site** - In the unlikely event cultural materials are found during site grading or excavation, the following Standard Conditions would be implemented, in accordance with Section 18.75.110 of the Morgan Hill Municipal Code:

- If human remains are encountered they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need to know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.
  - Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.
  - Surgical mask should also be worn to prevent exposure to pathogens that may be associated with the remains.
- In the event that known or suspected Native American remains are encountered or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow points, groundstone mortars and pestles), culturally altered ash-stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials, and historic structure remains such as stone-lined building foundations, wells or privy pits. Ground-disturbing project activities may continue in other areas that are outside the discovery locale.
- An “exclusion zone” where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the Contractor Foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time of discovery, by the Monitoring Archaeologist (typically 25-50ft for single burial or archaeological find).
- The discovery locale shall be secured (e.g., 24 hour surveillance) as directed by the City or County if considered prudent to avoid further disturbances.
- The Contractor Foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:
  - The City of Morgan Hill Community Development Director:
  - (408) 779-7247
  - The Contractor’s Point(s) of Contact
  - The Coroner of the County of Santa Clara (if human remains found): (408) 793-1900
  - The Native American Heritage Commission (NAHC) in Sacramento: (916) 653-4082
  - The Amah Mutsun Tribal Band: (916) 481-5785 or (916) 743-5833
- The Coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American the Coroner has 24 hours to notify the NAHC.
- The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD) from the Amah Mutsun Tribal Band. (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.)

- Within 24 hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose.
- Within 24 hours of their notification by the NAHC, the MLD may recommend to the City's Community Development Director the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the Amah Mutsun Tribal Band may be considered and carried out.
- If the MLD recommendation is rejected by the City of Morgan Hill the parties will attempt to mediate the disagreement with the NAHC. If mediation fails then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

#### **4.6.3      Reasonably Foreseeable Impacts to Adjacent Parcels**

Future development on the property east of the project site (728-36-012) and north of the project site (APNs 728-39-022 and 728-38-005) would be completed in conformance with City's standard cultural resource measures and state regulations. The future extension of Mission View Drive to Vista De Lomas may require the demolition of a small shed on APN 728-38-005; however, the shed is not a known historical resource. There are no reasonably foreseeable impacts related to cultural resources that would result specifically from extension of the proposed project's new roadways onto the northern or eastern property at the location of the adjacent parcels.

#### **4.5.4      Conclusion**

Previously unrecorded prehistoric or historic cultural resources, paleontological resources, or human remains, could be uncovered during development of the project site. Implementation of the above Standard Conditions of Approval (refer to SC CUL-1) would avoid impacts to unknown buried cultural resources (archaeological, paleontological, and human remains, if any are present) from development on the site. There are no historic structures on the project site or in the immediate vicinity of the site that would be impacted by the development of the site.

**(Less Than Significant Impact)**

## 4.6 GEOLOGY AND SOILS

The following discussion evaluates the geology and soils impacts of development on the project site. The discussion is in part based upon a Preliminary Geotechnical Report completed by *Lai & Associates* in June 2013 for the western parcel (APN 728-36-014) and the Geotechnical Feasibility Assessment completed by *Engeo, Inc.* in August 2013 for the eastern parcel (APN 728-36-013). These reports are located in Appendix E of this Initial Study.

### 4.6.1 Setting

#### 4.6.1.1 *Existing Conditions*

The project site is located in the southern Santa Clara Valley. The Santa Clara Valley is bounded by the Santa Cruz Mountains to the west and the Diablo Mountain Range to the east. Alluvial materials from these mountains have been deposited on the valley floor, which overlies bedrock. The project site's surface is flat and ranges from approximately 385 to 400 feet above mean sea level (amsl).

Based on the City of Morgan Hill's Geology, Geologic, and Geological Hazards Maps (1991), the project site is underlain by Old Alluvium (Qoa), which consists of poorly consolidated to well consolidated deposits of gravel, sand, silt and clay. Native soils on the project site and in the immediate project area are described as unconsolidated colluvium, valley floor alluvium, or terrace deposits on flat or nearly flat ground.

Based on USDA Web Soil Survey, Custom Soil Report (completed in December 2014), most of the site's soils consist of ArA soils, which have low to moderate expansion potential. A portion of the site consists of SdA soils, which have moderate to high expansion potential.

Groundwater in the project area typically ranges from 25 to 50 feet below ground surface (bgs). Seasonal fluctuations in groundwater levels are expected in the area due to precipitation changes, perched zones, changes in drainage patterns, and irrigation.

### **On-Site Subsurface Conditions**

Based on the geotechnical field exploration to assess the eastern parcel's subsurface conditions (completed in August 2013), the parcel is underlain by very dense sand and silty sand with gravel up to 25 feet bgs, the maximum depth explored. The sandy and gravelly soils are medium dense to very dense.

Based on the geotechnical field exploration to assess the western parcel's subsurface conditions (completed in June 2013), the parcel is underlain by silty sand, sandy gravel and clayey sand up to 46.5 feet bgs, the maximum depth explored.

The sandy and gravelly soils are medium dense to very dense on both parcels and groundwater was not encountered during the field exploration of either parcel.



## Seismic Hazards

Due to the presence of nearby active faults,<sup>24</sup> the San Francisco Bay Area is considered a seismically active region. Significant earthquakes that occur in the San Francisco Bay Area are generally associated with the crustal movements along well-defined active fault zones of the San Andreas Fault system, which spans the Coast Ranges from the Pacific Ocean to the San Joaquin Valley.

The project site is not located within a designated Alquist-Priolo Earthquake Fault Zone<sup>25</sup> or a Santa Clara County Fault Rupture Hazard Zone.<sup>26</sup> The nearest mapped fault rupture hazard zone (associated with the Coyote Creek fault) is approximately 0.4 miles east of the project site. Based on the distance from the project site to this fault rupture hazard zone, ground rupture is unlikely to occur at the site.

Nearby active or potentially active faults, include the Calaveras, Hayward Southeast Extension, Monte Vista-Shannon, San Andreas, and Zayante - Vergeles faults. The distances to these faults are listed in Table 4.6-1. Due to the proximity of the project site to these active faults, ground shaking, ground failure, and/or liquefaction as a result of an earthquake could cause damage to structures.

<b>Table 4.6-1: Active Faults Near the Project Site</b>	
<b>Fault</b>	<b>Approximate Distance and Direction from Site</b>
Calaveras	3 miles northeast
Hayward Southeast Extension	9 miles northwest
Monte Vista – Shannon	11 miles southwest
San Andreas	12 miles southwest
Zayante – Vergeles	19 miles southwest

### Liquefaction

Liquefaction is a result of seismic activity and is characterized as the transformation of loose, water-saturated soils from a solid state to a liquid state after ground shaking. There are many variables that contribute to liquefaction, including the age of the soil, soil type, soil cohesion, soil density, and groundwater level. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits.

<sup>24</sup> An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within the Holocene time period (within the last 11,000 years).

<sup>25</sup> California Department of Conservation. *Special Studies Zones (Alquist-Priolo Earthquake Fault Zones Act)*. Morgan Hill. Revised Official Map. January 1982.

<<http://gmw.consrv.ca.gov/shmp/download/ap/pdf/MORGANHILL.PDF>>. Accessed December 16, 2014.

<sup>26</sup> County of Santa Clara. *County Geologic Hazard Zones – Maps. Map 45*. October 2004. Available at: <<http://www.sccgov.org/sites/PLANNING/GIS/GEOHAZARDZONES/Pages/SCCGeoHazardZoneMaps.aspx>>. Accessed December 16, 2014.

The northern section of the project site is located within a State of California Hazard Zone<sup>27</sup> for liquefaction and within a Santa Clara County Liquefaction Hazard Zone.<sup>28</sup> However, given that no significant loose sandy soils were encountered at the site and that the review of a previous geotechnical studies did not indicate significant impacts from historical earthquake-induced liquefaction for the project area, the risk of earthquake-induced liquefaction at the site is low.

### Lateral Spreading

Lateral spreading is a failure within a nearly horizontal soil zone (possibly due to liquefaction) that causes the overlying soil mass to move toward a free face (such as an open body of water, channel or excavation) or down a gentle slope. Generally, the effects of lateral spreading are most significant at the free face or the crest of a slope. Considering the low potential for liquefaction, flat topography at the project site and that there are no open bodies of water adjacent to the site, the potential for lateral spreading to affect the site is low.

### Differential Settlement

Differential (uneven) settlement is associated with loose unsaturated sands and gravels. These soils typically settle during strong seismic shaking.<sup>29</sup> The settlement of a structure is the magnitude of a foundation's downward movement.<sup>30</sup> Differential settlement during seismic shaking occurs when the foundation settles unevenly, which can cause one part of a structure to settle into the ground more than other which could cause damage to buildings, roadways, and hardscape improvements.

### Landslides

Landslides are the movement of rock, debris, or earth down a slope and typically occur in connection with other natural disasters such as earthquakes and floods. Landslides occur when the stability of a slope changes from a stable to an unstable condition. The stability of a slope is affected by the following primary factors: inclination, material type, moisture content, orientation of layering, and vegetative cover. In general, slopes steeper than approximately 15 degrees are typically most susceptible to landslides.<sup>31</sup> Slopes underlain by deeply weathered bedrock, unconsolidated deposits, or soils with a high content of expansive clay also have a greater tendency to fail. Earthquakes can induce landslides in hillside areas and along creeks. Activities that can increase landslide potential include poorly designed fill material and removal of protective vegetation.<sup>32</sup>

<sup>27</sup> Association of Bay Area Governments. Earthquake and Hazard Zones Program. *Liquefaction: Official California Seismic Hazards Zone Map*. Available at: <<http://quake.abag.ca.gov/earthquakes/>>. Accessed December 17, 2014.

<sup>28</sup> County of Santa Clara. *County Geologic Hazards Zones – Maps. Map 53*. October 2004. Available at: <<http://www.sccgov.org/sites/PLANNING/GIS/GEOHAZARDZONES/Pages/SCCGeoHazardZoneMaps.aspx>>. Accessed December 17, 2014.

<sup>29</sup> California Geological Survey. *Guidelines for Evaluating and Mitigating Seismic Hazards in California 2008*. Special Publication 117. 2008.

<sup>30</sup> California Geological Survey. *Note 33*. <[http://www.conservation.ca.gov/cgs/information/publications/cgs\\_notes/note\\_33/Pages/index.aspx](http://www.conservation.ca.gov/cgs/information/publications/cgs_notes/note_33/Pages/index.aspx)>. Accessed April 14, 2015.

<sup>31</sup> Association of Bay Area Governments. *Landslide Maps and Information*. Available at: <<http://resilience.abag.ca.gov/landslides/>>. Accessed October 30, 2014.

The project site is not located within a California Seismic Hazard Zone<sup>33</sup> for landsliding or within a Santa Clara County Landslide Hazard Zone. The project area is relatively flat and, therefore, the probability of landslides occurring at the project site during a seismic event is low.

#### **4.6.2.1      *Applicable Plans, Policies and Regulations***

##### **Alquist-Priolo Earthquake Fault Zoning Act**

The Alquist-Priolo Earthquake Fault Zoning Act regulates development in California near known active faults due to hazards associated with surface fault ruptures. The Earthquake Fault Zones indicate areas with potential surface fault-rupture hazards. Areas within the Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault. As discussed previously, the project site is not located in an Alquist-Priolo Earthquake Fault Zone.

##### **California Building Code**

The California Building Code prescribes a standard for constructing safer buildings throughout the State of California. It contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, strength of the ground and distance to seismic sources. The Code is renewed every three years; the current version is the 2013 California Building Code. Based on the City's Municipal Code Section 15.08.010 the City has adopted 2013 California Building Code which has become a part of the City of Morgan Hill Building Code.

##### **City of Morgan Hill General Plan**

Many of the policies in the City's General Plan were adopted for the purpose of avoiding or mitigating environmental effects that could result from development planned within the City. All future development is subject to General Plan policies, including the following, which would reduce or avoid geologic and seismic impacts:

- *Environmental Hazards Policy 1b* – Where urban development has already occurred and there has been extensive capital improvements made, use mitigation procedures for development on lands with geologic hazards, including geologic investigations on a scale commensurate with development where geologic data indicates there is a known or suspected problem.
- *Environmental Hazards Policy 1d* - Known or potential geologic, fire, and flood hazards should be reported as part of every real estate transaction, as well as recordation on documents to be reported for building permits, subdivisions and land development reports. Mitigation of hazards should be noted in the same manner.

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<sup>33</sup> California Geological Survey. *State of California Seismic Hazard Zones. Morgan Hill Quadrangle. Official Map.* October 2004.

- *Environmental Hazards Policy 1g* - New development should avoid hazardous and sensitive areas, and should occur only where it can be built without risking health and safety. New habitable structures should not be allowed in areas of highest hazard such as floodways, active landslides, active fault traces, and airport safety zones. In areas of less risk, development should be limited and designed to reduce risks to an acceptable level.
- *Environmental Hazards Action 2.7* - Require geotechnical investigations on all projects in unstable areas, including areas of expansive soils, prior to construction to insure that the potential hazards are identified and can be properly mitigated.
- *Environmental Hazards Action 2.10* - Contract with a consulting geologist for the review of development projects in potentially hazardous areas with costs covered by a fee to the developer

#### 4.6.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
a. Rupture of a known earthquake fault, as described 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.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,15,16, 17
b. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,15,16
c. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,15,16
d. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,15,16, 17
2. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
3. Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,15,16
4. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,15,16

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
5. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

#### 4.6.2.1 On-Site Geologic and Soil Impacts

##### Soils and Seismic Hazards

The project site is not within an Alquist-Priolo Earthquake Fault Zone<sup>34</sup> and the likelihood of fault rupture is extremely low; however, the project site is located in a seismically active region and strong ground shaking would likely occur at the project site during the life of the project.

Based on the results of the geotechnical subsurface investigations and the laboratory testing, the site is geotechnically suitable for the proposed development, provided that the recommendations in the geotechnical reports (based on California Building Code requirements) are incorporated in the design and during construction. Design-level geotechnical investigations and recommendations would be required for the final design and construction of the project.

To avoid or minimize potential damage from seismic shaking, the project would be constructed in accordance with standard engineering and seismic safety design techniques. The project would conform to the recommendations of a project-specific design-level geotechnical investigation (which would be included in a report to the City) and City-adopted Building and Fire codes. The structural designs for the proposed developments would account for repeatable horizontal ground accelerations. The report would be reviewed and approved by the City of Morgan Hill Building Division as part of the building permit review and issuance process. In compliance with the City's Building Code, development on the project site would be designed to withstand soil hazards (including expansive soils and soils that are susceptible to liquefaction, which could induce lateral spreading and differential settlement) which would reduce the risk to life and property to the extent feasible. The design-level geotechnical investigation report would be submitted to the City for approval and geologic clearance. The geotechnical report would be submitted prior to the City's issuance of the grading and building permits (in accordance with the City's Municipal Code Chapter 18.45).

For these reasons, the project would not expose people or structures to adverse effects from rupture of a known earthquake fault or strong seismic ground shakings. **(Less Than Significant Impact)**

The northern portion of the site is located within a liquefaction hazard zone. However, based on the geotechnical reports, and the on-site soil types, the potential for earthquake-induced liquefaction to

<sup>34</sup> California Geological Survey. *Regional Geologic Hazards Mapping Program*. AP. Available at: <http://www.conservation.ca.gov/cgs/rghm/ap/Pages/index.aspx>. Accessed October 30, 2014.

occur at the site is low. The site is considered to be an area of relatively stable ground not likely to be involved in landsliding, faulting or other lateral displacement type ground failures.<sup>35</sup>

**(Less Than Significant Impact)**

Soils on the site range from a low to high expansion potential which could result in structural damage. Incorporation of design-level geotechnical recommendations for appropriate grading operations, fill placement specifications tailored to the expansive characteristics of the soil, and use of a mat foundation (either post-tensioned or conventionally reinforced) would reduce the expansion potential of the site's soils. **(Less Than Significant Impact)**

### Soil Erosion

The proposed project would include grading during construction activities which could result in significant amounts of soil erosion if managed improperly. In accordance with the City's Standard Conditions of Approval, the project shall implement the following standard conditions (identified as SC GEO-1 and SC GEO-2 in this Initial Study) to avoid soil erosion during construction.

**Standard Condition (SC GEO-1), Storm Drain System:** Prior to final map approval or issuance of a grading permit the applicant shall complete the following to the satisfaction of the Director of Public Works.

1. Storm drain calculations to determine detention pond sizing and operations.
2. Plan describing how material excavated during construction will be controlled to prevent this material from entering the storm drain system.
3. Water Pollution Control Drawings for Sediment and Erosion Control.

**Standard Condition (SC GEO-2), Storm Drain System:** As required by the State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, construction activity resulting in a land disturbance of one acre or more of soil, or whose projects are part of a larger common plan of development that in total disturbs more than one (1) acre, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Associated with Construction Activity (General Permit). To be permitted with the SWRCB under the General Permit, owners must file a complete Notice of Intent (NOI) package and develop a Storm Water Pollution Prevention Plan (SWPPP) Manual in accordance with Section A, B, and C of the General Permit prior to the commencement of soil disturbing activities. A NOI Receipt Letter assigning a Waste Discharger Identification number to the construction site will be issued after the State Water Resource Control Board (SWRCB) receives a complete NOI package (original signed NOI application, vicinity map, and permit fee); copies of the NOI Receipt Letter and SWPPP shall be forwarded to the Building and Public Works Department review. SWPPP shall be made a part of the improvement plans. (SWRCB NPDES General Permit CA000002)

**(Less Than Significant Impact)**

<sup>35</sup> City of Morgan Hill. *Geology, Geologic and Geotechnical Hazards. Ground Movement Potential Map*. December 1991.



## **Soils and Wastewater Systems**

Development on the site would include infrastructure to adequately accommodate the disposal of wastewater. The project would connect to existing sanitary sewer lines in Cochrane Road (refer to Section 4.17, *Utilities and Service Systems*). The project would not include septic tanks or alternative wastewater disposal systems. **(No Impact)**

### **4.6.3      Reasonably Foreseeable Impacts to Adjacent Parcels**

Future development on the property east of the project site (728-36-012) and properties north of the project site (APNs 728-39-022 and 728-38-005) would be completed in conformance with applicable building codes and a design-level geotechnical report. There are no reasonably foreseeable impacts related to geology and soils that would result specifically from extension of the proposed project's new roadways onto the eastern property at the location of the adjacent parcel (728-36-012).

### **4.6.4      Conclusion**

With implementation of City's Standard Conditions of Approval (SC GEO-1 and SC GEO-2), the project would result in less than significant geology and soil impacts.  
**(Less Than Significant Impact)**

## 4.7 GREENHOUSE GAS EMISSIONS

### 4.7.1 Setting

#### 4.7.1.1 *Background Information*

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of greenhouse gases have a broader, global impact. Global warming associated with the “greenhouse effect” is a process where greenhouse gases accumulating in the atmosphere contribute to an increase in the temperature of the earth’s atmosphere. The principal greenhouse gases contributing to global warming and associated climate change are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated compounds. Emissions of greenhouse gases contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural sectors.

Impacts to California from climate change include shifting precipitation patterns, increasing temperatures, increasing severity and duration of wildfires, earlier melting of snow pack and effects on habitats and biodiversity. Sea levels along the California coast have risen up to seven inches over the last century, and average annual temperatures have been increasing. These and other effects would likely intensify in the coming decades and significantly impact the State's public health, natural and manmade infrastructure, and ecosystems.<sup>36</sup>

#### 4.7.1.2 *Existing Conditions*

The project site is currently unoccupied. The project site generates minimal greenhouse gas emissions from human activity. Indirect emissions are generated from the burning of fuel required for site maintenance (e.g., infrequent disking and/or mowing to control fire hazards, etc.).

#### 4.7.1.3 *State of California Regulatory Framework*

##### **AB 32 and Related Executive Orders and Regulations**

The Global Warming Solutions Act (also known as “Assembly Bill (AB) 32”) sets the State of California’s 2020 greenhouse gas emissions reduction goal into law. The Act requires that the greenhouse gas emissions in California be reduced to 1990 levels by 2020. Prior to the adoption of AB 32, the Governor of California also signed Executive Order S-3-05 which identified the California Environmental Protection Agency (CalEPA) as the lead coordinating State agency for establishing climate change emission reduction targets in California. Under Executive Order S-3-05, the State plans to reduce greenhouse gas emissions to 80 percent below 1990 levels by 2050 and Executive Order B-16-2012 established benchmarks for increased use of zero emission vehicles and zero emission vehicle infrastructure by 2020 and 2025. Additional State law and regulations related to the reduction of greenhouse gas emissions includes SB 375, the Sustainable Communities and

<sup>36</sup> California Energy Commission. 2009 *California Climate Adaptation Strategy Discussion Draft*. Public Review Draft. 2009. Available at: [http://www.allianceforwaterefficiency.org/uploadedFiles/Resource\\_Center/Library/water\\_resources/CNRA-1000-2009-027-D.pdf](http://www.allianceforwaterefficiency.org/uploadedFiles/Resource_Center/Library/water_resources/CNRA-1000-2009-027-D.pdf). Accessed April 14, 2015.

Climate Protection Act (see discussion below), the State's Renewables Portfolio Standard for Energy Standard (Senate Bill 2X) and fleet-wide passenger car standards (Pavley Regulations).

In December 2008, the CARB approved the Climate Change Scoping Plan, which proposed a comprehensive set of actions designed to reduce California's dependence on oil, diversify energy sources, save energy, and enhance public health, among other goals. Based on AB 32 requirements, the Scoping Plan must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 greenhouse gas reduction goal. In May 2014, CARB approved the First Update to the Climate Change Scoping Plan.<sup>37</sup> The 2014 First Update defines CARB's climate change priorities for the next five years and lays the groundwork to start the transition to the post-2020 goals set forth in Executive Orders S-3-05 and B-16-2012. The 2014 First Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the 2008 Scoping Plan and evaluates how to align the State's longer-term greenhouse gas reduction strategies with other State policy priorities, such as for water, waste, natural resources, agriculture, clean energy, and transportation and land use.

### **CEQA**

The California Natural Resources Agency, as required under State law (Public Resources Code Section 21083.05), amended the State CEQA Guidelines to address the analysis and mitigation of greenhouse gas emissions. In these changes to the CEQA Guidelines, Lead Agencies, such as the City of Morgan Hill, retain discretion to determine the significance of impacts from greenhouse gas emissions based upon individual circumstances. A Lead Agency may describe, calculate or estimate greenhouse gas emissions resulting from a project and use a model and/or qualitative analysis or performance based standards to assess impacts.

### **Senate Bill 375**

Senate Bill 375 (SB 375), known as the Sustainability Communities Strategy and Climate Protection Act, was signed into law in September 2008. It builds on AB 32 by requiring CARB to develop regional GHG reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035 when compared to emissions in 2005. The per capita reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.<sup>38</sup> The four major requirements of SB 375 are:

1. Metropolitan Planning Organizations (MPOs) must meet GHG emission reduction targets for automobiles and light trucks through land use and transportation strategies.
2. MPOs must create a Sustainable Communities Strategy (SCS), to provide an integrate land use/transportation plan for meeting regional targets, consistent with the Regional Transportation Plan (RTP).

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<sup>37</sup>California Air Resources Board. *First Update to the AB 32 Scoping Plan*. Last Revised May 2014. Available at <<http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>>. Accessed March 31, 2015.

<sup>38</sup> The emission reduction targets are for those associated with land use and transportation strategies, only. Emission reductions due to the California Low Carbon Fuel Standards or Pavley emission control standards are not included in the targets.

3. Regional housing elements and transportation plans must be synchronized on eight-year schedules, with Regional Housing Needs Assessment allocation numbers conforming to the SCS.
4. MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission.

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) has partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the San Francisco Bay Conservation and Development Commission to prepare the region's SCS as part of the RTP process.<sup>39</sup> The SCS is referred to as *Plan Bay Area*.

MTC and ABAG adopted *Plan Bay Area* in July 2013. The strategies in the plan are intended to promote compact, mixed-use development close to public transit, jobs, schools, shopping, parks, recreation, and other amenities, particularly within Priority Development Areas (PDAs) identified by local jurisdictions. The area around the Morgan Hill Caltrain Station is identified as a PDA, although the subject site is not.

#### **4.7.1.4      *Applicable Plans, Policies and Regulations***

##### **Bay Area 2010 Clean Air Plan**

The 2010 CAP is a multi-pollutant plan that addresses greenhouse gas emissions along with other air emissions in the San Francisco Bay Area Air Basin. One of the key objectives in the 2010 CAP is climate protection. The 2010 CAP includes emission control measures in five categories: Stationary Source Measures, Mobile Source Measures, Transportation Control Measures, Land Use and Local Impact Measures, and Energy and Climate Measures. Consistency of a project with current control measures is one measure of its consistency with the 2010 CAP. The current 2010 CAP also includes performance objectives, consistent with the State's climate protection goals under AB 32 and SB 375, designed to reduce emissions of greenhouse gas to 1990 levels by 2020 and 40 percent below 1990 levels by 2035.

##### **Morgan Hill General Plan**

Various policies in the City's General Plan have been adopted for the purpose of avoiding or mitigating greenhouse gas emissions impacts resulting from planned development within the City. The proposed project shall be in conformance with adopted City plans and policies, including those listed below.

- *Conservation Policy 7a* - New development should be designed to exceed State standards for the use of water and energy.
- *Conservation Policy 7b* - Promote energy conservation techniques and energy efficiency in building design, orientation and construction.

<sup>39</sup> ABAG, BAAQMD, BCDC, and MTC. *One Bay Area Frequently Asked Questions*. Available at: [http://onebayarea.org/about/faq.html#\\_UQceKR2\\_DAK](http://onebayarea.org/about/faq.html#_UQceKR2_DAK) Accessed June 4, 2013.

- *Conservation Policy 7g* - The landscaping plans for new development should address the planting of trees and shrubs that would provide shade to reduce the need for cooling systems and allow for winter daylighting.
- *Conservation Policy 7j* - The incorporation of renewable energy generating features, like solar panels, should be encouraged in the design of new development and in existing development.
- *Conservation Policy 7k* - Promote water conservation and efficient water use in all public and private development projects and landscaping plans.
- *Conservation Policy 7l* - Encourage use of non-potable water for landscape irrigation.
- *Level of Service Policy 8b* - Promote walking as an alternate transportation mode for its contribution to health and the reduction of energy consumption and pollution.

### **Morgan Hill Municipal Code**

#### **Sustainable Building Regulations**

Chapter 15.65 of the Municipal Code lists Sustainable Building Regulations. The purpose of this chapter is to assure that commercial and residential development is consistent with the City's Environmental Agenda (see below) and General Plan conservation policies 7a and 7b (listed above) to create a more sustainable community by incorporating sustainable building measures into the design, construction, and maintenance of new and existing buildings. The sustainable building provisions referenced in this chapter are designed to achieve the following objectives:

- Increase energy efficiency in buildings.
- Encourage water and resource conservation.
- Reduce waste generated by construction projects.
- Provide durable buildings that are efficient and economical to own and operate.
- Promote healthy and productive indoor environments for residents, workers and visitors to the City.
- Recognize and conserve the energy embodied in existing buildings.

Chapter 15.65 of the Municipal Code also includes details on the process of document submission, design review, sustainable building compliance, exceptions, appeal, and enforcement.

#### **Title 24**

The City of Morgan Hill Municipal Code requires all buildings to conform to the energy conservation requirements of California Administrative Code Title 24. In addition, the 2013 California Green Building Standards (CALGreen) Code, which includes requirements for energy and water conservation in new construction, became effective statewide on January 1, 2014.

### Water Conserving Landscapes Ordinance

The City of Morgan Hill Municipal Code Chapter 18.73 includes requirements for water conservation for new and existing development within the City. These measures include the Water Conserving Landscapes Ordinance adopted in February 2006.<sup>40</sup> This ordinance regulates landscape design, construction, and maintenance. It promotes efficient water use and management of peak season water demands.

### **City of Morgan Hill Environmental Agenda**

In 2007, the City Council adopted an Environmental Agenda to enhance the long-term sustainability of Morgan Hill by reducing environmental impacts, increasing community health, and protecting environmental resources for future generations. Progress on environmental goals is assessed on a yearly basis.

To promote and provide opportunities for residents to reduce GHG emissions, the City of Morgan Hill has taken the following steps:

- Posting a carbon calculator on the City's website that is specifically designed for Morgan Hill residents to help conceptualize their contribution to global warming and to provide strategies for reducing emissions;
- Promoting bicycling and walking to City of Morgan Hill events through giveaways;
- Requiring green building checklists to be filled out with building permits, and updating residential development control system criteria to strengthen green building incentives;
- Researching programs that would allow residents to purchase local carbon offsets that would directly benefit the community;
- Implementing programs to reduce the cost of installing solar systems;
- Arranging free bus service for VTA community bus route 16 on Earth Day;
- Providing educational material with utility bills; and
- The Sustainable Buildings Ordinance was adopted on December 16, 2009, which established "green building" requirements for both residential and non-residential development.

#### **4.7.2 Environmental Checklist and Discussion of Impacts**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,9

<sup>40</sup> City of Morgan Hill. *Water Supply Assessment for the Southeast Quadrant Area. Final Draft (Revised)*. December 2013.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,8,9,18

#### 4.7.2.1 Greenhouse Gas Emissions Impacts

Greenhouse gas emissions from the proposed project would include emissions from construction and occupancy of the residences. The greenhouse gas emissions from the project include:

- Construction emissions;
- Emissions from the manufacture and transport of building materials;
- Mobile emissions (e.g., emissions from combustion of fossil fuels for vehicle trips to and from the site); and,
- Emissions from the generation of electricity to operate lighting, appliances, and HVAC on the site, and to convey water to the site and treat wastewater from the site.

#### Construction Emissions

Greenhouse gas emissions would occur during construction of the project. Construction of the project would involve emissions associated with equipment and vehicles used to construct the project, as well as emissions associated with manufacturing the materials used to construct the project.

The project site is located near construction supplies and equipment, which would help minimize GHG emissions generated from transporting construction materials and waste. There is no reliable method to estimate construction-related emissions associated with the manufacturing of project materials.

The projected construction GHG emissions were calculated using the CalEEMod model. Based on the CalEEMod modeling analysis, GHG emissions associated with construction were estimated to be 594 MT of CO<sub>2</sub>e for the entire four year construction period. These emissions would be from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City of Morgan Hill nor the BAAQMD have quantified GHG thresholds for construction activities, however, BAAQMD encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable. Best management practices assumed to be incorporated into construction of the proposed project include, but are not limited to: the use of local building materials of at least 10 percent and recycling or the reuse of at least 50 percent of construction waste or demolition materials. With the implementation of these best management practices, the project would not contribute substantially to local or regional GHG emissions.

**(Less Than Significant Impact)**

### Operational Emissions

The proposed project would develop 135 single-family residential units. The projected operational greenhouse gas emissions were also calculated using the CalEEMod model. The CalEEMod provides emissions for transportation, areas sources, electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport. The year 2020 was analyzed for the project since it is the first year that most or all of the proposed residences are anticipated to be occupied. The per capita rate is the total annual GHG emissions expressed in metric tons divided by the service population (i.e., number of residences and employees). A future service population of approximately 411 persons was assumed for the proposed project in the GHG analysis (i.e., 3.04 persons per household).

Emissions were compared to the 4.6 MT CO<sub>2</sub>e per service population ‘efficiency’ threshold established by BAAQMD, and are estimated to be 3.5 MT CO<sub>2</sub>e per year in 2020. In conformance with BAAQMD’s CEQA Air Quality Guidelines, the project would not exceed the BAAQMD’s significance threshold of 4.6 MT CO<sub>2</sub>e per service population. Therefore, GHG emissions from the proposed project would not be considered cumulatively significant.

**(Less Than Significant Impact)**

<b>Table 4.7-1: Option 4 GHG Emissions</b>	
<b>Scenario</b>	<b>Annual GHG Emissions (CO<sub>2</sub>e in Metric Tons [MT])</b>
<i><b>Proposed Project - 2020</b></i>	
Area	11
Energy	307
Mobile	1,025
Waste	74
Water	20
Total emissions per year	1,437 MT CO <sub>2</sub> e/year
<i>BAAQMD Bright-line Threshold</i>	<i>1,100 MT CO<sub>2</sub>e/year</i>
Future Service Population	411 persons
Emissions per service population (Total MT of CO <sub>2</sub> e per year/ service population)	<b>3.5 MT CO<sub>2</sub>e/service population/year</b>
<i>BAAQMD Emissions Threshold for service population per year</i>	<i>4.6 of MT CO<sub>2</sub>e/service population/year</i>

#### 4.7.2.2 Consistency with Applicable GHG Reduction Plans, Policies, and Regulations

As discussed above, the project would not result in significant GHG emissions. For this reason, the project would not substantially impede local, regional, or statewide efforts to reduce overall GHG emissions to 1990 levels. Furthermore, the project would be required to conform to applicable policies and processes listed in Chapter 15.65 of the City of Morgan Hill Municipal Code, which details the City’s Sustainable Building Regulations. The project would, therefore, not result in GHG



emissions that would conflict with an applicable plan, policy, or regulation and would not result in the generation of greenhouse gases that would have a significant impact on the environment.

#### **4.7.3      Reasonably Foreseeable Impacts to Adjacent Parcels**

There are no reasonably foreseeable impacts related to GHG emissions that would result from the proposed location of the extension of the proposed project's new roadways onto the eastern property (APN 728-36-012) or the extension of Mission View Drive onto the northern adjacent parcels (APNs 728-39-022 and 728-38-005). GHG construction emissions from the future roadway development on the adjacent parcels would be temporary, and therefore, are not anticipated to be significant.

#### **4.7.4      Conclusion**

The proposed project would not result in significant construction or operational GHG emissions and would not conflict with any applicable plan, policy, or regulation pertaining to greenhouse gas reduction. **(Less Than Significant Impact)**

## 4.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based in part upon the Phase I Environmental Site Assessment and Soil Quality Evaluation completed by *Cornerstone Earth Group, Inc.* in July 2013 for the project site's western parcel (APN 728-36-014) and the Modified Phase I Environmental Site Assessment completed by *ENGEO, Inc.* in August 2013 for the eastern parcel (APN 728-36-013). These reports are included as Appendix F of this Initial Study.

### 4.8.1 Setting

#### 4.8.1.1 *Background*

Hazardous materials encompass a wide range of substances, some of which are naturally-occurring and some of which are man-made. Examples include pesticides, herbicides, petroleum products, metals (e.g., lead, mercury, arsenic), asbestos, and chemical compounds used in manufacturing and other uses. Determining if such substances are present on or near project site is important because, by definition, exposure to hazardous materials above regulatory thresholds can result in adverse health effects on humans, as well as harm to plant and wildlife ecology.

Due to the fact that these substances have properties that are toxic to humans and/or the ecosystem, there are multiple regulatory programs in place that are designed to minimize the chance for unintended releases and/or exposures to occur. Other programs set forth remediation requirements at site where contamination has occurred.

Hazardous waste generators and hazardous materials users in the City are required to comply with regulations enforced by several Federal, State, and County agencies. The regulations are designed to reduce the risk associated with the human exposure to hazardous materials and minimize adverse environmental effects. State and Federal construction worker health and safety regulations require protective measures during construction activities where workers may be exposed to asbestos, lead, and/or other hazardous materials.

#### 4.8.1.2 *Site Existing and Historic Uses*

##### **Existing Uses**

The eastern parcel is mostly undeveloped land with seasonal grasses and shrubs. Recently, the parcel has been used as cattle pasture. There is a small shade shelter in the southeast corner of the site and a watering trough along the north boundary. During the Phase I ESA site reconnaissance in July 2013, undocumented fill, cobbles, and debris that was roughly 300 square feet in area was observed in the northwest corner of the eastern parcel.

The western parcel is undeveloped and is comprised of a former vineyard (approximately 16 acres) and vacant land (with seasonal grasses).

## Historic Uses

The eastern parcel was agricultural land from 1939 until the early 2000s. In 2005, the parcel was vacant and was no longer used for agricultural purposes. A small structure that is currently on the parcel was formerly used as a shade shelter for cattle.

The western parcel was predominately a vineyard from 1939 to 2012 and was used for agricultural purposes during this period. From the 1950s until 2012, the three-acre southern portion of the parcel (which consists of seasonal grasses) was used for cattle grazing.

### 4.8.1.3 *Surrounding Area Uses*

## Existing Uses

The project site is bordered by approximately 20 acres of vacant land and a single-family residence to the east (Future Lands of Cochrane Road residential development, APN 728-36-012), mostly undeveloped land with an unoccupied tent currently used for sports and recreation and a parking lot (which would be a part of the future second phase of the Target Shopping Center project) to the west, Cochrane Road, an outdoor open space area and single-family residences to the south, and several greenhouses, residences and agricultural uses to the north. Beyond the immediately adjacent lots, the site is generally surrounded by residential developments to the east and south, commercial development to the west, and agricultural land to the northwest.

## Historic Uses of Surrounding Properties

The site vicinity was comprised of mainly agricultural land with scattered residences from the 1939 to the 1990s. In the 1980s farming structures were located in the project area. An increase in residential and commercial development occurred in the 1990s and 2000s.

### 4.8.1.4 *On-Site Sources of Contamination and Sampling*

Given the historic agricultural uses of the project site, soil sampling was completed in June and July of 2013 (for the western and eastern parcels, respectively) to identify the concentration levels of organochlorine pesticides and pesticide-related metals on the site. Based on the laboratory results of the collected samples, concentrations of organochlorines were below the California Human Health Screening Levels (CHHSLs) established by the California Environmental Protection Agency (CALEPA). CHHSLs are used to screen properties for potential human health concerns where releases of chemicals to soil have occurred. The arsenic concentrations at the project site were consistent with background soil concentrations for Santa Clara County.

Based on Phase I ESA reviews of the regulatory agency database (including federal, state, local and tribal databases) records search completed for both parcels, the project site was not identified on any of the regulatory agency databases and, therefore, no hazardous materials violations or discharges are known to have occurred on the site. Based on the site reconnaissance completed for both parcels, there was no physical evidence of adverse impacts to soil or groundwater associated with the use or past use and/or storage of hazardous materials on the site.

#### **4.8.1.5      *Off-Site Sources of Contamination***

Regulatory agency database records searches were completed for off-site properties/facilities within a one mile radius of the site to identify off-site properties that could significantly impact the site due to hazardous material releases. There were eight off-site properties listed within one mile of the site. Based on factors such as distance from the project site, regional topographic gradient, anticipated groundwater flow direction away from the site, or previous remediation activities that have been completed at the properties, these off-site properties are unlikely to adversely impact the project site and are not considered recognized environmental concerns requiring further investigation. No hazardous material incidents have been reported in the vicinity that would be likely to significantly impact the project site.

#### **4.8.1.6      *Applicable Plans, Policies, and Regulations***

##### **Government Code Section 65962.5 (Cortese List)**

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act by providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The Cortese List includes lists maintained by the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (SWRCB), and the California Integrated Waste Management Board (CIWMB).<sup>41</sup> The project site is not listed by the DTSC, SWRCB, or CIWMB as a hazardous materials site.

##### **California Health and Safety Code, Emergency Response Plans**

*Calif. Health and Safety Code Chap. 6.95, Hazardous Materials Release Response Plans and Inventory, Division 20, Sections 25500 - 25519*) contain requirements for emergency response plans. The purpose of these plans is to assist local agencies in preparing for a hazardous material spill. Emergency plans identify the potential for accidents in a community, define a chain of command in the event of an emergency, outline escape routes if necessary, and provide other emergency procedures. Each responsible agency maintains detailed operation procedures for responses to hazardous material spills.

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<sup>41</sup> The DTSC, SWRCB, and CIWMB hazardous material sites lists are available online at [http://www.dtsc.ca.gov/SiteCleanup/Cortese\\_List.cfm](http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm), <http://www.ciwmb.ca.gov/Swis/search.aspx>, and <http://geotracker.swrcb.ca.gov/>, respectively.

**4.8.2 Environmental Checklist and Discussion of Impacts**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,19,20
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,9
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,19,20
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,21
6. For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
7. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,22

#### 4.8.2.1 *Impacts from the Proposed Project*

The project would include the demolition of the existing former shade shelter and the construction of a total of 135 single-family residences. There are no habitable structures on the site, therefore, no asbestos-containing materials and lead-based paint are likely to be present on-site. Soil sample results showed that no significant concentrations of organochlorine pesticides or pesticide-related metals (from former agricultural uses on or adjacent to the project site) occur on the site. Based on the Phase I ESAs completed in June and July 2013, no recognized environmental concerns have been identified at the site. **(Less Than Significant Impact)**

The proposed residential project would not emit hazardous emissions or use acutely hazardous materials. For these reasons, the project would not create a significant hazard to the public or the environment, through the routine transport, use, or disposal of hazardous materials. **(Less Than Significant Impact)**

#### 4.8.2.2 *Impacts to the Proposed Project*

Based on agency database searches completed as part of the Phase I ESAs for both parcels, there are no past hazardous waste spills, releases, or hazardous waste incidents in the project vicinity that would be likely to impact the project site. Although several off-site properties that have used or stored hazardous materials were listed on agency databases, due to factors such as distances and regional topographic gradient, these off-site properties are unlikely to pose an environmental risk to the project site. **(Less Than Significant Impact)**

#### 4.8.2.3 *Other Hazards*

The nearest airport to the project site is the South County Airport (which is approximately six miles south of the site). The project site is not located within the South County Airport Influence Area (AIA) which is a composite of the areas surrounding the airport that are affected by noise, height, and safety considerations.<sup>42</sup> The project site is not located within the vicinity of a private airstrip. The project site is located in a suburban setting and is not subject to wildland fires.<sup>43</sup> There are currently no adopted emergency response plans or emergency evacuation plans applicable to the project site.

There are no schools within one-quarter mile of the project site. The nearest school (Live Oak High School) is approximately 0.6 miles south of the site. Hazardous materials emissions or handling (during construction) at the project site would, therefore, not impact nearby schools. **(No Impact)**

<sup>42</sup> Santa Clara County Airport Land Use Commission. *Comprehensive Land Use Plan, South County Airport*. November 2008. <[http://www.countyairports.org/docs/CLUP\\_E16/CLUP\\_Draft\\_E16\\_052108.pdf](http://www.countyairports.org/docs/CLUP_E16/CLUP_Draft_E16_052108.pdf)> Accessed April 2014.

<sup>43</sup> City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map*. March 2009. <<http://www.morgan-hill.ca.gov/index.aspx?nid=657>>. Accessed April 2014.

#### **4.8.3            Reasonably Foreseeable Impacts to Adjacent Parcels**

There is currently no Phase I ESA available for the property to the east (APN 728-36-012) of the project site or the properties (APNs 728-39-022 and 728-38-005) to the north of the site; therefore, it is not possible to identify all hazardous conditions that may exist. The properties surrounding the project site were historically used for agricultural production and there may be elevated levels of agricultural pesticides in any given area of the properties. Prior to future development of the adjacent parcels, a Phase I ESA would be prepared, and any recognized environmental conditions related to hazardous materials would be mitigated to a less than significant level. With cleanup of any future identified hazardous conditions (if present), extension of the proposed project's new roadways onto the adjacent parcels would not result in any hazardous materials impacts.

#### **4.8.4            Conclusion**

The project site's soils are not contaminated (from past agricultural uses) above regulatory screening levels or background levels. The project site is not subject to airport hazards or wildfires. The project would not interfere with an emergency evacuation plan and would not result in a significant impact to the public or environment. **(Less Than Significant Impact)**

## 4.9 HYDROLOGY AND WATER QUALITY

### 4.9.1 Setting

The project site encompass 40 acres (comprised of two 20-acre parcels). The project site is relatively flat with an elevation range of 385 to 400 feet above mean sea level. Local topography slopes very gradually to the southwest. Coyote Creek is the nearest waterway to the site (approximately one-quarter mile north of the site).

The surface on the project site is mostly pervious (see Table 4.9-1 below) and the drainage from the property flows in the southwest direction (along with the topography).

#### 4.9.1.1 *Drainage*

The City of Morgan Hill is divided into several hydrologically distinct drainage areas. Each drainage area has a system of conveyance facilities, pumps, and detention basins to collect and dispose the runoff. The stormwater runoff from these areas is collected and ultimately discharged into creeks that flow through the City and are tributary to either San Francisco Bay or Monterey Bay. The drainage areas include Coyote Creek, Fisher Creek, Tennant Creek, Madrone Channel, Butterfield Channel, West Little Llagas Creek, and Llagas Creek.

Stormwater is typically collected in the existing on-site or off-site stormwater facilities then flows into the City's stormwater system. The project site is located within the Coyote Creek basin drainage area. Coyote Creek drains the area north of Cochrane Road and east of US Highway 101.<sup>44</sup> The creek drains water in the northerly direction to the San Francisco Bay. A stormwater detention basin is located on the Target Phase II property, which is adjacent to and west of the project site.

#### 4.9.1.2 *Groundwater*

The project site is located in the Gilroy-Hollister Valley Groundwater Basin and within the Santa Clara Subbasin (within the Coyote Valley recharge area);<sup>45</sup> the inferred direction of groundwater is to the southwest. Groundwater levels fluctuate based upon seasonal rainfall, time of year, local irrigation, and well pumping. Depth to groundwater in the project area ranges seasonally from 25 to 50 feet bgs.

#### 4.9.1.3 *Water Quality*

The water quality of ponds, creeks, streams, and other surface water-bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as "non-point" source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Grading and excavation activities during construction of the proposed residential development could increase the amount of surface water runoff (i.e., particles of fill or excavated soil) from the site, or could erode soil downgradient, if the flows are not controlled.

<sup>44</sup> City of Morgan Hill, *Storm Drainage System Master Plan*, January 2002, <http://ca-morganhill.civicplus.com/DocumentCenter/Home/View/622>.

<sup>45</sup> Santa Clara Valley Water District. 2012 *Groundwater Management Plan*. July 2012.



Deposition of eroded material in water features could increase turbidity, thereby endangering aquatic life, and reducing wildlife habitat. Excessive precipitation can carry these non-point pollutants downstream. Best management practices would be implemented, to control erosion and sedimentation during construction, minimize surface runoff from the project site, and reduce impacts to water quality in the area.

#### **4.9.1.4      *Flooding***

The project site is not in a special flood hazard zone [identified by the Federal Emergency Management Agency (FEMA) as Zone A or V, which are high-risk areas within the 100-year floodplain].<sup>46</sup> The site is, therefore, not likely to be subject to a 100-year flood. The project site is located within the FEMA's Flood Insurance Rate Map (FIRM) Zone D designation. The Zone D designation is applicable to areas where there are possible but undetermined flood hazards.

#### **4.9.1.5      *Dam Failure***

The Association of Bay Area Governments (ABAG) compiled the dam failure inundation hazard maps submitted to the State Office of Emergency Services by dam owners throughout the Bay Area. The project site is located within the Anderson Dam failure inundation area.<sup>47</sup>

#### **4.9.1.6      *Seiche, Tsunami, and Mudflows***

A seiche is defined as a wave generated by rapid displacement of water within a reservoir or lake, due to an earthquake that triggers land movement within the water body or landsliding into or beneath the water body. The project site is not located near a waterbody that is considered susceptible to a seismically-induced seiche, given the physical geography of the sites and physical characteristics of the surrounding waterbodies.

A tsunami is a large tidal wave caused by an underwater earthquake or volcanic eruption. Tsunamis affecting the San Francisco Bay Area can result from off-shore earthquakes within the Bay Area. The project site is not located within a tsunami inundation area.<sup>48</sup>

A mudflow is a large rapid (up to approximately 50 miles per hour) mass of mud formed by loose earth and water. Hillsides and slopes of unconsolidated material could be at risk to mudflows if these areas become saturated.<sup>49</sup> The project area is relatively flat and there are no hillsides near the site, therefore, the project site is not likely to be subjected to mudflow.

<sup>46</sup> Federal Emergency Management Agency. *Flood Insurance Rate Map. Community Panel Number 06085C0442H*. May 18, 2009. Available at: <<https://msc.fema.gov>>. Accessed April 1, 2015.

<sup>47</sup> City of Morgan Hill. *Morgan Hill 2035 Existing Conditions White Papers. Chapter 4: Environmental Resources and Hazards. Figure 4-13 Dam Inundation Area. Public Review Draft*. May 2013. Available at: <[http://morganhill2035.org/wp-content/uploads/2013/06/4\\_EnvResourcesHazards.pdf](http://morganhill2035.org/wp-content/uploads/2013/06/4_EnvResourcesHazards.pdf)>. Accessed April 1, 2015.

<sup>48</sup> Association of Bay Area Governments. *Tsunami Inundation Map for Coastal Evacuation*. Available at: <<http://quake.abag.ca.gov/tsunamis/>>. Accessed April 1, 2015.

<sup>49</sup> U.S. Geological Survey. *Landslide Hazards*. USGS Fact Sheet FS-071-00. May 2000.

#### 4.9.1.7 *Applicable Plans, Policies and Regulations*

The Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality. Regulations set forth by the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board have been developed to fulfill the requirements of this legislation. EPA's regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by water quality control boards, which for the Morgan Hill area north of Cochrane Road<sup>50</sup> is the San Francisco Bay Regional Water Quality Control Board (SF RWQCB).<sup>51</sup>

The SF RWQCB issues and enforces NPDES permits for discharges to water bodies in the portion of Morgan Hill that drains to the San Francisco Bay. The RWQCB is also tasked with preparation and revision of a regional Water Quality Control Plan, also known as the Basin Plan. The SF RWQCB's latest Basin Plan was approved in April 1975, and the last revisions to the plan were completed in 2004; the most recent Amendment to the plan was approved in March 2015.<sup>52</sup> The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to control water quality and protect beneficial uses.

Under Section 303(d) of the 1972 Clean Water Act, States are required to identify impaired surface water bodies and develop total maximum daily loads (TMDLs) for contaminants of concern. The TMDL is the quantity of pollutant that can be safely assimilated by a water body without violating water quality standards. Listing of a water body as impaired does not necessarily suggest that the water body cannot support the beneficial uses; rather, the intent is to identify the water body as requiring future development of a TMDL to maintain water quality and reduce the potential for future water quality degradation. Coyote Creek watershed (approximately 55 miles in length) is listed by the U.S. Environmental Protection Agency as an impaired water body for garbage pollutants and pesticides due to unpermitted discharges and urban runoff.<sup>53</sup>

#### **NPDES General Permit for Construction Activity**

The State Water Resources Control Board has implemented a National Pollution Discharge Elimination System (NPDES) General Construction Permit for the State of California. Construction activity subject to this permit includes clearing, grading, and ground disturbances such as stockpiling

<sup>50</sup> Santa Clara Valley Habitat Agency. *Other Permits: Local Agencies*. Available at: <<http://scv-habitatagency.org/315/Other-Permits>>. Accessed April 1, 2015.

<sup>51</sup> Historically, efforts to prevent water pollution focused on "point" sources, meaning the source of the discharge was from a single location (e.g., a sewage treatment plant, power plant, factory, etc.). More recent efforts are focusing on pollution caused by "non-point" sources, meaning the discharge comes from multiple locations. The best example of this latter category is urban stormwater runoff, the source of which is a myriad of impervious surfaces (e.g., highways, rooftops, parking lots, etc.) that are found in a typical city or town.

<sup>52</sup> San Francisco Bay Regional Water Quality Control Board. *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*. Amended March 2015. Available at: <[http://www.waterboards.ca.gov/sanfranciscobay/basin\\_planning.shtml](http://www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml)>. Accessed April 3, 2015.

<sup>53</sup> State Water Resources Control Board. *Impaired Water Bodies. 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) – Statewide*. Available at: <[http://www.waterboards.ca.gov/water\\_issues/programs/tmdl/integrated2010.shtml](http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml)>. Accessed April 3, 2015.

or excavation. For projects disturbing one acre or more of soil,<sup>54</sup> a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared prior to commencement of construction.<sup>55</sup>

Once grading begins, the SWPPP must be kept on-site and updated as needed while construction progresses. The SWPPP details the site-specific Best Management Practices (BMPs) to control erosion and sedimentation and maintain water quality during the construction phase. The SWPPP also contains a summary of the structural and non-structural BMPs to be implemented during the post-construction period, pursuant to the nonpoint source control practices and procedures encouraged by the City of Morgan Hill and the RWQCB.

### **NPDES Municipal Stormwater Permit**

The U.S. EPA has delegated management of NPDES requirements for municipal urban runoff discharges in California to the State Water Resources Control Board and the nine RWQCB's. Since the project is located in the portion of Santa Clara County within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB), post-construction stormwater treatment must be consistent with the requirements of the National Pollutant Discharge Elimination System (NPDES) Municipal Regional Permit (MRP) for the management stormwater runoff (Order R2-2009-0074; NPDES Permit No. CAS612008). Even though Morgan Hill is not a named permittee in the MRP, the San Francisco Bay RWQCB applies MRP-compliant treatment requirements to projects requiring certification from the San Francisco Bay RWQCB.

#### **4.9.1.8 *Applicable Plans, Policies and Regulations***

##### **City of Morgan Hill General Plan**

Many of the policies in the City's General Plan were adopted for the purpose of avoiding or mitigating environmental effects that could result from development planned within the City. All future development is subject to General Plan policies, including the following, which would reduce or avoid hydrology and water quality impacts:

- *Flood Control Policy 4h* – Areas which are developed or planned for development should be protected by the construction of flood control facilities. Development should be managed through advanced planning and design standards to minimize off-site flooding and drainage problems.
- *Flood Control Policy 4k* – Require developers whose proposed projects would induce downstream flooding to provide mitigation to eliminate the flood-inducing impacts of their projects.

<sup>54</sup> Effective July 1, 2010, all dischargers are required to obtain coverage under the Construction General Permit Order 2009-0009-DWQ adopted on September 2, 2009. Source: State Water Resources Control Board website, updated September 24, 2009, [http://www.swrcb.ca.gov/water\\_issues/programs/stormwater/construction.shtml](http://www.swrcb.ca.gov/water_issues/programs/stormwater/construction.shtml).

<sup>55</sup> Santa Clara Valley Urban Runoff Pollution Prevention Program. *Stormwater Pollution Control Requirements*. updated December 5, 2005.

- *Flood Control Policy 4o* – Require all local development to provide appropriate mitigation of off-site flooding impacts, including limiting runoff to pre-development levels and/or complete solutions to flooding and local drainage problems in the vicinity of the development, using such methods as detention or retention.
- *Flood Control Policy 4p* – Require careful consideration of the cumulative effects of development which would drain into the upper reaches of Llagas Creek and other creeks, in order to avoid the need for channelization and consequent destruction of its riparian vegetation and natural habitat.
- *Water Quality Policy 5a* – Protect water quality from contamination, and monitor it to assure the present policies and regulations are adequate. Prohibit such uses as waste facilities, septic systems, and industries using toxic chemicals whereby polluting substances may come in contact with groundwater, floodwaters, and creeks, or reservoir waters.

#### 4.9.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,23
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will 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 will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,23
4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
5. Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,23
6. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
7. Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,24
8. Place within a 100-year flood hazard area structures which will impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,24
9. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,25
10. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,26

#### 4.9.2.1 *Drainage Impacts*

Development on the project site would increase the amount of impervious surfaces (i.e., buildings, driveways, and sidewalks) on the project site and, as a result, would increase the amount of stormwater runoff generated by the site.

The project site is currently comprised of 0.7 percent of impervious surfaces. At completion of project construction, 49.7 percent of the site's surfaces would be impervious.

Table 4.9-1: Pervious and Impervious Surfaces						
	Existing Conditions (square feet)	Percentage (%)	Proposed Condition (square feet)	Percentage (%)	Difference (square feet)	Percentage Difference (%)
Building Footprint(s)	0	0	334,140	19.1	334,140	19.1
Parking	0	0	295,780	16.9	295,780	16.9
Sidewalks, Patios, Paths, etc.	11,518	0.7	238,780	13.7	227,262	13.0

<b>Table 4.9-1: Pervious and Impervious Surfaces</b>						
	<b>Existing Conditions (square feet)</b>	<b>Percentage (%)</b>	<b>Proposed Condition (square feet)</b>	<b>Percentage (%)</b>	<b>Difference (square feet)</b>	<b>Percentage Difference (%)</b>
Pervious Surfaces/ Landscaping	1,736,242	99.3	879,060	50.3	-857,182	-49.0
<b>Total</b>	<b>1,747,760</b>	<b>--</b>	<b>1,747,760</b>	<b>100</b>	<b>--</b>	<b>--</b>
Impervious Surfaces	11,518	0.7	868,700	49.7	857,182	49.0
Pervious Surfaces	1,736,242	99.3	879,060	50.3	-857,182	-49.0
<b>Total</b>	<b>1,747,760</b>	<b>100</b>	<b>1,747,760</b>	<b>100</b>		<b>--</b>
<b>Notes</b> One acre = 43,560 square feet Total site acreage = 40 acres						

Stormwater runoff from the proposed development would be managed via stormwater control measures such as linear bioswales and bioretention basins for smaller storm treatment and infiltration, and a larger centralized hydromodification basin to address peak flow mitigation for larger, less frequent storm events. The hydromodification basin would be located in the central open space (approximately 2.8-acres). All treatment measures and the hydromodification basin would be designed in accordance with the San Francisco Regional Water Quality Control Board C.3 requirements and City of Morgan Hill Design Standards.

Runoff is proposed to be conveyed to the smaller treatment facilities via surface flow in street gutters in conjunction with curb cuts or under sidewalk drains. Excess runoff is proposed to be collected in a new underground pipe conveyance system comprised of 15-inch to 18-inch diameter storm drains, which outfall to the central hydromodification basin. An overflow structure and pipe system would convey excess runoff from the hydromodification basin to the existing City of Morgan Hill storm drain system at the intersection of Peet Road and Eagle View Drive, which ultimately discharges to Coyote Creek.

In accordance with the City of Morgan Hill Standard Conditions of Approval, a Storm Drainage Study would be submitted to the Director of Public Works for review and approval prior to issuance of a grading permit. The Study would include calculations to ensure that runoff from the project site would not exceed the capacity of existing or planned stormwater drainage systems.<sup>56</sup> The project, therefore, would result in less than significant drainage impact. **(Less Than Significant Impact)**

<sup>56</sup> Using the City's requirements for sizing, the project site would be required to provide storage for a 25-year, 24-hour storm with an additional capacity of 25 percent for freeboard.

#### 4.9.2.2 *Flooding Impacts*

The project site is not in a FEMA special flood hazard area identified as Zone A or V, which are high-risk flood areas within the 100-year flood zone, i.e. areas that could be inundated by a flood event having a one percent chance of being equaled or exceeded in any given year.<sup>57</sup> The site has a Zone D designation which has a possible but undermined flood risks (since no analysis of flood hazards has been conducted in these areas), but are not within a 100-year flood hazard area. Since the project site is not within a special flood hazard area defined by FEMA and the City of Morgan Hill Flood Damage Prevention Ordinance (Section 18.42, Morgan Hill Municipal Code), the project site is not anticipated to be subject to significant flood hazards. **(Less Than Significant Impact)**

#### **Dam Failure**

The City of Morgan Hill is located in the dam failure inundation area of Anderson Dam. While the project site is subject to inundation should the Anderson Dam fail catastrophically, the dam is inspected at least twice a year by the SCVWD in the presence of representatives from the California Division of Safety of Dams and the Federal Energy Regulatory Commission. Additionally, the water level in Anderson Reservoir is managed to prevent significant damage during a maximum credible earthquake. While the potential inundation resulting from catastrophic dam failure could damage property and proposed structures within the project site and pose a severe hazard to public safety, the probability of such failure is extremely remote and reservoir levels have been lowered to maintain an additional level of safety; therefore dam inundation failure is not considered a significant hazard.<sup>58</sup> **(Less Than Significant Impact)**

#### **Seiches, Tsunamis, and Mudflows**

The project site would not be at risk from damage due to sea waves or tsunamis. The project site would not be subject to inundation by seiche, tsunami, or mudflow. The site is not in an area that could be exposed to inundation from sea level rise. **(No Impact)**

#### 4.9.2.3 *Water Quality Impacts*

#### **Construction**

Construction activity could increase the amount of pollution carried in runoff from the project site. In accordance with the City of Morgan Hill Standard Conditions of Approval and the General NPDES Storm Water Permit for Construction Activities, the project would prepare a SWPPP. The plans would be submitted to the Director of Public Works and San Francisco Bay RWQCB for review and approval, prior to issuance of a building permit. The SWPPP would demonstrate how the project would eliminate or reduce non-stormwater discharges into the stormwater system, how discharges into the stormwater system would be monitored, and what BMPs would be implemented by the project to avoid water quality impacts during construction (e.g., street sweeping, fiber rolls,

<sup>57</sup> Federal Emergency Management Agency, Community Panel Number 06085C0607H, May 18, 2009, <https://msc.fema.gov>.

<sup>58</sup> Santa Clara Valley Water District. *Reservoirs*. Available at: <http://www.valleywater.org/Services/Reservoirs.aspx>. Accessed April 14, 2015.

temporary cover and/or permanent cover) and post-construction periods. In conformance with existing policies, programs, and with implementation of BMPs, the project would not result in significant impacts to water quality or water discharge requirements.

There are no waterways on or adjacent to the project site; therefore, the impacts of increased pollutant loads in stormwater runoff on local waterways should be minimal. The nearest waterway to the site is Coyote Creek, which one-quarter mile north of the site. **(Less Than Significant Impact)**

### **Post- Construction**

Stormwater from urban uses contains metals, pesticides, herbicides, and other contaminants such as oil, grease, lead, and animal waste. Runoff from the project site after development may contain oil and grease from parked vehicles, as well as sediment and chemicals (i.e., fertilizers, pesticides, etc.) from the landscaped areas or new roof areas. The project would conform to the City's Stormwater Master Plan (SWMP) to reduce the discharge of pollutants into waterways and to protect local water quality that could be impacted by stormwater and urban runoff within the corporate limits of Morgan Hill. In accordance with the SWMP, the project would implement source controls such as storm drain inlet stenciling/signage to reduce illegal dumping of pollutants and treatment control measures such as the proposed bioretention and hydromodification basin. Standard conditions relating to the design of the project would be imposed upon the approval of the project, and would implement the requirements of the SWMP.

With implementation of the SWMP, the project would not have a significant operational impact on water quality. **(Less Than Significant Impact)**

#### **4.9.2.4 Groundwater**

Groundwater depths in Morgan Hill can vary widely depending on location within the City, season, and precipitation. In the project area, shallow groundwater is estimated to occur between 25 to 50 feet below ground surface (bgs). Groundwater is deep enough that the project would not interfere with groundwater flow or expose any aquifers. The project site is located above the Santa Clara Subbasin (within the Coyote Valley recharge area). The project site is not an SCVWD-managed aquifer recharge facility, however, it does contribute to groundwater recharge of the Santa Clara Subbasin.<sup>59</sup> The project is required by City policy to provide on- or off-site retention facilities for a 25-year, 24-hour storm event. Therefore, runoff from new impervious surfaces resulting from development of the site would be retained, would contribute to aquifer recharge, and would not substantially interfere with aquifer recharge. **(Less Than Significant Impact)**

#### **4.9.3 Reasonably Foreseeable Impacts to Adjacent Parcels**

The adjacent property to the east (Future Lands of Cochrane Road, APN 728-36-012) of the project site and the adjacent parcels to the north of the site (APNs 728-39-022 and 728-38-005) are within FEMA's mapped Zone D. As stated above, Zone D is applicable to areas where there are possible but undetermined flood hazards. The City of Morgan Hill Flood Damage Prevention Ordinance

<sup>59</sup> Santa Clara Valley Water District. *Groundwater Management Plan*. 2012. Figure 2-3. Available at: <http://www.valleywater.org/Services/Groundwater.aspx>



(Chapter 18.42, Morgan Hill Municipal Code) only applies to “high risk areas” as described by FEMA (all types of Zone A’s; one percent chance of flooding in a 100-year period). Future development on the adjacent parcels would be required to comply with the City of Morgan Hill’s drainage standards and water quality control measures.

There are no reasonably foreseeable impacts related to hydrology or water quality that would result specifically from extension of the proposed project’s new roadways onto the adjacent parcels (APN 728-36-012 to the east, and APNs 728-39-022 and 728-38-005 to the north) at the locations proposed by the proposed project.

#### **4.9.4            Conclusion**

With the implementation of the City’s Standard Conditions of Approval, the proposed project would not result in significant impacts to hydrology and water quality. **(Less Than Significant Impact)**

## **4.10 LAND USE**

### **4.10.1 Setting**

The eastern parcel of the project site (APN 728-36-013) consists of undeveloped land with seasonal grasses and shrubs. The project site was formerly used for agricultural purposes and subsequently used as cattle pasture. There is a small shade shelter (formerly used for cattle) in the southeast corner of the parcel.

The western parcel (APN 728-36-014) is undeveloped and mostly consists of a former vineyard (approximately 16 acres) and seasonal grasses. The site was formerly used for agricultural purposes.

#### **Surrounding Land Uses**

The project site is bordered by approximately 20 acres of vacant land and a single-family residence to the east (Future Lands of Cochrane Road residential development, APN 728-36-012), mostly undeveloped land with an unoccupied tent currently used for sports and recreation and a parking lot (which would be a part of the future second phase of the Target Shopping Center project) to the west, Cochrane Road, an outdoor open space area and single-family residences to the south, and several greenhouses, residences and agricultural uses to the north.

#### **4.10.1.2 *General Plan Land Use and Zoning Designations***

##### **General Plan Land Use Designation**

The current General Plan land use designation for the project site is *Single-Family Medium (3-5 dwelling units per acre [du/ac])*, which allows for single-family residences at densities ranging from three to five du/ac. The site would retain its current General Plan land use designation.

##### **Zoning Districts**

The eastern parcel (APN 728-36-013) is currently within the *Single-Family Medium Density District, R-1 9,000* zoning district. The western parcel (APN 728-36-014) is currently within the *Single-Family Medium Density District, R-1 7,000* and *R-1 9,000* zoning (refer to Section 4.10.2.1, *Land Impacts from the Project* for a further description of the districts' development standards).

#### **4.10.1.3 *Santa Clara Valley Habitat Plan/Natural Communities Conservation Plan***

As previously described in Section 4.4, *Biological Resources*, the project site is located within the HCP/NCCP (Habitat Plan) study area. Under the Habitat Plan, the project site is considered a private development covered activity occurring in a private development area.

**4.10.1.4 Applicable Plans, Policies and Regulations****Morgan Hill General Plan**

Many of the policies in the City's General Plan were adopted for the purpose of avoiding or mitigating environmental effects that could result from development planned within the City. The proposed project is subject to General Plan policies, including the following, which would reduce or avoid land use impacts:

- *Incompatible Uses Policy 6c* – Evaluate potential impacts of development projects on adjacent uses in initial environmental assessments and EIRs.
- *Neighborhoods Policy 8a* – Maintain distinct boundaries between commercial uses and residential neighborhood. (This does not preclude residential uses within commercial areas as part of mixed-use projects, or in designated mixed use areas.)
- *Neighborhoods Policy 8e* – Design residential neighborhoods so they are distinct and separated from conflicting non-residential uses.

**4.10.2 Environmental Checklist and Discussion of Impacts**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1-4
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
3. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,12

**4.10.2.1 Land Use Impacts from the Project****Proposed Development**

The proposed project would include a range of style, lot sizes and elevations and would, therefore, be consistent with General Plan Policy 7i, which encourages a mix of housing types and lot sizes within residential projects with five (5) or more lots or units.

The proposed project would subdivide two parcels (APN 728-36-013 and -014) into 135 lots, allowing for the development of 135 one- to two-story single-family houses with two-<sup>60</sup> to three-car garages and private driveways. The lot sizes would range from approximately 3,550 to 13,600 square feet. The size of the homes would range from approximately 2,080 to 3,930 square feet. The maximum building height of the residences would be 30 feet. New landscaping and trees are proposed for the front yards, side yards, and backyards of the proposed residences. Approximately six acres of common open space areas are proposed for the project site. The project site is proposed to be within the *R1-9,000 PD* zoning district for the eastern parcel (APN 728-36-013) and *R1-7,000 PD* zoning for the western parcel (APN 728-36-014). The PDs would allow flexibility in development regulations to accommodate the proposed design.

### Land Use Conflicts

Land use conflicts can arise from two basic causes: 1) a new development or land use may cause impacts to persons or the physical environment in the vicinity of the project site or elsewhere; or 2) conditions on or near the project site may have impacts on persons or development introduced onto the site by the project. Both of these circumstances are aspects of land use compatibility. Potential incompatibility may arise from placing a particular development or land use at an inappropriate location, or from some aspect of the project's design or scope. Depending on the nature of the impact and its severity, land use compatibility conflicts can range from minor irritations and nuisance to potentially significant effects on human health and safety.

### General Plan Land Use Designation

The project site would be consistent with the current *Single-Family Medium (3-5 dwelling units per acre [du/ac])* General Plan land use designation, which allows for single-family residences at densities ranging from three to five du/ac. The site would retain the existing General Plan land use designation.

### Zoning Districts

Pursuant to the criteria set by Zoning Codes, Section 18.13.060 and 18.13.070, the *R1-7,000* and *R1-9,000* zoning districts are required to have minimum lot areas of 7,000 and 9,000 square feet for single-family detached units, respectively. The *R1-7,000* and *R1-9,000* zoning districts allow for corner lot sizes of 3,500 square feet and 4,200 square feet,<sup>61</sup> respectively, for duet units (two single-family attached units).

The *R1-7,000* and *R1-9,000* zoning districts require 20-foot front and rear setbacks for the first story on a residential unit, 25-foot rear and front setbacks for second stories, and 12.5-foot setback from the side property line (for buildings with a maximum height greater than 17 feet above grade). A 15-foot side yard setback is required when the side yard of a two-story residence is adjacent to a rear yard on an adjacent lot. The minimum lot width required for detached units is 60 feet for the *R1-7,000* district and 70 feet for the *R1-9,000* district; the minimum lot width allowed for duet units on

<sup>60</sup> At least one of the models (homes) will have an option to build an office or an additional garage (one-car).

<sup>61</sup> R1-9000 duet units can be a minimum of 4,200 s.f. provided that when added to the adjoining duet lot the two (2) lots in aggregate are at least 9,000 s.f. in area.

corner lots is 40 feet. The minimum lot depth allowed is 85 feet and the maximum building height allowed is 30 feet or 2.5 stories (whichever is less) for all lots. The maximum building coverage allowed for both districts is 50 percent.

The proposed PDs allow for the inclusion of *R1-4,500* zoning development standards (for less than 15 percent of the proposed lots). Based on the City's Municipal Code Section 18.13.050, for single-family detached units, the *R1-4,500* development standards require a minimum lot area of 4,500 square feet (for lots not proposed on the corner) and 5,000 square feet for corner lots. For lots less than 5,000 square feet in area, the minimum lot width required is 40 feet and for lots more than 5,000 square feet in area, the minimum lot width shall be 50 feet. The *R1-4,500* standards require a minimum front setback of 15 feet, a rear setback of 15 feet for the first story and 20 feet for the second story, a side interior setback equivalent to 10 percent of the lot width for the first floor and 15 percent of the lot width for the second floor, and a side exterior corner setback of nine feet. The maximum building height allowed for this *R1-4,500* lots is 35 feet and the maximum floor area ratio (FAR) allowed is 52 percent.

### Land Use Compatibility

As discussed in Section 3.0, *Project Description*, the PD zoning district which is proposed by the project would establish a development plan with flexibility in the development standards which the project would normally be required to comply with under the *R1-7,000* and *R1-9,000* zoning districts including reduced setbacks and lot sizes.

The PD zoning exceptions (such as reduced setbacks) proposed by the project would be consistent with existing development in the area and would not result in the project site appearing overdeveloped in comparison to the adjacent land uses. The project site is surrounded by residential developments zoned as *R1-9,000* and *R1-7,000 PD* to the south of Cochrane Road, and *R1-12,000 PD* to the north and east. The project is typical of suburban development where buildings are constructed in proximity to each other. The project would not result in the placement of an incompatible land use such as heavy industrial development. The project site is adjacent to existing residential land uses located to the south and east of the site. The project would not result in a land use conflict with properties near the project site and would not divide an established community.

### **(Less Than Significant Impact)**

Residential development on the site would result in increased ambient noise levels in the project area; however, as discussed in Section 4.11, *Noise*, the introduced noise from vehicles and ordinary residential activities would not be at levels considered significant. Construction activities would result in temporary air quality and noise impacts to the surrounding residential developments. Sections 4.3 *Air Quality* and 4.11 *Noise*, of this Initial Study, discuss these impacts in detail and provide measures to reduce these impacts to a less than significant level.

The project site is in a suburban setting predominantly characterized by one- and two-story single-family residential development. The project would increase residential development in an area that already has residential development and would not physically divide an established community.

### **(No Impact)**

### Residential Development Control System

Residential growth in Morgan Hill is ultimately controlled by the Residential Development Control System (RDCS) which was adopted for the purpose of mitigating environmental effects of growth in Morgan Hill. The RDCS generally limits development allotments to 250 residential units a year according to a point system based on a variety of factors including provision of public services, site planning, and architectural design considerations.

Given the metering effect of the RDCS, the project would not overwhelm the City's utility systems or induce unplanned residential development in the area that would result in a significant land use impact. With approval of the proposed PD, the project would not conflict with any applicable land use plan, policy, or regulation. **(Less than Significant Impact)**

#### **4.10.2.2      *Impacts to the Proposed Project***

The proposed residential developments would be placed in a neighborhood with similar residences to the south and the east of the project site. The future Target Phase II property to the west of the project site is mostly vacant with a tent used for sports and recreation and a parking lot (approximately 310 feet west of the project site). Commercial uses (Target Shopping Center) occur to the west of the site (and immediately to the west of the Target Phase II property). The project would not place new residential development adjacent to an incompatible land use such as a heavy industrial zone. Future residents of the project site would be exposed to noise from vehicles along Cochrane Road. With incorporation of measures listed in Section 4.11 *Noise*, impacts to future residents of the project site traffic noise would be reduced to a less than significant level. Noise such as truck deliveries to the Target Shopping Center would occur during the daytime hours and would not significantly impact future residents of the project site. Lighting from the parking lot on the Target Phase II property is setback at least 310 feet from the project site and would not significantly impact the proposed residences. For these reasons, future residents of the project site would not be significantly impacted by existing land uses in the project area. **(Less Than Significant Impact)**

#### **4.10.2.3      *Santa Clara Valley Habitat Plan/Natural Communities Conservation Plan***

As discussed in Section 4.4, *Biological Resources*, the project site is included within the boundaries of the adopted HCP/NCCP (Habitat Plan). The project is not expected to impact covered species nor would it conflict with the Habitat Plan objectives and provisions. The site is potential burrowing owl habitat, however, the project would implement applicable conditions on covered activities to ensure no impacts to owls, eggs, or nestlings and would pay applicable fees to offset the loss of potential habitat. **(Less Than Significant Impact)**

### **4.10.3      Reasonably Foreseeable Impacts to Adjacent Parcels**

The timing of the development of the parcel located east of the project site (APN 728-36-012) and the extension of Mission View Drive onto parcels north of the project site (APNs 728-36-022 and 728-38-005) are currently unknown.<sup>62</sup> Future development on the adjacent parcels, including the

<sup>62</sup> Although the extension of Mission View Drive to the northern adjacent parcels is planned for completion by 2030, the exact timing of development is unknown.

proposed project's roadways which would connect to the roadways of the adjacent parcels, would be designed to avoid land use conflicts to the extent feasible, and would be reviewed by the City. The Mission View Drive roadway extension would not divide an established community. There are no reasonably foreseeable land use impacts that would result from the placement of the roadway endings at the locations proposed by the project.

#### **4.10.4            Conclusion**

The proposed project would not result in significant land use impacts. With RDCS allocation and incorporation of mitigation measures related to noise and air quality, the project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The project would not divide an established community and would not result in significant land use impacts. **(Less Than Significant Impact)**

## 4.11 MINERAL RESOURCES

### 4.11.1 Setting

The State of California has protected mineral resource zones by implementing the Surface Mining and Reclamation Act of 1975.<sup>63</sup> The state's goals of the act include classifying mineral resources in California and providing local governments with the information needed to protect these resources. Local governments are responsible for designating lands that contain regionally significant mineral resources in local general plans in effort to protect these resources in areas of intensive competing land uses. Based on the City's General Plan, the project site is not comprised of known mineral resources or mineral resource production areas.

### 4.11.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2
2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,2

#### 4.11.2.1 *Impacts to Mineral Resources*

The project would not result in the loss of availability of known mineral resources of value to the City of Morgan Hill and the residents of the California. The site is not a locally-important mineral resource recovery site delineated in the City's General Plan. **(No Impact)**

### 4.11.3 Reasonably Foreseeable Impacts to Adjacent Parcels

There are no reasonably foreseeable impacts related to mineral resources that would result specifically from future planned extension of the proposed project's streets onto the adjacent eastern (APN 728-36-012) and northern (APNs 728-39-022 and 728-38-005) parcels at the locations proposed.

The project is not anticipated to result in the loss of availability of known mineral resources of value to the City of Morgan Hill and the residents of the California. The site is not a locally-important mineral resource recovery site delineated in the City's General Plan.

<sup>63</sup> California Department of Conservation, Office of Mine and Reclamation. *Surface Mining and Reclamation Act and Associated Regulations*. January 2007. Available at: <http://www.conservation.ca.gov/omr/smara/Documents/010107Note26.pdf>. Accessed April 14, 2015.



#### **4.11.4        Conclusion**

The project would not result in a significant impact from the loss of availability of a known mineral resource. **(No Impact)**

## 4.12 NOISE

The following discussion is based in part upon Noise Assessment Studies completed by *Edward L. Pack Associates, Inc.* in September 2014 for the eastern (APN 728-36-013) and western (APN 728-36-01) parcels, included as Appendix G of this Initial Study.

### 4.12.1 Setting

#### 4.12.1.1 *Noise Background*

Noise is defined as unwanted sound. Noise can be disturbing or annoying because of its pitch or loudness. Pitch refers to relative frequency of vibrations, higher pitch signals sound louder to people.

A decibel (dB) is measured based on the relative amplitude of a sound. The zero on the decibel scale marks the lowest sound level that a healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis such that each 10 decibel increase is perceived as a doubling of loudness. The California A-weighted sound level, or dBA, gives greater weight to sounds to which the human ear is most sensitive.

Sensitivity to noise increases during the evening and at night because excessive noise interferes with the ability to sleep. Twenty four (24) hour descriptors have been developed that emphasize quiet-time noise events. The Day/Night Average Sound Level, DNL or  $L_{dn}$ , is a measure of the cumulative noise exposure in a community. The 24-hour day is divided into two sub-periods for the DNL, i.e., the daytime period is from 7:00 a.m. to 10:00 p.m., and the nighttime period is from 10:00 p.m. to 7:00 a.m. The DNL includes a 10 dB addition to noise levels from 10:00 PM to 7:00 AM to account for human sensitivity to nighttime noise. The continuous-equivalent noise level ( $L_{eq}$ ) is that level of a steady noise having the same energy as a given time-varying noise. The  $L_{eq}$  is a noise descriptor used to calculate the DNL.

#### 4.12.1.2 *Applicable Noise Standards*

The City of Morgan Hill General Plan sets forth noise and land use compatibility standards to guide development, and noise goals and policies to protect citizens from the harmful and annoying effects of excessive noise. General Plan Policy 7a states that the maximum exterior noise level of 60 dBA  $L_{dn}$  shall be applied in residential areas where outdoor noise is a major consideration (e.g., backyards in single family housing developments and recreation areas in multi-family housing projects). Where the city determines that providing an  $L_{dn}$  of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an  $L_{dn}$  of 65 dBA may be permitted. Maximum instantaneous noise levels in new residential development exposed to an exterior  $L_{dn}$  of 60 dBA or greater should be limited to 50 dBA  $L_{max}$ , (e.g., trucks on busy streets, train warning whistles) in bedrooms. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA  $L_{max}$ . General Plan Policy 7a also states that the normally acceptable interior noise level for residential uses is 45 dBA  $L_{dn}$ .

Section 8.28.040 of the City of Morgan Hill Municipal Code prohibits construction activities between the hours of 8:00 PM and 7:00 AM, Monday through Friday, and between the hours of 6:00 PM and 9:00 AM on Saturday. Construction activities may not occur on Sundays or federal holidays.

#### 4.12.1.3 Existing Noise Environment

The project site is surrounded by an approximately 20-acre mostly vacant property with a single-family residence to the east (the Future Lands of Cochrane Road residential development, APN 728-36-012), mostly vacant land with a recreational tent and parking lot (as part of the future Target Shopping Center Phase II project) to the west, several greenhouses to the north, and Cochrane Road, single-family residences and an open space/recreation area to the south of Cochrane Road. Beyond the immediately adjacent lots, the project site is generally surrounded by residential developments to the east and south, commercial development and U.S. Highway 101 (0.3 to 0.4 miles from the site) to the west. The predominant noise source that currently affects the project site is local roadway vehicular traffic along Cochrane Road.

To assess the existing noise environment, noise monitoring measurements were collected at the project site (both the eastern and western parcels) in September 2014 to capture traffic noise from Cochrane Road and U.S. Highway 101. Two short-term noise measurements were collected at the site as shown on Figure 4.12-1. The measurements were made for a total period of 24 hours. The continuous equivalent-energy levels ( $L_{eqs}$ ) were collected at both measurement locations, which are used to calculate the day/night average noise levels (DNLs or  $L_{dns}$ ). Hourly maximum noise levels were collected at one of the measurement locations (ST-1) ranged from 65 to 83 dBA. The average of the hourly maximum noise level was calculated to be 75 dBA. Table 4.12-1 summarizes the results of the short-term noise measurements at the site:

Table 4.12-1: Short-Term Measurement Data (September 4-5, 2014)			
Noise Measurement Location	Daytime/Nighttime	Noise Level Range (L <sub>eq</sub> )	Day/Night Noise Level (L <sub>dn</sub> )
ST-1: 65 feet from the centerline of Cochrane Road (Eastern Parcel – APN 728-36-013)	7:00 AM – 10:00 PM	55 to 60	60
	10:00 PM – 7:00 AM	44 to 58	
ST-2: North end of the site, 1,315 feet from the centerline of Highway 101. (Western Parcel – APN 728-36-014)	7:00 AM – 10:00 PM	45 to 51	54
	10:00 PM – 7:00 AM	44 to 51	
Note: Sound levels measured in A-weighted decibels (dBA)			

Based on the evaluation of the noise measurements collected, the noise level at the nearest proposed lot line is 59 dB DNL located approximately 75 feet to 80 feet from the centerline of Cochrane Road.



NOISE MEASUREMENT LOCATIONS

FIGURE 4.12-1



The existing noise levels at the northwest corner of the project site closest to U.S. Highway 101 are 54 dBA DNL (at 1,315 feet from the U.S. Highway 101 centerline) and 53 dBA DNL (at 1,650 feet from the U.S. Highway 101 centerline), respectively.

#### **4.12.1.4      *Applicable Plans, Policies and Regulations***

##### **City of Morgan Hill General Plan**

Many of the policies in the City's General Plan were adopted for the purpose of avoiding or mitigating potential environmental effects that could result from planned development within the City. The proposed project would be subject to the following General Plan policies, as applicable:

- *Public Health and Safety Policy 7a* – New development projects shall be designed and constructed to meet acceptable exterior noise level standards, as follows:
  - The maximum exterior noise level of 60 dBA  $L_{dn}$  shall be applied in residential areas where outdoor noise is a major consideration (e.g., backyards in single family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an  $L_{dn}$  of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an  $L_{dn}$  of 65 dBA may be permitted.
  - Indoor noise levels should not exceed an  $L_{dn}$  of 45 dBA in new residential housing units.
  - Noise levels in a new residential development exposed to an exterior  $L_{dn}$  of 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA  $L_{dn}$ , recognizing that train noise is characterized by relatively few loud events.
- *Public Health and Safety Policy 7b* – The impact of a proposed development project on existing land uses should be evaluated in terms of the potential for adverse community response based on significant increase in existing noise levels, regardless of compatibility guidelines.
- *Public Health and Safety Policy 7e* – Noise level increases resulting from traffic associated with new projects shall be considered significant if: a) the noise level increase is 5 dBA  $L_{dn}$  or greater, with a future noise level of less than 60 dBA  $L_{dn}$ , or b) the noise level increase is 3 dBA  $L_{dn}$  or greater, with a future noise level of 60 dBA  $L_{dn}$  or greater.
- *Public Health and Safety Policy 7f* - Noise levels produced by stationary noise sources associated with new projects shall be considered significant if they substantially exceed ambient noise levels.
- *Public Health and Safety Policy 8b* - If noise barriers are deemed the only effective mitigation for development along major transportation corridors, an acoustical analysis shall be conducted to determine necessary dimensions.

- *Public Health and Safety Policy 8c-* The maximum height of sound walls shall be eight feet. Residential projects adjacent to the freeway shall be designed to minimize sound wall height through location of a frontage road, use of two sound walls or other applicable measures. Sound wall design and location shall be coordinated for an entire project area and shall meet Caltrans noise attenuation criteria for a projected eight-lane freeway condition. If two sound walls are used, the first shall be located immediately adjacent to the freeway right-of-way and the second shall be located as necessary to meet Caltrans noise requirements for primary outdoor areas. The minimum rear yard setback to the second wall shall be 20 feet.
- *Community Development Action 12.2* – In requiring noise impact mitigation of new and/or expanded development, the City shall promote the use of techniques less visually disturbing than sound walls-including but not limited to earthen berms and intervening placement of non-sensitive buildings.

### Morgan Hill Municipal Code

The project would be subject to the Morgan Hill Municipal Code, including the following chapters and section:

- Section 8.28.040 of the Municipal Code prohibits construction activities between the hours of 8:00 PM and 7:00 AM, Monday through Friday and between the hours of 6:00 PM and 9:00 AM on Saturday. Construction activities may not occur on Sundays or federal holidays.
- Chapter 18.48 specifies that the maximum sound generated by any use shall not exceed 75 dBA when adjacent uses are industrial or wholesale uses. When adjacent to offices, retail or sensitive industries, the sound level shall be limited to 65 dBA. When uses are adjacent or contiguous to residential, park, or institutional uses, the maximum sound level shall not exceed 60 dBA. Excluded from these standards are occasional sounds generated by the movement of railroad equipment, temporary construction activities, or warning devices.

#### 4.12.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project result in:					
1. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,27
2. Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,27
3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,27

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project result in:					
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,27
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,21
6. For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

The CEQA Guidelines state that a project would normally be considered to have a significant impact if noise levels conflict with adopted environmental standards or plans, or if noise levels generated by the project would substantially increase existing noise levels at noise-sensitive receivers on a permanent or temporary basis. CEQA does not define what noise level increase should be substantial. A three (3) dBA noise level increase is considered the minimum increase that is perceptible to the human ear. The City of Morgan Hill considers project-generated noise level increases of three (3) dBA  $L_{dn}$  or greater significant where resulting exterior noise levels would exceed the normally acceptable noise level standard. In noise environments where noise levels would remain at or below the normally acceptable noise level standard, the City considers a noise level increase (from the project) of five (5) dBA  $L_{dn}$  or greater significant.

A substantial permanent noise increase would occur if the noise level increase resulting from the projects is five dBA  $L_{dn}$  or greater in noise environments where noise levels would remain less than 60 dBA  $L_{dn}$ , or three dBA  $L_{dn}$  or greater in environments where noise levels would be 60 dBA  $L_{dn}$  or greater.

#### 4.12.2.1 *Impacts to the Proposed Project*

##### **Exterior Noise Levels**

Noise levels in private outdoor use areas are required by the City of Morgan Hill to be maintained at or below 60 dBA  $L_{dn}$  to be considered normally acceptable for residential development.

Based on future (2033) traffic conditions evaluated in the noise assessments (refer to Appendix G of this Initial Study), the noise exposure is expected to increase from 59 dB DNL (existing noise level) to 63 dB DNL at the project site's nearest lot lines, which would be 75 to 80 feet from the Cochrane Road centerline. The rear yards of these proposed lots would be exposed to exterior noise that would

exceed the City's noise and land use compatibility goal for single-family residential land uses without noise mitigation.

The future highway traffic noise levels at the northwest corner of the project site (on APN 728-36-014) would increase from 54 to 55 dB DNL (at 1,315 feet from the U.S. Highway 101 centerline). U.S. Highway 101 noise levels at the project site would only increase by one dB and, therefore, does not result in a substantial permanent increase in noise at the site.

**Impact NOI-1** The project would be exposed to exterior noise levels greater than 60 dBA  $L_{dn}$ , which exceeds the exterior noise and land use compatibility standards of the General Plan.

**Mitigation Measure:** The following mitigation measure would reduce exterior noise at residences adjacent to Cochrane Road to a less than significant level:

**MM NOI-1.1** Prior to occupancy of the residential units, six-foot high noise barriers shall be constructed along the southern property line (adjacent to Cochrane Road) of the project site to reduce projected 2033 Cochrane Road traffic noise levels to less than 60 dBA  $L_{dn}$ . Noise barriers shall shield the private outdoor use areas of the residences adjacent to Cochrane Road and the barrier heights shall be measured relative to the residential pad elevation. The barriers shall be free of cracks or gaps over the face and at the base of the barrier and shall be constructed from materials with a minimum surface weight of three pounds per square foot. The noise barriers at the project site shall be air-tight connected during construction.<sup>64</sup> The City's Building Division shall review all plans and specifications for the walls prior to the issuance of the building permit.  
(Less Than Significant Impact with Mitigation)

### Interior Noise

The City of Morgan Hill requires that interior noise levels within new residential units not exceed 45 dBA  $L_{dn}$ . The City of Morgan Hill requires new residential development exposed to an exterior  $L_{dn}$  of 60 dBA or greater to reduce the maximum instantaneous noise levels (e.g. trucks on busy streets) in bedrooms to 50 dBA  $L_{max}$ . Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA  $L_{max}$ . Using standard construction techniques, a typical building shell provides 15 dBA of attenuation with windows open and 20 to 25 dBA of attenuation with windows closed.<sup>65</sup>

With the incorporation of a forced (full-time) air mechanical ventilation system to allow windows to remain closed, interior noise levels can typically be maintained below State and City standards within

<sup>64</sup> Edward L. Pack Associates. *Noise Assessment Study for the Planned "Lantana" Single-Family Development, Barbara Property, Cochrane Road, Morgan Hill and Noise Assessment Study for the Planned Single-Family Development, Roland Property, Cochrane Road, Morgan Hill*. September 2014.

<sup>65</sup> Illingworth & Rodkin, Inc. *Butterfield-Keenan General Plan Amendment Environmental Noise Assessment, Morgan Hill, California*. June 2014.



exterior noise environments that range from 60 to 65 dBA  $L_{dn}$ , using standard construction techniques.

**Impact NOI – 2:** Interior noise levels could exceed 45 dBA  $L_{dn}$  on the site without the incorporation of a force air-mechanical ventilation system and standard construction techniques for the proposed residences. **(Significant Impact)**

**Mitigation Measures:** The implementation of the following standard construction techniques (standard measures) would avoid significant interior noise impacts to the project's residential development closest to Cochrane Road and U.S. Highway 101 to a less than significant level:

**MM NOI – 2.1:** A final detailed acoustical analysis, in conformance with California Noise Insulation Standards in Title 24, Part 2 of the California Code of regulations (California Building Code), shall be required for approval for final design of the proposed residences prior to issuance of a building permit.

The project shall incorporate sound control treatments, such as full-time/forced-air mechanical ventilation systems, standard dual-pane thermal insulated windows, and building facade treatments to meet an interior  $L_{dn}$  of 45 dBA (or 50 dBA as applicable) and an  $L_{max}$  of 50 dBA or lower in bedrooms and 55 dBA or lower in all other habitable rooms with the windows closed (at the occupant's discretion) to the satisfaction of the City Building Official. **(Less Than Significant Impact with Mitigation)**

With the implementation of MM NOI-2.1, traffic noise levels at the proposed interior living spaces near Cochrane Road would be 32 to 36 dB DNL and 29 to 30 dB DNL for interior living spaces near U.S. Highway 101 (which meets the 45 dBA  $L_{dn}$  standard). The maximum interior noise level at these locations will be 48 dBA (which meets the City's 50 dBA  $L_{max}$  standard).

### **Airport Noise**

The project site is approximately six miles north of the South County Airport (the nearest airport to the site). The project site is not located within an Airport Influence Area established by the Santa Clara County Land Use Commission<sup>66</sup>, nor is the site within two miles of a public airport or private airstrip; therefore, residents of the project site would not be exposed to excessive noise levels from air traffic. **(No Impact)**

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<sup>66</sup>Santa Clara County Airport Land Use Commission. *Comprehensive Land Use Plan, South County Airport*. November 2008. <[http://www.countyairports.org/docs/CLUP\\_E16/CLUP\\_Draft\\_E16\\_052108.pdf](http://www.countyairports.org/docs/CLUP_E16/CLUP_Draft_E16_052108.pdf)>. Accessed April 2015.

#### 4.12.2.2 *Noise Impacts from the Proposed Project*

##### **Operational Noise**

Residential development on the project site would not introduce new sources of noise that may permanently increase noise levels at noise-sensitive land uses in the site vicinity (i.e., residences). **(Less Than Significant Impact)**

##### **Traffic Noise**

Traffic along Cochrane Road dominates the noise environment in the area. The project's trip generation estimate (refer to Table 4.16-1) showed that vehicular traffic [101 AM peak hour trips and 135 PM peak hour based on the Traffic Impact Analysis (TIA) completed for this Initial Study in January 2015 by *Hexagon Transportation Consultants*, Appendix H] generated by the project will not substantially increase roadway volumes on Cochrane Road and other surrounding streets; therefore, the project will not generate a substantial increase [three (3) dBA or more] in vehicular traffic noise levels. Generally, to result in a noticeable noise increase [i.e., three (3) dBA], roadway volumes must double. Based on the change from existing traffic volumes and existing plus project traffic volumes during peak hour traffic, roadway volumes in the project area would increase by less than 15 percent, and therefore, would not double as a result of residential development on the project site. Vehicular traffic noise levels are not expected to increase measurably above existing levels as a result of the proposed project. **(Less Than Significant Impact)**

##### **Short-Term Construction Impacts**

Construction on the project site would generate noise and temporarily increase noise levels at adjacent land uses. The construction would affect the noise environment at the single-family residences to the north, south and east of the project site. Construction activities can generate high noise levels, especially during the construction of project infrastructure when heavy equipment is used. The highest maximum instantaneous noise levels generated by project construction would typically range from about 90 to 95 dBA  $L_{max}$  at a distance of 50 feet from the noise source. Typical hourly average construction generated noise levels are about 81 dBA to 88 dBA  $L_{eq}$ , measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Construction-generated noise levels drop off at a rate of about six dBA per doubling of distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction noise impacts primarily occur when construction activities take place during noise-sensitive times of the day (early morning, evening, or nighttime hours); when construction occurs in areas immediately adjoining noise sensitive land uses; or when construction durations last over extended periods of time. Where noise from construction activities exceeds 60 dBA  $L_{eq}$  and exceeds the ambient noise environment by at least five dBA  $L_{eq}$  at noise-sensitive uses in the project vicinity for a period of one year or more, the impact would be considered significant. Typically, significant noise impacts do not result when

construction noise control measures are enforced at a construction site and when the duration of the noise-generating construction period is limited to one construction season (typically one year) or less. Although the construction duration for the project would occur for more than one year, construction would occur in at least three phases over a four year period (per the City's RDCS process), beginning from the southern end of the project site and ending with construction of houses on the northern end of the site. Construction activities for the proposed project would not occur for longer than one year near any single sensitive receptor and construction hours would be limited to those allowed under the City's Municipal Code (refer to MM NOI 3.1 below).

**Impact NOI – 3:** Noise generated by site improvements, grading, infrastructure improvements, and the construction of single-family residences could result in noise levels exceeding 60 dBA  $L_{eq}$  and the ambient noise environment by five dBA  $L_{eq}$  for a period greater than one year. **(Significant Impact)**

**Mitigation Measures:** The following measures would reduce construction noise on the project site to a less than significant level:

**MM NOI – 3.1:** Under the Morgan Hill Municipal Code, allowed hours of construction are limited to avoid substantial impacts to sensitive receptors, such as nearby residents. Construction activities shall be limited to the hours between 7:00 AM to 8:00 PM on weekdays and 9:00 AM to 6:00 PM on Saturdays. There shall be no construction activities on Sundays or Federal holidays (Municipal Code Chapter 8.28.040).

**MM NOI – 3.2:** Implement construction noise control measures to limit noise disturbance to the extent feasible. Measures may include, but would not be limited to the following:

- Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate stationary noise generating equipment (e.g. rock crushers, compressors) as far as possible from adjacent residential receptors.
- Acoustically shield stationary equipment located near residential receptors with temporary noise barriers or recycled demolition materials.
- Utilize “quiet” air compressors and other stationary noise sources where technology exists.
- The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a “disturbance coordinator” who would be responsible for responding to any complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., bad

muffler, etc.) and shall require that reasonable measures be implemented to correct the problem.

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

#### **4.12.3      Reasonably Foreseeable Impacts to Adjacent Parcels**

The proposed project is designed so that when the property to the east (APN 728-36-012) is developed, the proposed project's new streets would be extended and could connect to the future residential development and is also designed so that Mission View Drive would be extended to connect to Vista De Lomas on adjacent parcels (APN 728-39-022 and APN 728-38-005) in the future. Noise analyses would be completed prior to construction which would include mitigation and standard measures to reduce or avoid noise impacts from the implementation of the future projects. The proposed standard measures for short-term construction impacts included in this Initial Study, would reduce the impacts from the construction of the proposed project on the parcel's (APN 728-36-012) future residents (if residences on the adjacent parcel are developed prior to the proposed project's construction completion). The location of the proposed project streets would not result in reasonably foreseeable significant noise impacts that could not be feasibly mitigated.

#### **4.12.4      Conclusion**

Implementation of the General Plan policies and MM NOI-1.1 and MM NOI 2.1 listed above would reduce noise impacts on the project to acceptable levels. MM NOI-3.1 would adequately reduce project construction noise impacts to less than significant levels.

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

## 4.13 POPULATION AND HOUSING

### 4.13.1 Setting

According to the U.S. Census Bureau, the City's total population was estimated to be 40,836 in 2013 and the average persons per household was an estimated 3.04 (consistent with the average household size estimated between years 2008-2012).<sup>67</sup> Based on the Association of Bay Area Governments' (ABAG's) 2013 projections, the household population (or number of residents) in the City is estimated to be 39,400 for 2015. The City's total population is projected to grow to 46,100 by 2030.<sup>68</sup>

As part of the General Plan, residential development within the City of Morgan Hill is controlled by the Residential Development Control System (RDSCS). By approving Measure C in 2004 and Measure F in 2006, Morgan Hill voters extended the City's RDSCS to 2020. RDSCS establishes a population ceiling for the City of 48,000 as of January 1, 2020.

### 4.13.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1
3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

#### 4.13.2.1 *Impacts to Population and Housing*

The project site is unoccupied and there is no existing housing on-site. Therefore, the project would not displace people or housing and would not necessitate construction of replacement housing elsewhere.

<sup>67</sup> U.S. Census Bureau. *QuickFacts: Morgan Hill (City)*. Available at: <http://quickfacts.census.gov/qfd/states/06/0649278.html>. Accessed October 21, 2014.

<sup>68</sup> Association of Bay Area Governments (ABAG). *Plan Bay Area Projections 2013*. December 2013.

The project proposes the subdivision of 135 lots to allow for the construction of 135 residences. Assuming 3.04 persons per unit,<sup>69</sup> the project would generate a maximum of 411 new residents. This is an incremental increase to the City's population currently estimated at 40,836.

As described previously, residential growth in Morgan Hill is ultimately controlled by the RDCS which was adopted for the purpose of controlling impacts from rapid growth in Morgan Hill. The RDCS generally limits 250 units to be built each year according to a competitive process involving a criteria and point system that address a variety of factors of the project including provision of public services, site planning, and architectural design considerations. Population growth from the project would result from the construction of 41 residences for 2015 to 2016 and 30 residences for 2016 to 2017. The remaining 64 residences would be constructed in 2018 and subsequent years, and would meet the City's RDCS 250-unit standard. The project proposes *Planned Development (PD)* and would not induce substantial unplanned residential development in the area.

**(Less Than Significant Impact)**

#### **4.13.3      Reasonably Foreseeable Impacts to Adjacent Parcels**

There are no reasonably foreseeable impacts related to population that would result specifically from future planned extension of the proposed project roadways at the locations proposed onto the adjacent parcels (APN 728-36-012 to the east, and APNs 728-39-022 and 728-38-005 to the north). The northern property (APN 728-36-012) is planned for residential use in the General Plan and the Mission View Drive extension on the adjacent parcels is accounted for in the City's Circulation Element Update EIR. The Mission View Drive extension to Vista De Lomas would not displace housing or people.

#### **4.13.4      Conclusion**

The development of 135 residences would not result in a substantial increase in population in the City of Morgan Hill above projected population levels nor would it induce unplanned residential development in the area. **(Less Than Significant Impact)**

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<sup>69</sup> ABAG and Metropolitan Transportation Commission. Bay Area Census: City of Morgan Hill, Santa Clara County. Average Household Size (2010). Available at: <<http://www.bayareacensus.ca.gov/cities/MorganHill.htm>>. Accessed April 7, 2015.

## 4.14 PUBLIC SERVICES

The following discussion evaluates the impacts of developing residential units of up to 135 units on the project site.

### 4.14.1 Setting

Public facilities and services are provided to the community as a whole, usually from a central location or from a defined set of nodes. The resource base for delivery of these services, including the physical service delivery mechanisms, is financed on a community-wide basis, usually from a unified or integrated financial system. The service delivery agency can be a city, county, service or special district. Usually, new development will create an incremental increase in the demand for these services; the amount of demand would vary widely, depending on both the nature of the development (residential vs. commercial, for instance) and the type of services, as well as on the specific characteristics of the development (such as senior housing vs. family housing).

A project's impact on public facility services is generally a fiscal impact. By increasing the demand for a type of service, a group of projects could cause an eventual increase in the cost of providing the service (more personnel hours to patrol an area, additional fire equipment needed to service a tall building, etc.). That is a fiscal impact, not an environmental one. CEQA does not require an analysis of fiscal impacts.

CEQA analysis is, however, required if the increased demand is of sufficient size to trigger the need for a new or expanded facility (such as a school or fire station), since the new or expanded facility would have a physical impact on the environment. CEQA requires that an EIR then identify and evaluate the physical impacts on the environment that such a facility would have. To reiterate, the impact that must be analyzed in an EIR is the impact that would result from constructing a new public facility (should one be required), not the fiscal impact of a development on the capacity of a public service system.

#### 4.14.1.1 *Existing Conditions*

##### **Fire Service and Emergency Medical Services**

The City of Morgan Hill contracts with the California Department of Forestry and Fire Protection (CalFire) for fire and emergency medical services. The City is served by three stations at the following locations: 1) El Toro Fire Station, located at 18300 Old Monterey Road (approximately 1.5 miles west of the project site), 2) Dunne Hill Fire Station, located at 2100 East Dunne Avenue (approximately two miles south of the project site), and 3) CalFire Station, 15670 Monterey Street (approximately 3.5 miles southwest of the project site). In general, the response time meets the current standard of eight minutes 95 percent of the time. The response time is typically are within one (1) to two (2) percent of this standard.<sup>70</sup>

<sup>70</sup> Dwight Good, Fire Marshal, Cal Fire. E-mail: RE: Fire Department Response Times. November 10, 2014.

## Police Service

Police service is provided to the project site by the City of Morgan Hill Police Department (MHPD). The MHPD facility is located at 16200 Vineyard Boulevard, approximately three miles southwest of the project site. The department employs 36 sworn officers.<sup>71</sup> The Police Department's goal is to respond to Priority One calls within five minutes and Priority Two calls within eight minutes.<sup>72</sup> Priority One calls are reports of a crime in progress or where an injury has occurred and Priority Two calls are reports of felonies and other major calls.

## Schools

The project site is located within the Morgan Hill Unified School District. The District has eight elementary schools, two middle schools, two comprehensive high schools, one continuation high school, and a community adult school, as well as a home schooling program. Future residents of the project site would be served by Nordstrom Elementary School (approximately two miles south of the site), Martin Murphy Middle School (located in San Jose, CA, approximately eight miles north of the site), and Ann Sobrato High School (located approximately 0.8 miles northwest of the site).<sup>73</sup>

## Parks

The City owns 70 acres of developed parkland (including the Civic Center, assessment district parks and city owned trails) and 59 acres of recreation facilities. Included within this inventory, the City maintains two community parks, five neighborhood parks, two neighborhood/school parks, and 15 mini-parks, in addition to its public trail system and open space. In addition to publicly-owned parkland, there is also a significant amount of recreational land and open space in the City that is privately owned and maintained. Under the City's General Plan Policy 18c, 50 percent of the private homeowners association (HOA) recreational acreage is counted toward meeting the General Plan goal of five acres per 1,000 population. Additionally, the General Plan allows for 10 percent of open space to be counted towards meeting this goal. In combination, these various types of public and private parks and recreational facilities in the City of Morgan Hill total about 200 acres to serve an estimated household population of 39,400. This equals the City's goal of five acres of parkland per 1,000 residents.

The City also owns and operates special use facilities for recreational purposes. These facilities include the Morgan Hill Aquatics Center, Community and Cultural Center, the Centennial Recreation Center, the 38-acre Outdoor Sports Center, and Skateboard/BMX park. Many sports leagues and teams use Morgan Hill School District facilities after school hours and on weekends. These facilities include 12 baseball/softball fields, two football fields, two tracks, and four swimming pools.

<sup>71</sup> City of Morgan Hill. *Police*. Available at: <<http://www.morgan-hill.ca.gov/index.aspx?nid=129>>. Accessed December 9, 2014.

<sup>72</sup> City of Morgan Hill. *Operating and CIP Budget, FY 13-14. Police Field Operations, Performance Measures*. 2013.

<sup>73</sup> Morgan Hill Unified School District. *School Locator*. Available at: <<http://www.schoolworksgis.com/SL/MHUSD/schoollocator.html>>. Accessed December 9, 2014.



Morgan Hill residents also utilize County and State parks. These parks include Silveira Park at the southern end of the City, the Coyote Creek park chain to the north, and Henry Coe State Park to the east.

#### **4.14.1.2 Regulatory Framework**

##### **Government Code Section 65996**

State law (Government Code Section 65996) specifies an acceptable method of offsetting a project's effect on the adequacy of school facilities as the payment of a school impact fee prior to issuance of a building permit. California Government Code Sections 65995-65998, sets forth provisions for the payment of school impact fees by new development as exclusive means of "considering and mitigating impacts on school facilities that occur or might occur as a result of any legislative or adjudicative act, or both, by any State or local agency involving, but not limited to, the planning, use, or development of real property" [§65996(a)]. The legislation goes on to say that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA [§65996(b)]. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code. The school impact fees and the school districts' methods of implementing measures specified by Government Code 65996 would mitigate project-related increases in student enrollment.

##### **Quimby Act**

The Quimby Act (California Government Code Sections 66475-66478) was approved by the California legislature to preserve open space and parkland in the State. This legislation was in response to California's increased rate of urbanization and the need to preserve open space and provide parks and recreation facilities for California's growing communities. The Quimby Act authorizes local governments to establish ordinances requiring developers of new subdivisions to dedicate parks, pay an in-lieu fee, or perform a combination of the two.

As described below, the City has adopted a Parkland Dedication Ordinance and a Park Impact Ordinance, consistent with the Quimby Act.

##### **City of Morgan Hill General Plan**

Many of the policies in the City's General Plan were adopted for the purpose of avoiding or mitigating environmental effects that could result from development planned within the City. All future development is subject to General Plan policies, including the following, which would reduce or avoid public services impacts:

- *Services Policy 16a* – Maintain high standards of siting and design in the development of City facilities (e.g., parks, City offices, fire stations).
- *Services Policy 16c* – Identify public facility and service needs, and coordinate their development to minimize costs and support achievement of community goals. (SCJAP 5.00)

- *Public Safety Policy 17a* – Ensure police and fire staffing and facilities as necessary to provide adequate public safety protection.
- *Public Safety Policy 17b* – Promote police and fire security considerations in all structures by ensuring that crime and fire prevention concepts are considered in development and design.
- *Parks and Recreation Policy 18a* – Recreational facilities and programs shall meet the needs of all Morgan Hill residents, including seniors, youth, and citizens with disabilities.
- *Parks and Recreation Policy 18e* – All facilities shall comply with State and Federal accessibility codes and standards, such as those established by the Americans with Disability Act (ADA) and California Access Code (Title 24, California Code of Regulation).
- *Parks and Recreation Policy 18h* – Parks and recreational facilities shall be designed to primarily meet community needs. Regional need may be a consideration in the planning and design of recreation facilities if there are long-term operations and maintenance benefits (such as facilities where regional tournaments may help off-set long-term operations costs) and/or meet other General Plan goals (such as economic development). Facilities that may meet regional needs shall be located and designed in such a way to minimize impact on residential neighborhoods.
- *Parks and Recreation Policy 18i* – Incorporate emergency services (fire and police) into the design review process for new parks, recreation facilities, and trails.
- *Parks and Recreation Policy 18q* – Continue to require park acquisition and development fees and/or land dedication to support the acquisition and development of parks, trails and other recreation facilities.
- *Parks and Recreation Policy 18r* – Actively pursue additional funding sources and mechanisms to support acquisition, development, and long term operations of parks, trails, facilities and recreation programs.
- *Parks and Recreation Policy 18s* – Parks and recreational facilities shall be maintained to consistent and established standards. Maintenance standards and performance shall be regularly evaluated.

**4.14.2 Environmental Checklist and Discussion of Impacts**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

**4.14.2.2 Fire Protection Impacts**

The proposed residences would be constructed in conformance with current building and fire codes, including features that will reduce potential fire hazards. Review of the project design by the CalFire and the MHPD would incorporate appropriate safety features to reduce fire hazards and criminal activity.

The project site is located in a suburban area that is currently served by CalFire and residential development on the site would not substantially increase the demand for fire protection, or require construction or expansion of fire facilities. **(Less Than Significant Impact)**

**4.14.2.3 Police Protection Impacts**

The increased population resulting from the project would increase calls for service and might require additional staffing or other resources. While the project would incrementally increase the need for police services in the project area, the project site is located in an area that is currently patrolled by the MHPD, and therefore, it is not anticipated that the project would require construction of new or expanded police facilities.

The project design, including landscaping, surveillance, access control, and lighting would be reviewed by the Morgan Hill Police Department (MHPD) to ensure that the design does not adversely affect the MHPD's ability to provide adequate service to the project site.  
**(Less Than Significant Impact)**

#### 4.14.2.4 *Schools Impacts*

Development of the 135 residential units on the site would increase the population of the project area and would, therefore, increase demand on local schools. Based on the Morgan Hill Unified School District's student generation rates for new residential units, the student generation rates are 0.246 for elementary schools, 0.067 for middle schools, and 0.152 for high schools.<sup>74</sup> Residents at the proposed development (135 single-family units) would likely attend the Nordstrom Elementary School, Martin Murphy Middle School, and Ann Sobrato High School. The proposed residences are estimated to generate approximately 33 students at Nordstrom Elementary School, nine students at Martin Murphy Middle School, and 21 students at Ann Sobrato High School. These schools have the capacity to serve the additional students generated by the project (based on the District's current enrollment capacity for each school through 2019).

State Law (Government Code Section 65996) specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is payment of a school impact fee prior to issuance of a building permit. The school impact fees implementation of measures specified in Government Code Section 65996 would be used to offset project-related increase in student enrollment. The proposed project would comply with the school impact fee requirements of the Morgan Hill Unified School District. **(Less Than Significant Impact)**

#### 4.14.2.5 *Parkland Impacts*

The project would allow for the construction of 135 single-family residential units. The average number of persons per household in Morgan Hill is 3.04 and future residential development on the site could generate approximately 411 residents. If the City's parkland goal of five acres per 1,000 residents is implemented, the residential development project would be required to provide approximately 2.1 acres of public parkland. The proposed project would provide approximately six acres of common open space, and, therefore, residents of the project site may be less inclined to seek out alternative recreational spaces that exist in the broader project area. Additionally, public parks administered by the City's Recreation and Community Services Division would be available to all residents.

The City of Morgan Hill has adopted a parkland dedication/park land in-lieu fee ordinance (Municipal Code Chapter 17.28) that requires parkland dedication or in-lieu fees for residential developments. This ordinance requires residential developers to dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. The acreage of parkland or amount of the in-lieu fee required is based upon criteria outlined in Chapter 17.28 of the City's Municipal Code. The project would require the payment of in-lieu fees to the City, which would contribute to the construction of future parks. Given that the City currently meets its parkland goal of five acres of public parkland per 1,000 residents, the open space provided by the project, and the payment of in-lieu fees for the residential development, the project would avoid significant impacts to the City's park facilities. **(Less Than Significant Impact)**

<sup>74</sup> Morgan Hill Unified School District. *Demographic Study 2013-14: Morgan Hill Unified School District*. February 2014.

#### **4.14.3      Reasonably Foreseeable Impacts to Adjacent Parcels**

There are no reasonably foreseeable impacts related to public services that would result specifically from future planned extension of the proposed project streets onto the adjacent parcels (APN 728-36-012 to the east, and APNs 728-38-022 and 728-38-005 to the north) at the locations proposed. The new street connections would provide increased access for emergency vehicles by connecting currently discontinuous street segments.

#### **4.14.4      Conclusion**

With review of the project design by the Police and Fire departments, payment of school impact fees, and compliance to the City's parkland dedication/parkland in-lieu fee ordinance, the project would not result in significant impacts to public services. **(Less Than Significant Impact)**

## 4.15 RECREATION

### 4.15.1 Setting

The City owns 70 acres of developed parkland (including the Civic Center, assessment district parks and city owned trails) and 59 acres of recreation facilities. Included within this inventory, the City maintains two community parks, five neighborhood parks, two neighborhood/school parks, and 15 mini-parks, in addition to its public trail system and open space. In addition to publicly-owned parkland, there is also a significant amount of recreational land and open space in the City that is privately owned and maintained. Under the City's General Plan Policy 18c, fifty percent of the private homeowners association (HOA) recreational acreage is counted toward meeting the General Plan goal of five acres per 1,000 population. Additionally, the General Plan allows for 10 percent of open space to be counted towards meeting this goal. In combination, these various types of public and private parks and recreational facilities in the City of Morgan Hill total about 200 acres to serve an estimated population of 40,836. This nearly equals the City's goal of five acres of parkland per 1,000 residents, or 205 acres for the estimated population.

The City also owns and operates special use facilities for recreational purposes. These facilities include the Morgan Hill Aquatics Center, Community and Cultural Center, the Centennial Recreation Center, the 38-acre Outdoor Sports Center, and Skateboard/BMX park. Many sports leagues and teams use Morgan Hill School District facilities after school hours and on weekends. These facilities include 12 baseball/softball fields, two football fields, two tracks, and four swimming pools. Morgan Hill residents also utilize County and State parks. These parks include Silveira Park at the southern end of the City, the Coyote Creek park chain to the north, and Henry Coe State Park to the east.

#### 4.15.1.1 *Applicable Plans, Policies and Regulations*

##### **City of Morgan Hill Parkland Dedication/Parkland In-lieu Fee**

The City of Morgan Hill has adopted a parkland dedication/parkland in-lieu fee ordinance (Municipal Code Chapter 17.28) that requires parkland dedication or in-lieu fees for residential developments. This ordinance requires residential developers to dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. The project would be required to comply with the City's parkland dedication or in-lieu fees for residential developments, which would avoid significant impacts to the City's park facilities.

##### **Morgan Hill General Plan**

Many of the policies in the City's General Plan were adopted for the purpose of avoiding or mitigating environmental effects that could result from development planned within the City. All future development is subject to General Plan policies, including the following, which would reduce or avoid recreation impacts:

- *Services Policy 16a* – Maintain high standards of siting and design in the development of City facilities (e.g., parks, City offices, fire stations).

- *Services Policy 16c* – Identify public facility and service needs, and coordinate their development to minimize costs and support achievement of community goals.
- *Parks and Recreation Policy 18a* – Recreational facilities and programs shall meet the needs of all Morgan Hill residents, including seniors, youth, and citizens with disabilities.
- *Parks and Recreation Policy 18e* – All facilities shall comply with State and Federal accessibility codes and standards, such as those established by the Americans with Disability Act (ADA) and California Access Code (Title 24, California Code of Regulation).
- *Parks and Recreation Policy 18h* – Parks and recreational facilities shall be designed to primarily meet community needs. Regional need may be a consideration in the planning and design of recreation facilities if there are long-term operations and maintenance benefits (such as facilities where regional tournaments may help off-set long-term operations costs) and/or meet other General Plan goals (such as economic development). Facilities that may meet regional needs shall be located and designed in such a way to minimize impact on residential neighborhoods.
- *Parks and Recreation Policy 18i* – Incorporate emergency services (fire and police) into the design review process for new parks, recreation facilities, and trails.
- *Parks and Recreation Policy 18q* – Continue to require park acquisition and development fees and/or land dedication to support the acquisition and development of parks, trails and other recreation facilities.
- *Parks and Recreation Policy 18r* – Actively pursue additional funding sources and mechanisms to support acquisition, development, and long term operations of parks, trails, facilities and recreation programs.
- *Parks and Recreation Policy 18s* – Parks and recreational facilities shall be maintained to consistent and established standards. Maintenance standards and performance shall be regularly evaluated.

#### 4.15.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
1. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
2. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

#### 4.15.2.1 *Impacts to Park and Recreational Facilities*

The proposed residential development could generate approximately 411 residents at the project site. Using the City's parkland goal of five acres per 1,000 residents, the construction of 2.1 acres of public parkland would be required for the project.

The proposed project would provide approximately six acres of common open space area. The project site would include large common open space totaling approximately 2.8 acres (with a barbecue/picnic area) that would contain a biotreatment and infiltration area and a hydromodification basin. The project site would also include six smaller open space areas, which would range from 0.06 to 1.2 acres (see Figure 3.2-1, *Site Plan*).

Given that the project includes usable common open/recreational space (including a barbecue area), residents of the project site may be less inclined to seek out alternative recreational spaces that exist in the broader project area. Additionally, the project would comply with the City's parkland dedication/parkland in-lieu fee ordinance for residential developments to offset the demand for neighborhood parkland and avoid significant impacts to the City's park facilities. The in-lieu fees (paid to the City) would contribute to the construction of future parks. Given that the City currently meets its parkland goal of five acres of public parkland per 1,000 residents, the open space provided by the project, and the payment of in-lieu fees for the residential developments, the project would not result in the physical deterioration of existing parks or recreational facilities in the City.

**(Less Than Significant Impact)**

As described in Section 4.9, *Hydrology*, the projects would be required to implement BMPs to reduce erosion during construction activities, and would be required to conform to the City's SWMP. With implementation of BMPs and the SWMP, construction and operation of the open space/recreational component of the project would not result in adverse physical effects on the environment.

**(Less Than Significant Impact)**

#### 4.15.3 Reasonably Foreseeable Impacts to Adjacent Parcels

There are no reasonably foreseeable significant impacts related to recreation that would result specifically from future planned extension of the proposed project streets onto the adjacent parcels (APN 728-36-012 to the east, and APNs 728-38-022 and 728-38-005 to the north) at the locations proposed. With implementation of best management practices to reduce erosion during construction and the SWMP, construction and operation of the open space/recreational component of the proposed project would not result in adverse physical effects on the adjacent parcels.



#### **4.15.4      Conclusion**

The project, through provision of common open space and payment of in-lieu fees, would not result in significant impacts to recreational facilities in the City of Morgan Hill. With implementation of best management practices and conformance to the City's SWMP, the project does not propose recreational facilities that would have an adverse physical effect on the environment.

**(Less Than Significant Impact)**

## 4.16 TRANSPORTATION

The following discussion is based on a Transportation Impact Analysis (TIA) completed by *Hexagon Transportation Consultants* in December 2014. The transportation impacts of the project were evaluated following the standards and methodologies set forth by the City of Morgan Hill and the Santa Clara Valley Transportation Authority (VTA). A copy of the TIA is included in Appendix H.

### 4.16.1 Setting

#### 4.16.1.1 *Roadway Network*

Regional access to the project site are provided via U.S. Highway 101. Local access to the site would be provided via Cochrane Road, Mission View Drive, Peet Road, Half Road, and Condit Road. These local roadways and U.S. Highway 101 are described below:

- *U.S. Highway 101* is a north-south highway extending northward to San Francisco and southward through Gilroy. US Highway 101 is an eight-lane freeway (three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction) north of Cochrane Road. South of Cochrane Road, the highway narrows to a six-lane freeway with no HOV lanes. Existing access to and from the project area is provided via an interchange at Cochrane Road.
- *Cochrane Road* is an east-west arterial that runs from Monterey Road east to Malaguerra Avenue, east of US Highway 101. Cochrane Road is a four-lane road between Monterey Road and Sutter Boulevard. Between Sutter Boulevard and U.S. Highway 101, Cochrane Road widens to three-lanes eastbound and two lanes westbound, then narrows back to four lanes east of U.S. Highway 101, and to two lanes east of Mission View Drive. Cochrane Road has a posted speed limit of 40 miles per hour (mph). The roadway spans along the southern project frontage and would provide direct access to the project site via a new project access point just east of Mission View Drive.
- *Mission View Drive* is a north-south two-lane undivided roadway that runs south from Cochrane Road to Half Road. In the vicinity of the project site, Mission View Drive has a posted speed limit of 40 mph. The Cochrane Road project would be required to construct a half-street extension of Mission View Drive north of Cochrane Road that would form the western project boundary and would provide direct access to the project site. Mission View Drive is planned in the City's Circulation Element to eventually by 2030 connect to Vista De Lomas to the north.
- *Peet Road* is a north-south two-lane undivided roadway that runs from Eagle View Drive to Half Road. In the vicinity of the project area, Peet Road has a posted speed limit of 30 mph.
- *Half Road* is an east-west undivided roadway that runs from Condit Road to Peet Road. Half Road has a posted speed limit of 35 mph.

- Condit Road is a two-lane north-south roadway that extends from Half Road southward to Tennant Avenue. The posted speed limit on Condit Road varies between 40 and 45 mph. The City of Morgan Hill General Plan designates Condit Road as a two-lane major collector.

#### **4.16.1.2      *Pedestrian and Bicycle Facilities***

##### **Bicycle Facilities**

As defined by the VTA, bicycle facilities include Class I bikeways (defined as bike paths off street, which is shared with pedestrians and excludes general motor vehicle traffic), Class II bikeways (defined as striped bike lanes on street), and rated streets. The latter refers to streets frequently used by bicyclists, sharing the roadway with motor vehicles, and includes city designated Class III bicycle routes. Rated streets include extreme caution (heavy traffic volumes with high traffic speeds), alert (moderate traffic volumes and speeds), and moderate (low traffic volumes and moderate to low traffic speeds).

Bicycle lanes are generally provided along the entire length of Cochrane Road. Coyote Creek Parkway is a multi-use trail located east of the project site. The 15-mile trail (approximately one-quarter mile north of the project site) adjacent to Coyote creek extends from Malaguerra Avenue in Morgan Hill to Hellyer County Park in San Jose.

##### **Pedestrian Facilities**

Pedestrian facilities in the vicinity include sidewalks that are located along the north side of Cochrane Road between U.S. Highway 101 and Mission View Drive and south side of Cochrane Road between Mission Drive and Purissima Way. A crosswalk is located on the northwest quadrant of the Cochrane Road and Mission View Drive intersection and crosswalks with pedestrian signal heads are located at the Cochrane Road and Depaul Drive intersection (a signalized intersection). Overall, the existing sidewalks provide pedestrians with safe routes to the surrounding land uses in the area.

#### **4.16.1.3      *Existing Transit***

Existing transit services to the project area are provided by the VTA and Caltrain.

##### **Santa Clara Valley Transportation Authority**

The project area is served by local buses operated by VTA. The nearest bus stops (served by Community Bus Route 16) to the project area are located near the De Paul Drive and Mission View Drive intersections with Cochrane Road (approximately 330 feet south and 740 feet west of the project site, respectively). The bus lines that operate within walking distance of the project site include the following bus routes:

Route 16 operates on Cochrane Road in the project area, between the hours of 6:30 AM and 6:00 PM. The bus runs from Burnett Avenue to the Civic Center in Morgan Hill with approximately 60-minute headways in the AM and PM peak hours.

In addition, two express buses (Express Routes 121 and 168) operate along Cochrane Road west of U.S. Highway 101. Near Express Route 121 and 168 bus stops are located adjacent to the Cochrane and Sutter Boulevard intersection approximately 0.7 miles from the site.

Express Route 121 operates on Cochrane Road on its route between the Gilroy Transit Center and the Lockheed Martin Transit Center. It operates northbound with 30-minute headways during the AM peak hours and southbound with 30 to 55 minute headways during the PM peak hours.

Express Route 168 operates on Cochrane Road on its route between the Gilroy Transit Center and the San Jose Diridon Transit Center. It operates northbound with 30-minute headways during the AM peak hours and southbound with 30-minute headways during the PM peak hours.

### **Caltrain**





Caltrain provides commuter rail service from San Francisco to Gilroy (in the north-south direction). The Morgan Hill Caltrain Station is located along the west side of Butterfield Boulevard between Dunne Avenue and Main Avenue, approximately 1.8 miles southwest of the project site. At the Morgan Hill Station, Caltrain provides service with approximately 30- to 40-minute headways during commute hours. Express Routes 121 and 168 provide service from the project area to the Morgan Hill Caltrain Station during PM commute hours.

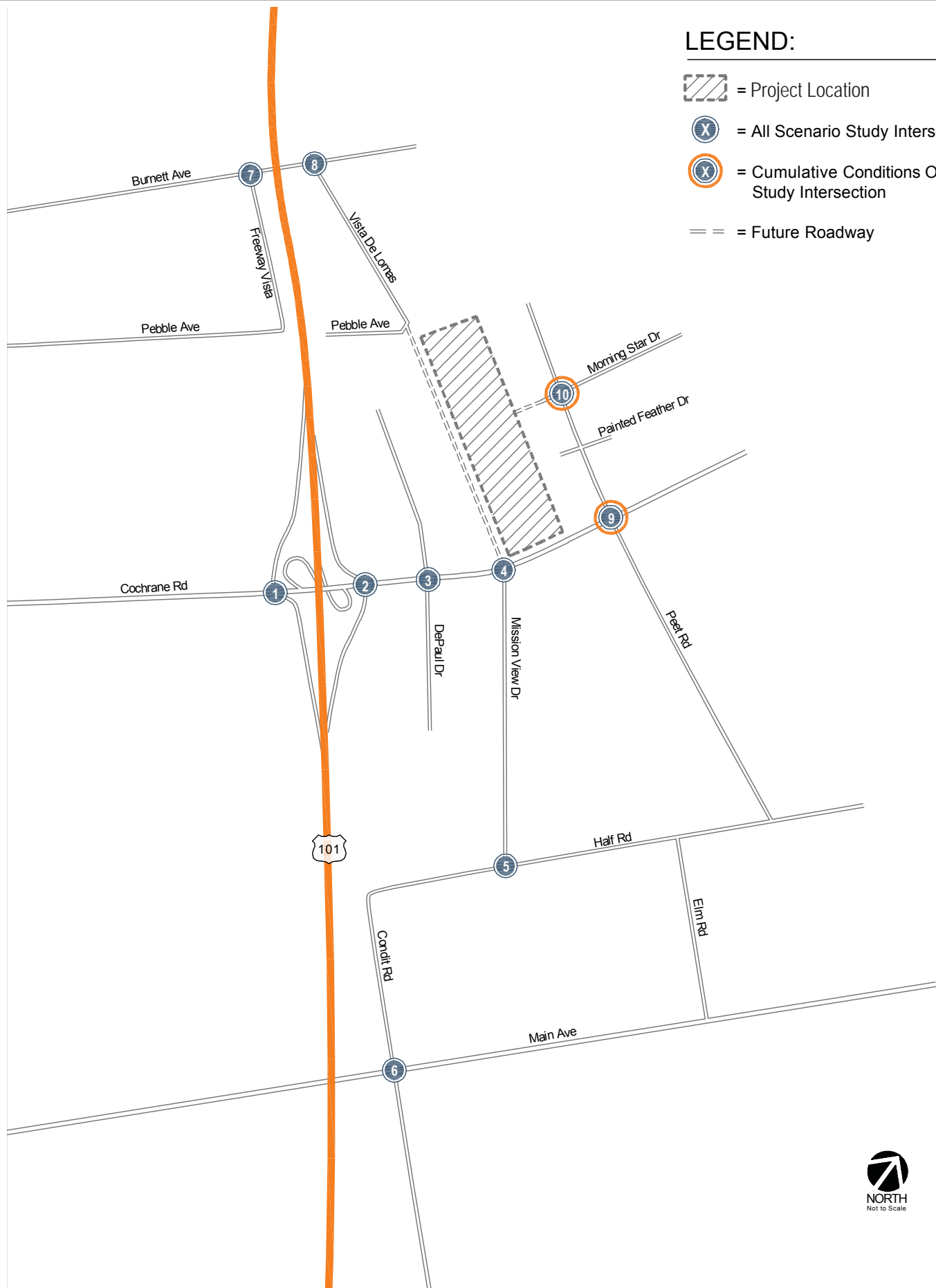
#### **4.16.1.4 Study Intersections**

The traffic impact analysis completed for the proposed project evaluates the operations of four signalized intersections and four unsignalized intersections. The study intersections were selected based upon the number of estimated project trips through each intersection (at least 10 trips per lane per hour). The two additional intersections at Peet Road (listed as intersections 9 and 10 below) are only evaluated under cumulative conditions since future site access to Peet Road would occur with the development of the adjacent Future Lands of Cochrane Road (APN 728-06-012) to the east. The intersections listed below were evaluated following the standards and methodologies set forth by the City of Morgan Hill and VTA.

In accordance with VTA's Congestion Management Program (CMP) technical guidelines, freeway segment level of service analysis should be conducted on all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to U.S. Highway 101 freeway segments in the area (the highest addition to a U.S. Highway 101 freeway segment in the vicinity is 0.8 percent during the PM peak hour, between Burnett Avenue and Cochrane Road), a freeway analysis for the CMP is not warranted. A detailed discussion of the methodologies used is included in the traffic impact analysis attached as Appendix H of this Initial Study. The study intersections for the proposed project are listed below and are shown in Figure 4.16-1.

**LEGEND:**

-  = Project Location
-  = All Scenario Study Intersection
-  = Cumulative Conditions Only Study Intersection
-  = Future Roadway



TRAFFIC STUDY INTERSECTIONS

FIGURE 4.16-1

### Study Intersections for the Proposed Project

1. U.S. Highway 101 Southbound Ramps and Cochrane Road
2. U.S. Highway 101 Northbound Ramps and Cochrane Road
3. De Paul Drive and Cochrane Road
4. Mission View Drive and Cochrane Road (unsignalized)
5. Mission View Drive and Half Road (unsignalized)
6. Condit Avenue and Main Avenue
7. Freeway Vista and Burnett Avenue (unsignalized)
8. Vista De Lomas and Burnett Avenue (unsignalized)
9. Peet Road and Cochrane Road (unsignalized)<sup>75</sup>
10. Peet Road and Morning Star Drive (unsignalized)

#### 4.16.1.5 *Level of Service Standards*

Level of Service (LOS) is a qualitative description of traffic operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D, with the exception of Downtown intersections permitted to operate at LOS F, and nine intersections and three freeway zones permitted to operate at LOS E. The study intersections of Dunne Avenue and Monterey Road and Cochrane Road and Monterey Road, as well as the Cochrane Road and Dunne Avenue freeway zones, are included in the group permitted to operate at LOS E.

LOS standards for freeway segments is based on VTA congestion management plan (CMP) guidelines. The CMP defines an acceptable level of service for freeway segments as LOS E or better.

The correlation between average delay and level of service for unsignalized intersections is shown in Table 4.16-1 and average delay and level of service for signalized intersections is shown in Table 4.16-2. The project's existing level of service standards are shown in Table 4.16-4 (Section 4.16.2 of this Initial Study).

### Unsignalized Intersections

The City of Morgan Hill level of service methodology for unsignalized intersections is the 2000 Highway Capacity Manual (HCM) method, applied using TRAFFIX software. This method is applicable for both two-way and all-way stop-controlled intersections. Unsignalized (stop-controlled) intersection operations are evaluated on the basis of average control delay time for all vehicles on the stop-controlled approaches. For the purpose of reporting level of service for one- and two-way stop-controlled intersections, the delay and corresponding level of service for the stop-controlled minor street approach with the highest delay is reported. For all-way stop-controlled intersections, the reported average delay and corresponding level of service is the average for all

<sup>75</sup> The intersections at Peet Road (listed under 9 and 10) are only considered under cumulative conditions due to the future connection to Peet Road with development of the adjacent property (Future Lands of Cochrane, APN 728-36-012).

approaches at the intersection. The City uses a minimum acceptable level of service standard of LOS D for unsignalized intersections.

**Table 4.16-1: Unsignalized Level of Service Definitions**

<b>Level of Service</b>	<b>Description</b>	<b>Average Control Delay Per Vehicle (seconds)</b>
A	Operations with very low delays occurring with favorable progression.	Up to 10.0
B	Operations with low delays occurring with good progression.	10.1 to 15.1
C	Operations with average delays resulting from fair progression	15.1 to 25.0
D	Operation with longer delays due to a combination of unfavorable progression and high V/C ratios.	25.1 to 35.0
E	Operation with high delay values indicating poor progression and high V/C ratios. This is considered to be the limited of acceptable delay.	35.1 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation and poor progression.	Greater than 50.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000)

### Signal Warrants

The level of service analysis at unsignalized intersections is supplemented with an assessment of the need for signalization of the intersection. The need for signalization of unsignalized intersections is assessed based on the Peak Hour Volume Warrant described in the California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD). This method makes no evaluation of intersection level of service, but simply provides an indication of whether vehicular peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal.

**Table 4.16-2: Signalized Intersection Level of Service Definitions**

<b>Level of Service</b>	<b>Description of Operations</b>	<b>Average Control Delay* (seconds/vehicle)</b>
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this	20.1 to 35.0

**Table 4.16-2: Signalized Intersection Level of Service Definitions**

<b>Level of Service</b>	<b>Description of Operations</b>	<b>Average Control Delay* (seconds/vehicle)</b>
	level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	Greater than 80.0
Note: * Average Control Delay includes the time for initial deceleration delay, queue move-up time, stopped delay, and final acceleration. Source: Transportation Research Board. <i>2000 Highway Capacity Manual</i> . 2000. Pages 10-16.		

#### **4.16.1.6      *Applicable Plans, Policies and Regulations***

##### **Morgan Hill General Plan**

Various policies in the City's General Plan have been adopted for the purpose of avoiding or mitigating transportation impacts resulting from planned development within the City. The proposed project would be in conformance with adopted City plans and policies, including those listed below:

- *Circulation Policy 1d* - Ensure compatibility of the transportation system with existing and proposed land uses, promoting environmental objectives such as safe and uncongested neighborhoods, a pedestrian-friendly vibrant downtown that emphasizes non-auto transportation modes, energy conservation, reduction of air and noise pollution, and the integrity of scenic and/or hillside areas.
- *Circulation Policy 2e* - Integrate planning for land use and transportation development by insuring that the timing, amount, and location of urban development is consistent with the development of the transportation system capacity, and that land uses are designed to promote use of appropriate transportation modes in a manner that supports smart growth and sustainable communities principles.



- *Circulation Policy 3b* - Avoid creating incomplete public improvements that create public safety hazards.
- *Circulation Policy 3c* - Require developers to provide for the construction of their portions of arterial and collector streets at the time of development.
- *Circulation Policy 3k* - Require development that occurs along arterial streets to obtain access through a local street or major entrance and not through curb cuts directly onto the arterial street wherever possible.
- *Circulation Policy 7m* - Where safety permits, improve connectivity by requiring pedestrian and bicycle public access from a cul-de-sac to an adjacent public amenity, such as a park or school, or from a cul-de-sac to an adjacent street.
- *Circulation Policy 8a* - Ensure adequate pedestrian access in all developments, with special emphasis on pedestrian connections in the downtown area, in shopping areas and major work centers, including sidewalks in industrial areas in accordance with the Trails and Natural Resources Master Plan.
- *Circulation Policy 8f* - All trails and pedestrian accesses shall comply with State and Federal accessibility codes and standards, such as those established by the Americans with Disability Act (ADA) and California Access Code (Title 24, California Code of Regulation).
- *Circulation Policy 8g* - Where feasible, implement the trails and pedestrian system concurrent with adjacent developments.

#### 4.16.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,3,28

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,28
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1,21
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
5. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,28

#### 4.16.2.1 *Thresholds of Significance*

All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D, with the exception of Downtown intersections permitted to operate at LOS F, and nine intersections and three freeway zones permitted to operate at LOS E. According to the City's LOS guidelines, a development is said to create a significant adverse impact on traffic conditions at a signalized intersection if for either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or LOS E as identified above under existing conditions to an unacceptable LOS E or LOS F under project conditions, or
2. The level of service at the intersection is an unacceptable level of LOS E or LOS F as identified above under existing conditions and the addition of project trips causes the average critical delay to increase by four or more seconds and the volume-to-capacity ratio (V/C) to increase by 0.01.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

Unsignalized intersections within the City have a minimum operating level of LOS D. According to the City's LOS guidelines, a development is said to have a significant adverse impact on traffic conditions at an unsignalized intersection if for either peak hour the addition of project traffic causes the worst approach delay to LOS E or F and the traffic volumes at the intersections are sufficiently high to satisfy the peak hour volume warrant.

A project is said to create a significant adverse impact on traffic conditions on a CMP freeway segment if for either peak hour:

1. The level of service on a freeway segment is an unacceptable LOS F under no project conditions, and the number of project trips on that segment constitutes at least one percent of capacity on that segment.
2. The level of service on the freeway segment degrades from an acceptable LOS E or better under existing conditions to an unacceptable LOS F under project conditions.

A significant impact by CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore freeway conditions to LOS E or better.

#### **4.16.2.2      *Transportation Network under Existing plus Project Conditions***

This traffic analysis assumes that the roadway network and intersection configurations under existing plus project conditions would be the same as described in Section 4.16.1.1, *Roadway Network* with the exception of the following improvements that would be constructed as part of the project:

##### **Widening of Cochrane Road along the Project Frontage**

The existing curb line along the project frontage from Mission View Drive to the southern project boundary would be reconstructed to align with the existing curb lines along Cochrane Road. The improvements would allow for future additional travel lanes along Cochrane Road.

##### **Mission View Drive Extension**

As part of the City's Circulation Element of the General Plan, Mission View Drive is planned to by 2030 to connect to Vista De Lomas to the north. A portion of the planned Mission View Drive extension would be constructed as part of the proposed project. The project improvements would include the construction of half street improvements of the four-lane extension of Mission View Drive, ending on an interim basis at the northern property line. A traffic signal would be installed at the Mission View Drive and Cochrane Road intersection as a part of the Mission View Drive extension project improvements. The following intersection lane configurations were assumed at the Mission View Drive and Cochrane Road intersection:

- The north approach of the Mission View Drive and Cochrane Road intersection would provide one left-turn lane, one through lane, and one right-turn lane; the east approach would have one left-turn lane, one through lane, and one shared through and right-turn lane; the south approach would have two left-turn lanes and one shared through and right-turn lane;

and the west approach would have one left-turn lane, one through lane, and one right-turn lane.

#### 4.16.2.3 *Project Trip Generation, Distribution, and Assignment*

The traffic generated by the project and the roadways upon which it would travel are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. The project trip generation estimates the volume of traffic entering and exiting the site for the AM and PM peak hours. The trip distribution estimates the directions to and from which the project trips would travel. The trip assignment assigns the project-generated traffic to specific streets and intersections in the study area. These procedures are discussed below.

### **Trip Generation**

The project's trip generation was estimated using the trip generation rates published in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition, 2012. The proposed project consists of the development of 135 single-family units.

Based on the ITE trip generation rates and reductions for pass-by trips, it is estimated that the proposed project would generate 1,285 daily trips, with 101 trips (25 inbound and 76 outbound) occurring during the AM peak hour and 135 trips (85 inbound and 50 outbound) occurring during the PM peak hour. The project's trip generation estimates are presented in Table 4.16-3.

<b>Table 4.16-3: Project Trip Generation Estimates</b>											
<b>Land Use</b>	<b>Number of Units</b>	<b>Daily Rate</b>	<b>Daily Trips</b>	<b>AM</b>				<b>PM</b>			
				<b>Pk Hr Rate</b>	<b>In</b>	<b>Out</b>	<b>Total</b>	<b>Pk Hr Rate</b>	<b>In</b>	<b>Out</b>	<b>Total</b>
Single-Family Residences	135	9.52	<b>1,285</b>	0.75	25	76	<b>101</b>	1.00	85	50	<b>135</b>
<sup>1</sup> Per the ITE Trip Generation Manual Ninth Edition (2012), Single-Family Detached Housing (210) was used for trip generation estimates.											

### **Trip Distribution**

The trip distribution pattern for project-generated traffic was estimated based on existing travel patterns on the surrounding roadway system and on the locations of complementary land uses.

### **Trip Assignment**

The peak-hour trips associated with the proposed project were added to the transportation network in accordance with the distribution pattern discussed above.

#### 4.16.2.4 Existing Plus Project Intersection Levels of Service

The results of the intersection level of service analysis under existing plus project conditions are summarized in Table 4.16-4. The results show that, measured against the City's LOS standards, all study intersections are projected to operate at acceptable levels of service under existing plus project conditions during each of the peak hours analyzed. Therefore, no study intersections would be significantly impacted by the project according to the City's impact criteria.

**(Less Than Significant Impact)**

<b>Table 4.16-4: Existing Plus Project Intersection Levels of Service</b>							
<b>Intersection</b>	<b>Peak Hour</b>	<b>Existing</b>		<b>Existing Plus Project Conditions</b>			
		<b>Delay<sup>1</sup></b>	<b>LOS<sup>2</sup></b>	<b>Delay<sup>1</sup></b>	<b>LOS<sup>2</sup></b>	<b>Δ in Crit. Delay</b>	<b>Δ in Crit. V/C</b>
1. U.S. Highway 101 Southbound Ramps and Cochrane Road (Signalized)	AM PM	12.0 19.4	B B	12.1 20.3	B C	0.1 1.5	0.009 0.038
2. U.S. Highway 101 Northbound Ramps and Cochrane Road (Signalized)	AM PM	9.5 10.4	A B	9.4 10.3	A B	0.1 0.0	0.031 0.026
3. Depaul Drive and Cochrane Road (Signalized)	AM PM	17.3 17.7	B B	17.3 18.3	B B	0.0 0.2	0.021 0.015
4. Mission View and Cochrane Road (All-Way Stop) <sup>3</sup>	AM PM	24.8 12.6	C B	17.9 13.1	B <sup>3</sup> B	N/A N/A	N/A N/A
5. Mission View Drive and Half Road (One-Way Stop)	AM PM	12.5 16.7	B C	12.7 16.9	B C	N/A N/A	N/A N/A
6. Condit Road and Main Avenue (Signalized)	AM PM	26.5 24.3	C C	26.7 24.4	C C	0.4 0.1	0.012 0.003
7. Freeway Vista and Burnett Avenue (One-Way Stop)	AM PM	9.4 8.7	A A	9.4 8.7	A A	N/A N/A	N/A N/A
8. Vista De Lomas and Burnett Avenue	AM PM	8.6 8.6	A A	8.6 8.6	A A	N/A N/A	N/A N/A
<sup>1</sup> The reported delay and corresponding level of service for signalized and all-way stop-controlled intersections represents the average delay for all approaches at the intersection. The reported delay and corresponding level of service for one- and two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay. <sup>2</sup> LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package. <sup>3</sup> All-Way Stop control under existing and cumulative conditions. Existing plus project and cumulative plus project conditions assumes the installation of a traffic signal at Mission View Drive and Cochrane Road.							

**4.16.2.5 Freeway Segment Level of Service Summary**

Based on the CMP technical guidelines, freeway segment level of service analysis is required on all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to any freeway segments in the area, freeway analysis for the CMP is not warranted. The percentage of traffic projected to be added by the project to surrounding freeway segments is summarized in Table 4.16-5. **(Less Than Significant Impact)**

Table 4.16-5: Freeway Segment Level of Service Summary							
					Existing Plus Project	Project Trips	
		Freeway Segment			Mixed-Flow Lane	Mixed-Flow Lane	
Freeway	NB/ SB	From	To	Peak Hour	Capacity (vph)	Vol.	Percent Increase
U.S. Highway 101	NB	San Martin Avenue	Tennant Avenue	AM PM	6,900 6,900	3 9	0.0% 0.1%
		Tennant Avenue	East Dunne Avenue	AM PM	6,900 6,900	3 9	0.0% 0.1%
		East Dunne Avenue	Cochrane Road	AM PM	6,900 6,900	3 9	0.0% 0.1%
		Cochrane Road	Burnett Avenue (Lane Drop)	AM PM	6,900 6,900	42 31	0.6% 0.4%
U.S. Highway 101	SB	Burnett Avenue (Lane Drop)	Cochrane Road	AM PM	6,900 6,900	16 55	0.2% 0.8%
		Cochrane Road	East Dunne Avenue	AM PM	6,900 6,900	8 5	0.1% 0.1%
		East Dunne Avenue	Tennant Avenue	AM PM	6,900 6,900	8 5	0.1% 0.1%
		Tennant Avenue	San Martin Avenue	AM PM	6,900 6,900	8 5	0.1% 0.1%
Notes NB = Northbound SB = Southbound Vph = Vehicle miles per hour Vol = Volumes							

#### **4.16.2.6      *Site Access and Circulation***

##### **Site Access**

There would be a total of four main access points that would serve the project site: three access points would be located along a new easterly half-street extension of Mission View Drive and one along Cochrane Road.

Future project access to the project site via Peet Road would occur with the development of the property (Future Lands of Cochrane Road) east of the project site; Peet Road would provide connection to the project site via Morning Star Drive and Eagle View Drive.

Based on the projected traffic volumes, the project access points would adequately serve projected traffic demands and the intersections would operate satisfactorily without traffic signals. Each access point approach to Mission View Drive would be stop-controlled. The design of the access roadways and intersections with Mission View Drive and Cochrane Road would adhere to City of Morgan Hill design guidelines and standards. The final design would be approved by the City of Morgan Hill.

##### **On-Site Circulation**

The project design allows for continuous traffic circulation through the project site with the exception of the termination of on-site roadways along the eastern boundary of the project site and private drives that provide exclusive access to residential units. Each of these roadways, however, would extend through adjacent property (Future Lands of Cochrane Road) and provide access to Peet Road in the future. Appropriate signage would be placed at roadways that serve as private drives/courts providing access to only clustered units with no through access.

The project's street widths would be sufficient to allow for the circulation of large design vehicles such as garbage trucks and fire trucks. Emergency vehicle access and circulation within the project site would be adequate and every proposed residential unit within the project development would be accessible.

The project would have sidewalks on both sides of the site's main roadways. Pedestrian connections would be provided at each of the four intersections where on-site roadways intersect existing streets and the future roadway extension points. The proposed pedestrian walkways along the project site's frontages would provide a connection to other existing pedestrian facilities (sidewalks, crosswalks, bus stops, etc.) along Cochrane Road.

The project site would be designed in accordance with City's design standards and would provide adequate width and turn-radii at and along all intersections/streets to allow for two-way circulation and adequate circulation of larger vehicles (such as emergency trucks, garbage truck, and delivery trucks) throughout the project site. In accordance with the City's standards and requirements, the proposed site access points and on-site roadway layout would be adequate to accommodate circulation of both passenger and larger vehicles. **(Less Than Significant Impact)**

#### **4.16.2.7      *Impacts to Transit Service and Pedestrian/Bicycle Facilities***

The project site would be served by one of four bus lines that serve the City of Morgan Hill. A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the project equates to no more than four transit riders during the AM and PM peak hours. The transit ridership demands of the proposed project would not necessitate the enhancement of the existing transit facilities.

Sidewalks are provided along the north side of Cochrane Road from U.S. Highway 101 to Mission View Drive and along a short segment immediately east of Peet Road. The project would provide new sidewalks along its entire frontages including the north side of Cochrane Road.

Bicycle lanes are generally provided along the entire length of Cochrane Road. However, Class II bicycle lane striping is missing along segments of Cochrane Road where adjacent properties are undeveloped including the project frontage. Based on the 2008 City of Morgan Hill Bikeways Master Plan Update, Class II bicycle lanes are planned on the following roadways:

- Mission View Drive, between Half Road and Peebles Avenue
- Peet Road, between Main Avenue and Cochrane Road
- DePaul Drive, between Middle Ave and Cochrane Road

In addition, the following bicycle facilities also are proposed in the vicinity:

- Class I bicycle path along the U.S. Highway 101
- Class I bicycle path, Coyote Creek Connection between Burnett Avenue and Malaguerra Avenue
- Class III bicycle route along Vista De Lamas between Peebles Avenue and Burnett Avenue
- Class III bicycle route along Peet Road between Cochrane road and Eagle Drive

The proposed project would include a Class I bicycle path off of Mission View Drive (adjacent to the open space areas located on the western end of the site), which would extend from the southern end (near Cochrane Road) to the northern end of the site. The project frontage improvements along Cochrane Road would be designed to accommodate bicycle lanes. It is expected that bicycle trips would comprise no more than one percent of the total project-generated trips. Therefore, the project could generate no more than one new bicycle trip during each of the peak hours. The existing bicycle facilities in the vicinity of the project site and the proposed Class I bicycle path would accommodate the demand (for bicycle facilities) generated by the proposed project.

**(Less Than Significant Impact)**

#### **4.16.2.8      *Cumulative Conditions***

This section describes the intersection and roadway improvements expected to be in place under cumulative conditions, cumulative traffic volumes, and the resulting traffic conditions. The following City-approved or pending projects which would add traffic to the study intersections, are considered in this cumulative conditions scenario.



<b>Table 4.16-6: City of Morgan Hill Pending and Approved Projects Near the Site Cumulative Conditions</b>		
<b>Name of Project</b>	<b>Location</b>	<b>Project Description</b>
Target Phase II Project (adjacent to and to the west of the project site)	Immediately adjacent to and to the west of the project site; located near the Cochrane Road and Depaul Drive intersection	340,000 square feet of shopping center space, retail stores, 12 fueling positions of gas service station and movie theatre.
Cochrane Village	South side of Cochrane Road between Butterfield Boulevard and Sutter Boulevard	105,000 square feet of retail/commercial space, 60,000 square feet of medical office space, 10,000 square feet of ancillary retail space, 10,000 square feet of tire store, 6,500 square feet of quality restaurant space, and 4,800 square feet of fast food restaurant space
Future Lands of Cochrane Road Residential (application is not currently on file with the City)	Immediately adjacent and east of the project site on Cochrane Road	58-unit single-family residential project
San Sebastian Residential	Located on Peet Road between Hill Road and Cochrane Road	244-unit single-family residential project
Source: Morgan Hill Residential Project Status Report, February 2014		

### **Cumulative Transportation Network**

Several new roadways are planned under cumulative conditions to provide for enhanced connectivity and circulation throughout the City. The following roadway improvements within the project area are planned and assumed completed under cumulative conditions:

- Extension of Mission View Drive between Vista De Lomas and Cochrane Road.
- Future project access to Peet Road via Morning Star Drive and potentially Eagle View Drive.

### **Cumulative Conditions Intersection Level of Service**

The level of service results under cumulative without and with project conditions are summarized in Table 4.16-7. The results show that the unsignalized Mission View Drive and Cochrane Road intersection would operate at unacceptable levels under cumulative conditions (without implementation of the proposed project) during both peak hours based on the City's level of service standards. Peak-hour traffic signal warrant checks indicate that the traffic volumes at the Mission View Drive and Cochrane Road intersection meet thresholds that warrant signalization under cumulative conditions (without implementation of the proposed project). In accordance with the City's requirements, the project would install a traffic signal at the Mission View Drive and

Cochrane Road intersection as a part of the Mission View Drive extension improvements (which would not be based on the project's contribution to the intersection LOS).

The Mission View Drive and Cochrane Road intersection is projected to operate at C or better conditions under each of the peak hours with signalization under cumulative plus project conditions.

The remaining study intersections would operate at acceptable levels under both cumulative conditions (without the implementation of the project) and cumulative plus project conditions (refer to Table 4.16-6 below).

**Table 4.16-7: Cumulative Intersection Levels of Service**

Intersection	Peak Hour	Delay <sup>1</sup>	LOS	Delay <sup>1</sup>	LOS	Δ in Crit. Delay	Δ in Crit. V/C
	Cumulative			Cumulative Plus Project			
1. US 101 Southbound Ramps and Cochrane Road (Signalized)	AM PM	13.4 24.8	B C	13.5 27.4	B C	0.1 4.4	0.009 0.036
2. US 101 Northbound Ramps and Cochrane Road (Signalized)	AM PM	10.1 14.0	B B	10.0 14.1	B B	0.4 0.2	0.032 0.019
3. Depaul Drive and Cochrane Road (Signalized)	AM PM	18.1 20.3	B C	18.1 20.7	B C	0.0 0.5	0.014 0.010
4. Mission View Drive and Cochrane Road (All-Way Stop) <sup>2</sup>	AM PM	<b>98.8</b> <b>113.4</b>	<b>F</b> <b>F</b>	21.2 19.2	C B	N/A N/A	N/A N/A
5. Mission View Drive and Half Road (One-Way Stop)	AM PM	15.2 18.4	C C	15.9 18.6	C C	N/A N/A	N/A N/A
6. Condit Road and Main Avenue (Signalized)	AM PM	27.7 28.5	C C	28.2 28.6	C C	0.6 0.1	0.012 0.003
7. Freeway Vista and Burnett Avenue (One-Way Stop)	AM PM	9.4 8.7	A A	9.4 8.7	A A	N/A N/A	N/A N/A
8. Vista De Lomas and Burnett Avenue (One-Way Stop)	AM PM	8.6 8.6	A A	8.7 8.6	A A	N/A N/A	N/A N/A
9. Peet Road and Cochrane Road (Two-Way Stop) <sup>2</sup>	AM PM	12.9 12.8	B B	12.9 12.9	B B	N/A N/A	N/A N/A
10. Peet Road and Morning Star Drive (All-Way Stop) <sup>3</sup>	AM PM	7.5 7.4	A A	7.5 7.5	A A	N/A N/A	N/A N/A
<sup>1</sup> The reported delay and corresponding level of service for signalized and all-way stop-controlled intersections represents the average delay for all approaches at the intersection. The reported delay and corresponding level of service for one- and two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay. <sup>2</sup> Cumulative plus project scenario includes project installation of signal at the intersection. <sup>3</sup> Intersection are studied under cumulative conditions only due to the connection to Peet Road with development of adjacent properties. <b>Bold indicates unacceptable LOS.</b>							

As described above, the project would install a traffic signal at the Mission View Drive and Cochrane Road intersection (as a part of the Mission View Drive extension improvements) in accordance with the City's design standards and the Public Works Department, which would reduce delays and traffic congestion to an acceptable LOS under cumulative conditions. **(Less Than Significant Impact)**

#### 4.16.2.9 *Other Transportation Impacts*

##### **Air Traffic Patterns and Emergency Access**

The project site is approximately six miles north of the South County Airport (the nearest airport to the site). The project site is not located within an Airport Influence Area established by the Santa Clara County Land Use Commission,<sup>76</sup> therefore, residents of the project site would not be exposed to safety hazards resulting from air traffic, nor would development of the site with housing as proposed lead to a change in air traffic patterns. **(No Impact)**

The proposed project would include emergency vehicle access via Mission View Drive and would not result in inadequate emergency access. **(No Impact)**

#### 4.16.3 **Reasonably Foreseeable Potential Impacts to Adjacent Parcels**

The proposed project is designed so that when the property to the east (APN 728-36-012, Future Lands of Cochrane) is developed, the proposed project's new streets would be extended and could connect to the future development (APN 728-36-012). Future development of the parcel to the east would result in two additional access points to the project site (via Morning Star Drive and Painted Feather Lane). The TIA completed for this Initial Study included the included the future development of the Future Lands of Cochrane Road residences (APN 728-36-012) in the cumulative conditions scenario. With the installation of traffic signal at Mission View Drive and Cochrane Road, development of the Future Lands of Cochrane would not result in a significant impact.

The future extension of Mission View Drive to Vista De Lomas (onto the adjacent parcels APN 728-39-022 and APN 728-38-005 to the north of the project site) which is accounted for in the City's General Plan Circulation Element Update EIR, would result in an additional access point to the project site.

#### 4.16.4 **Conclusion**

The intersection of Mission View Drive and Cochrane Road is projected to operate at LOS F during the AM and PM peak hours under cumulative conditions. As a part of the project's site access improvements, a traffic signal would be installed at the Mission View Drive and Cochrane Road intersection which would operate at an acceptable LOS C or better. **(Less Than Significant Impact)**

Based on the results from the traffic analysis, the project would not conflict with an applicable plan, ordinance or policy or congestion management program regarding the effectiveness for the performance of the circulation system, of the level of service standards, or of public transit, bicycle

<sup>76</sup>Santa Clara County Airport Land Use Commission. *Comprehensive Land Use Plan, South County Airport*. November 2008. <[http://www.countyairports.org/docs/CLUP\\_E16/CLUP\\_Draft\\_E16\\_052108.pdf](http://www.countyairports.org/docs/CLUP_E16/CLUP_Draft_E16_052108.pdf)>. Accessed April 2014.

or pedestrian facilities. The project would not substantially increase hazards due to a design feature. **(Less Than Significant Impact)**

The project would not result in a change in air traffic patterns (due to the distance of the site to the nearest airport) or inadequate emergency vehicle access impacts (since the project design includes emergency vehicle access in accordance with the City's standards). **(No Impact)**

## **4.17 UTILITIES AND SERVICE SYSTEMS**

### **4.17.1 Setting**

#### **4.17.1.1 *Water Service***

The City of Morgan Hill provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's water system facilities include 14 groundwater wells, 10 potable water storage tanks, 10 booster stations, and over 160 miles of pressured pipes ranging from two to 14 inches in diameter. The City's water distribution system meets the needs of existing customers. The City has planned and constructed water projects in conjunction with new street construction in anticipation of future growth and water needs.

#### **4.17.1.2 *Sewer System and Wastewater Treatment***

The South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Plant provides service to the cities of Morgan Hill and Gilroy. The treatment plant has capacity to treat an average dry weather flow (ADWF) of 8.5 million gallons per day (mgd) and is currently permitted by the California Regional Water Quality Control Board, Central Coast Region to treat up to 8.5 mgd.<sup>77</sup> Both the cities of Gilroy and Morgan Hill have growth control systems in place which limit unexpected increases in sewage generation. The ADWF for combined flows from Morgan Hill and Gilroy was approximately 6.8 mgd in 2010 (with 2.9 mgd generated by Morgan Hill). Based on combined population projections for both cities, the current capacity of 8.5 mgd is anticipated to be reached in mid-2019.<sup>78</sup> Morgan Hill is allocated 42 percent of the current 8.5 mgd treatment capacity, or 3.6 mgd, leaving approximately 0.7 mgd<sup>79</sup> of remaining capacity allocation for future growth under the current General Plan. For comparison, Gilroy in 2010 generated 3.8 mgd, had a treatment capacity allocation of 4.9 mgd, or 58 percent of the 8.5 mgd treatment capacity, and 1.0 mgd of remaining capacity allocation for future growth.

#### **4.17.1.3 *Solid Waste***

Recology South Valley provides solid waste and recycling services to the businesses and residents of the cities of Morgan Hill and Gilroy. Recology South Valley has contracted through 2017 with the Salinas Valley Solid Waste Authority to dispose of municipal solid waste at Johnson Canyon Sanitary Landfill. Johnson Canyon Sanitary Landfill is anticipated to reach capacity in 2040.<sup>80</sup>

<sup>77</sup> California Regional Water Quality Control Board. *Waste Discharge Requirements, South County Regional Wastewater Authority Wastewater Treatment and Reclamation Facility, Santa Clara County (NPDES Permit No. CA0049964) – Order No. R3-2010-0009*. April 2010.

<sup>78</sup> South County Regional Wastewater Authority. *Cities of Gilroy and Morgan Hill: Wastewater Flow Projections*. August 2011.

<sup>79</sup> 3.6 mgd allocation - 2.9 mgd generation (current wastewater generation by the City) = 0.7 mgd (remaining wastewater allowed to be generated by the City for future growth under the current General Plan)

<sup>80</sup> Phil Couchee, General Manager, Recology South Valley. February 3, 2010.

#### **4.17.1.4 Stormwater Drainage**

The City of Morgan Hill is divided into several hydrologically distinct drainage areas. Each drainage area has a system of conveyance facilities, pumps, and detention basins to collect and dispose the runoff. The stormwater runoff from these areas is collected and ultimately discharged into creeks that flow through the City and are tributary to either Monterey Bay or San Francisco Bay. The drainage areas include Coyote Creek, Fisher Creek, Tennant Creek, Madrone Channel, Butterfield Channel, West Little Llagas Creek, and Llagas Creek. Each drainage area has a system of conveyance facilities, pumps, and basins to collect and dispose the runoff.

Stormwater is typically collected in the existing on-site or off-site stormwater facilities then flows into the City's stormwater system. The project site is located within the Coyote Creek basin drainage area. Coyote Creek drains the area north of Cochrane Road and east of U.S. Highway 101.<sup>81</sup> The creek drains water in the northerly direction to the San Francisco Bay.

#### **4.17.1.5 Applicable Plans, Policies and Regulations**

##### **Assembly Bill 939**

Assembly Bill 939 established the California Integrated Waste Management Board and required all California counties to prepare integrated waste management plans. AB 939 required all municipalities to divert 25 percent of their solid waste from landfill disposal by 1995. Fifty percent of the waste stream was to be diverted by the year 2000. The AB 939 diversion goals and program requirements are implemented through a disposal based reporting system by local jurisdictions under CalRecycle regulatory oversight.<sup>82</sup>

##### **Morgan Hill General Plan**

Many of the policies in the City's General Plan were adopted for the purpose of avoiding or mitigating potential environmental effects that could result from planned development within the City. The project would be subject to General Plan policies, including the following, conformance with which would reduce utilities and service system impacts to a less than significant level:

- *Sewer Capacity, Water Supply and Storm Drainage Policy 20a* - Expansion of the joint Gilroy/Morgan Hill Wastewater Treatment Facility should proceed, since additional sewer capacity is a prerequisite for further urban development and urban development is most appropriately served by sanitary sewer systems.
- *Sewer Capacity, Water Supply and Storm Drainage Policy 20c* - Ensure that the total capacity for the Gilroy/Morgan Hill Wastewater Treatment Facility, its timing for

<sup>81</sup> City of Morgan Hill, *Storm Drainage System Master Plan*, January 2002, <http://ca-morganhill.civicplus.com/DocumentCenter/Home/View/622>.

<sup>82</sup> CalRecycle. *21st Century Policy Project: Future Search Conference Issue: AB 939 in the New Millennium*. Available at: <<http://www.calrecycle.ca.gov/Archive/21stCentury/events/futuremar99/issues1.htm>>. Accessed April 7, 2015.

completion, and configuration are consistent with South County Joint Action Plan (SCJAP) policies for the overall growth of Morgan Hill and Gilroy.

- *Sewer Capacity, Water Supply and Storm Drainage Policy 21a* - Manage the supply and use of water more efficiently through appropriate means, such as watershed protection, percolation, conservation and reclamation.
- *Sewer Capacity, Water Supply and Storm Drainage Policy 21b* - Ensure that new development does not exceed the water supply.
- *Sewer Capacity, Water Supply and Storm Drainage Policy 22a* - Address issues related to flooding throughout the city.
- *Sewer Capacity, Water Supply and Storm Drainage Policy 22b* - Ensure that those residents who benefit from, as well as those who contribute to the need for, local drainage facilities pay for them.

#### 4.17.2 Environmental Checklist and Discussion of Impacts

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,29
2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,29
3. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,23
4. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,30
5. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
Would the project:					
6. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
7. Comply with federal, state and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

#### 4.17.2.1 *Impacts from the Proposed Project*

The project site is located in a developed area that is currently served by existing utility systems (e.g., water, sanitary sewer, solid waste, electricity, and natural gas). The project site is currently undeveloped and place little demand upon these existing utility systems. Development on the project site with 135 single-family units would incrementally increase demand upon the existing utility systems. The incremental increase in demand generated by the proposed development on the site is not expected to exceed the capacity of the existing utility systems in the project area.

#### Water Service

The project propose subdivisions to allow for the construction of 135 single-family homes and open space areas. The project would construct new eight-inch water mains that which would connect to existing 10- to 12-inch water mains immediately to the north of the site and to the south on Cochrane Road.

Based on the City's 2020 target of 159 gallons per capita per day of water use [gpcd; provided in the City's 2010 Urban Water Management Plan (2010 UWMP)] and the estimated number of residents generated from the project (411), the projected water demand for the project would be approximately 65,350 gallons per day. The estimated demand (based on the 2010 UWMP) for single-family residences in the City in 2020 is approximately 4,544,065 gallons per day.<sup>83</sup> The residential development at the project site was accounted for in the UWMP, and therefore, would not cause the City to exceed the projected demand for single-family residences in 2020. The City has sufficient water supply to serve the project in that the City's 2010 UWMP has accounted for the increase in water use based on the General Plan's projection of population growth in the City of Morgan Hill including the proposed project's residents.

For these reasons, implementation of the project would not adversely affect the functionality or the capacity of the existing water supply system. **(Less Than Significant Impact)**

<sup>83</sup> City of Morgan Hill. *2010 Urban Water Management Plan*. Adopted in June 2011. *Table 3.2.5 Water Deliveries Projected – 2020* (5,090 acre-feet per year or  $1.6586 \times 10^9$  gallons per year for single-family residences).



## Wastewater Treatment/Sanitary Sewer Impacts

### Wastewater Treatment Capacity

The 2010 ADWF for combined flows from Morgan Hill and Gilroy was approximately 6.8 mgd (with 2.88 mgd generated by Morgan Hill out of an allocation of 3.6 mgd, leaving roughly 0.7 mgd of remaining capacity for Morgan Hill growth, or 680,000 gallons per day). Based on combined population projections for both cities, the current capacity of 8.5 mgd is anticipated to be reached in mid-2019.<sup>84</sup> Both the Cities of Gilroy and Morgan Hill have growth control systems in place which limit unexpected increases in sewage generation. Based on Morgan Hill's share (0.7 mgd) of available unused daily capacity at the WWTF and the project's estimated sewage generation of 55,550 gallons per day (0.055 mgd),<sup>85</sup> there is sufficient capacity at the WWTF to process the sewage generated by the project. The proposed project would be consistent with planned growth (based on the City's General Plan) and would not require the expansion or construction of wastewater treatment facilities. **(Less Than Significant Impact)**

### Wastewater Treatment Requirements

Wastewater generators, such as the WWTF, have a permit to discharge their wastewater. Pursuant to the Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the Central Coast RWQCB regulates wastewater discharges to surface waters, such as San Francisco Bay, through the NPDES program (described in Section 2.10, *Hydrology*). Wastewater permits contain specific requirements that limit the pollutants in discharges. As required by the RWQCB, the WWTF monitors its wastewater to ensure that it meets all requirements. The RWQCB routinely inspects treatment facilities to ensure permit requirements are met.

Sewage from the development on the project site would be treated at the WWTF in accordance with their existing NPDES permit. It is not anticipated that the sewage generated by the project would exceed wastewater treatment requirements of the RWQCB.

**(Less Than Significant Impact)**

### Sanitary Sewer Capacity

The City of Morgan Hill sewer collection system consists of approximately 135 miles of six-inch through 30-inch diameter sewers, and includes 15 sewage lift stations and associated force mains. The "backbone" of the system consists of the trunk sewers, generally 12-inches in diameter and larger, that convey the collected wastewater flows through an outfall that continues south to the South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Facility (WWTF) in Gilroy.<sup>86</sup> The WWTF is jointly owned by the cities of Gilroy and Morgan Hill and provides service to the cities of Morgan Hill and Gilroy. The City's existing sewer collection system meets the needs of existing customers. The City has planned and constructed sewer facilities in conjunction with new street construction in anticipation of future growth and sewage needs.

<sup>84</sup> South County Regional Wastewater Authority. *Cities of Gilroy and Morgan Hill: Wastewater Flow Projections*. August 2011.

<sup>85</sup> Based on 85 percent of the total water usage.

<sup>86</sup> City of Morgan Hill. *Sewer System Master Plan*. January 2002.

The proposed project would generate approximately 55,550 gallons (0.055 mgd) of sewage per day.<sup>87</sup> The project would construct eight-inch sanitary sewer lines interior to the project site, which would connect to the existing 10-inch sewer lines immediately to the north and south (on Cochrane Road) of the site. No new sanitary sewer lines are needed off-site to serve the project. The proposed project would not result in significant impacts to the sanitary sewer system.

**(Less Than Significant Impact)**

### **Solid Waste**

Construction of 135 single-family residences on the project site would generate approximately 1,350 pounds of solid waste from the site per day<sup>88</sup>, which would contribute to the total amount of waste generated by the City. In the most recent reporting year, Morgan Hill had a landfill waste diversion rate of 62 percent, exceeding the 50 percent standard set by AB 341.<sup>89</sup> Development of the project site would, therefore, not exceed the City's planned solid waste demand that serves as the basis for the City's long-term utilities and service system infrastructure planning.

The City of Morgan Hill has contracted with Recology South Valley to provide solid waste disposal and recycling service within the City. Recology South Valley would dispose of solid waste from the City at Johnson Canyon Sanitary Landfill which has a projected permitted capacity of approximately 13,800,000 cubic yards and is expected to remain open through 2040.<sup>90</sup> The project would result in increased waste disposal from the project site; however, the proposed residential development would be served by a landfill with adequate capacity to serve the project site.

**(Less Than Significant Impact)**

### **Storm Drainage**

Development on the project site would increase the amount of impervious surfaces by 49 percent on the project site and, as a result, would increase the amount of stormwater runoff generated by the project site. Stormwater runoff from the proposed development would be managed via stormwater control measures such as linear bioswales and bioretention basins for smaller storm treatment and infiltration, and a larger centralized hydromodification basin to address peak flow mitigation for larger, less frequent storm events. The hydromodification basin would be located in the 2.8-acre common open space area. All treatment measures and the hydromodification basin would be designed in accordance with the San Francisco Regional Water Quality Control Board C.3 requirements and City of Morgan Hill Design Standards.

Runoff is proposed to be conveyed to the smaller treatment facilities via surface flow in street gutters in conjunction with curb cuts or under sidewalk drains. Excess runoff is proposed to be collected in a

<sup>87</sup> Estimated wastewater usage is approximately 85 percent of total water usage.

<sup>88</sup> CalRecycle. *Waste Characterization. Residential Developments: Estimated Solid Waste Generation Rates*. Last Updated January 2013. Available at: <<http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/default.htm>>. Accessed April 7, 2015. Based on a waste generation rate of 10 pounds per dwelling unit, per day (average pounds per dwelling unit for the projects listed in the table).

<sup>89</sup> City of Morgan Hill. Council

<sup>90</sup> CalRecycle. *Facility/Site Summary Details: Johnson Canyon Sanitary Landfill*. 2008. Available at: <<http://www.calrecycle.ca.gov/SWFacilities/Directory/27-AA-0005/Detail/>>. Accessed April 14, 2015.

new underground pipe conveyance system comprised of 15-inch to 18-inch diameter storm drains, which outfall to the central hydromodification basin. An overflow structure and pipe system would convey excess runoff from the hydromodification basin to the existing City of Morgan Hill storm drain system at the intersection of Peet Road and Eagle View Drive, which ultimately discharges to Coyote Creek.

In accordance with the City of Morgan Hill Standard Conditions of Approval, a Storm Drainage Study would be submitted to the Director of Public Works for review and approval prior to issuance of a grading permit. The Study would include calculations to ensure that runoff from the project site would not exceed the capacity of existing or planned stormwater drainage systems.<sup>91</sup> The project, therefore, would result in less than significant drainage impact. **(Less Than Significant Impact)**

#### **4.17.3      Reasonably Foreseeable Impacts to Adjacent Parcels**

Impacts to utility systems or from installation of new utilities during development of the adjacent parcels (APN 728-36-012 to the east, and APNs 728-38-022 and 728-38-005 to the north) would be evaluated at the time of development of the future projects. There are no reasonably foreseeable impacts related to utilities that would result specifically from extension of the proposed project roadways onto the adjacent parcels at the locations proposed.

#### **4.17.4      Conclusion**

The project would not exceed wastewater treatment requirements of the California Regional Water Quality Control Board, Central Coast Region. The project would connect to existing sanitary sewer lines in the City streets serving the project site and would not require the construction or expansion of South County Regional Wastewater Authority treatment facility. The wastewater treatment system has the capacity to serve the project. **(Less Than Significant Impact)**

The project would not include the construction of new stormwater drainage facilities or expansion of existing facilities that would cause a significant environmental effects. Furthermore, the City has sufficient water supply to serve the project. **(Less Than Significant Impact)**

The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. The proposed project would comply with state and City regulations related to solid waste. **(Less Than Significant Impact)**

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<sup>91</sup> Using the City's requirements for sizing, the project site would be required to provide storage for a 25-year, 24-hour storm with an additional capacity of 25 percent for freeboard.

**4.18 MANDATORY FINDINGS OF SIGNIFICANCE**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Checklist Source(s)
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,10,11, 13, 14
2. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,9,27,28
3. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-30
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-30

**4.18.1 Project Impacts**

The project site is mostly vacant (with a small wooden former shade shelter for cattle) and is comprised of open grassland and a former vineyard. The project would include the demolition of the existing structures and develop the site with residential (135 single-family units) and common open space uses in accordance with the City’s General Plan. This Initial Study evaluates the environmental impacts that could result from the project’s implementation. With implementation of the mitigation measures included in the project and described in Sections 4.4 *Biological Resources* and 4.12 *Noise*, and compliance with City General Plan policies and Standard Conditions of Approval, the proposed project would not result in significant adverse environmental impacts to fish or wildlife species, rare plants, or cultural resources.

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

#### 4.18.2 Cumulative Impacts

Under Section 15065(a)(3) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects “that are individually limited, but cumulatively considerable.” As defined in Section 15065(a)(3) of the CEQA Guidelines, cumulatively considerable means “that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” This Initial Study evaluates the environmental impacts of the proposed single-family residential project that result in 135 residential units. This Initial Study also takes into account other past, pending, and possible future projects in the vicinity of these project site whose impacts could combine to produce cumulative impacts.

The biological resources impact is identified as temporary, would be mitigated and is unrelated to other properties. The project would not have a cumulatively considerable contribution to a cumulative impact on biological resources, and through payment of applicable HCP/NCCP impact fees, would also provide a fair share contribution to cumulative loss of habitat, including effects from nitrogen deposition on serpentine habitat in the area. The project’s air pollutant emissions would be below BAAQMD thresholds; therefore the project would not have a cumulatively considerable impact on air quality. The proposed project’s GHG emissions would be below BAAQMD’s per capita threshold for GHG emissions; therefore, cumulative GHG emissions impacts would be less than significant.

Noise impacts from the project would be mitigated and would not have a cumulatively considerable contribution to these impacts in the project area. Additionally, cumulative roadway noise was found less than significant.

The project would contribute to cumulative demands on utilities and service systems (water, sewer, solid waste, storm drainage). The project’s water demand has been considered along with the cumulative water demand from existing and other planned development under the General Plan as part of the most recent Urban Water Management Plan. The City’s RDCS process helps to regulate the timing and amount of new residential development to ensure adequate water supply is on hand to serve existing and new development.

The City of Morgan Hill currently has allocation for approximately 0.7 mgd of remaining treatment capacity at the SCRWA Wastewater Treatment Plant, and this remaining capacity is adequate to handle the wastewater flows from implementation of the current General Plan, which includes the subject project and other planned development in the City through 2019. The City of Gilroy also sends wastewater to the SCRWA facility, and has allocation for approximately 1.0 mgd of remaining capacity for its planned growth. The combined flows from the two cities are projected to exceed the current treatment capacity of 8.5 mgd in 2019, necessitating an increase of the existing facility’s capacity to approximately 10 mgd<sup>92</sup>. This expansion of plant treatment capacity would undergo its own environmental review at the time the expansion was needed and sufficient details existed for meaningful analysis, with SCRWA acting as the CEQA lead agency.

<sup>92</sup> South County Regional Wastewater Authority. *Cities of Gilroy and Morgan Hill: Wastewater Flow Projections*. August 2011

The final drainage system design for the cumulative projects would be subject to review and approval by the City of Morgan Hill Public Works Department, who would confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. As discussed in the Section 4.17, *Utilities and Service Systems*, the landfill serving the site and the City as a whole, has remaining capacity to serve the region through 2040.

The cumulative impacts associated with the Target Phase II Project (approved project immediately adjacent and to the west of the project site), Cochrane Village, Future Lands of Cochrane Road (immediately adjacent and to the east of the project site, and not currently on file with the City), and San Sebastian Residential were analyzed as part of the project's TIA (refer to Table 4.16-7 for descriptions of these projects). Implementation these future projects (without the implementation of the proposed Cochrane Standard Pacific project) would result in a significant cumulative transportation impact at the Mission View Drive and Cochrane Road intersection due to the change from acceptable levels of service to an unacceptable LOS F during the AM and PM peak hours. However, the Cochrane Standard Pacific project would install a traffic signal on Mission View Drive and Cochrane Road as a project site access improvement, which would result in an acceptable LOS B at this intersection under cumulative plus project conditions. The new traffic signal would reduce cumulative transportation impacts to a less than significant level.

The project includes mitigation measures to reduce its significant impacts to a less than significant level. It is not anticipated that the proposed project would provide a cumulatively considerable contribution to future cumulative impacts. **(Less Than Significant Impact)**

#### **4.18.3      Short-term Environmental Goals vs. Long-term Environmental Goals**

The project would include the demolition of existing structures and would develop the site with residential and common open space uses in accordance with the City's General Plan. The construction of the project would result in the temporary disturbance of partially developed land as well as irreversible and irretrievable commitment of resources during construction, it is anticipated that these short-term effects would be substantially off-set by the long-term improvement of the infill site. With implementation of the mitigation measures included in the project (in Sections 4.4 *Biological Resources* and 4.12 *Noise*) and the Standard Conditions of Approval (described in Sections 4.3 *Air Quality*, 4.5 *Cultural Resources*, 4.6 *Geology and Soils*, and 4.9 *Hydrology and Water Quality*), and compliance with City General Plan policies, the project would not result in significant adverse environmental impacts that come at the expense of long-term environmental goals. The project GHG emissions are below BAAQMD thresholds used to evaluate whether a project would frustrate the State of California's long-term efforts to reduce climate change. **(Less Than Significant Impact with Mitigation)**

#### **4.18.4      Direct or Indirect Adverse Effects on Human Beings**

Consistent with Section 15065(a)(4) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be

treated as significant if people would be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings will be represented by all of the designated CEQA issue areas, those that could directly affect human beings include hazardous materials, and construction fugitive dust and noise. Implementation of mitigation and standard measures would, however, reduce these impacts to a less than significant level. No other significant direct or indirect adverse effects on human beings have been identified.

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

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