INITIAL STUDY

Campoli Residential Projects

Application File Numbers:

North Campoli (Campoli-Cox): ZA-11-12/ SD-11-07
South Campoli (Campoli-E&H): ZA-11-02/DA-11-01/SD-11-01/
EA-11-02

CITY OF MORGAN HILL

March 2013

TABLE OF CONTENTS

SECTION 1 INTRODUCTION AND PURPOSE 1

SECTION 2 PROJECT INFORMATION 2

2.1 PROJECT TITLE 2
2.2 PROJECT LOCATION 2
2.3 PROPERTY OWNER/PROPONENT 2
2.4 LEAD AGENCY CONTACT 2
2.5 ASSESSOR'S PARCEL NUMBERS 3
2.6 GENERAL PLAN DESIGNATION AND ZONING DISTRICT 3

SECTION 3 PROJECT DESCRIPTION 7
3.1 OVERVIEW 7
3.2 PROJECT DESCRIPTION 7

SECTION 4 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS 11
4.1 AESTHETICS 11
4.2 AGRICULTURAL AND FOREST RESOURCES 19
4.3 AIR QUALITY 21
4.4 BIOLOGICAL RESOURCES 32
4.5 CULTURAL RESOURCES 45
4.6 GEOLOGY AND SOILS 49
4.7 GREENHOUSE GAS EMISSIONS 52
4.8 HAZARDS AND HAZARDOUS MATERIALS 57
4.9 HYDROLOGY AND WATER QUALITY 61
4.10 LAND USE 69
4.11 MINERAL RESOURCES 74
4.12 NOISE 75
4.13 POPULATION AND HOUSING 87
4.14 PUBLIC SERVICES 89
4.15 RECREATION 93
4.16 TRANSPORTATION 95
4.17 UTILITIES AND SERVICE SYSTEMS 103
4.18 MANDATORY FINDINGS OF SIGNIFICANCE 107

SECTION 5 REFERENCES 110

SECTION 6 AUTHORS AND CONSULTANTS 115

TABLE OF CONTENTS

FIGURES

Figure 2.2-1 Regional Map 4
Figure 2.2-2 Vicinity Map 5
Figure 2.2-3 Aerial Photography and Surrounding Land Uses 6
Figure 3.2-1 North Campoli Project Site Plan 9
Figure 3.2-2 South Campoli Project Site Plan 10
Figure 4.16-1 Transit Facilities 97

TABLES

Table 4.3-1 Community Risk Impacts to Maximally Exposed Receptors 31
Table 4.9-1 Pervious and Impervious Surfaces On-Site: North Campoli Project Site 65
Table 4.9-2 Pervious and Impervious Surfaces On-Site: South Campoli Project Site 65
Table 4.12-1 Short-Term Noise Measurement Data 77
Table 4.16-1 Weekday Project Trip Generation Rates and Estimates 100

APPENDICES

Appendix A Toxic Air Contaminant and $PM_{2.5}$ Assessment
Appendix B Biological Constraints Analysis
Appendix C Cultural Resources Study
Appendix D Phase I Environmental Site Assessment
Appendix E Noise And Vibration Assessments

SECTION 1 INTRODUCTION AND PURPOSE

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 two adjacent private development projects: the North Campoli Residential project and the South Campoli Residential project. The North Campoli project is a 2.04-acre site (APN 764-24-038, 764-24-040, and 764-24-042) located on the north side of Campoli Drive off Old Monterey Road that proposes a 10-unit lot residential subdivision. The South Campoli project is a 2.35-acre site (APN 764-24-010) located on the south side of Campoli Drive immediately east of Fisher Creek and west of Old Monterey Road that proposes an 11-unit single-family detached residential development.

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

SECTION 2 PROJECT INFORMATION

2.1 PROJECT TITLE

Campoli Residential Projects

- North Campoli Residential Project (Campoli-Cox: ZA-11-12/ SD-11-07)
- South Campoli Residential Project (Campoli-E&H: ZA-11-02/DA-11-01/SD-11-01/ EA-11-02)

2.2 PROJECT LOCATION

The North Campoli project is a 2.04-acre site located on the northwest side of Campoli Drive off Old Monterey Road (refer to Figures 2.2-1, 2.2-2, and 2.2-3). This site is surrounded by an approved but not yet constructed residential subdivision to the north, an existing residential development to the west and east, and the pending South Campoli Residential project to the south.

The South Campoli project is a 2.35-acre site located on the south side of Campoli Drive immediately east of Fisher Creek and west of Old Monterey Road (refer to Figures 2.2-1, 2.2-2, and 2.2-3). Union Pacific Railroad (UPRR)/Caltrain tracks and Monterey Road are immediately east of Old Monterey Road. This site is also surrounded by the pending North Campoli Residential project (immediately north of Campoli Drive) and an existing residential development to the north and an existing residential development to the south of the site.

2.3 PROPERTY OWNER/PROPONENT

North Campoli Residential Project
Warren Cox
2991 Salen Drive
Santa Clara, CA 95051
(408) 309-3863
South Campoli Residential Project
E & H 3rd FLP
Emily Chen
21009 Seven Springs Parkway
Cupertino, CA 95014
(408) 421-2695

2.4 LEAD AGENCY CONTACT

City of Morgan Hill
Steve Golden, Associate Planner (North Campoli)
Rebecca Tolentino, Senior Planner (South Campoli)
Community Development Agency
17575 Peak Avenue
Morgan Hill, CA 95037
(408) 778-6480

2.5 ASSESSOR'S PARCEL NUMBERS

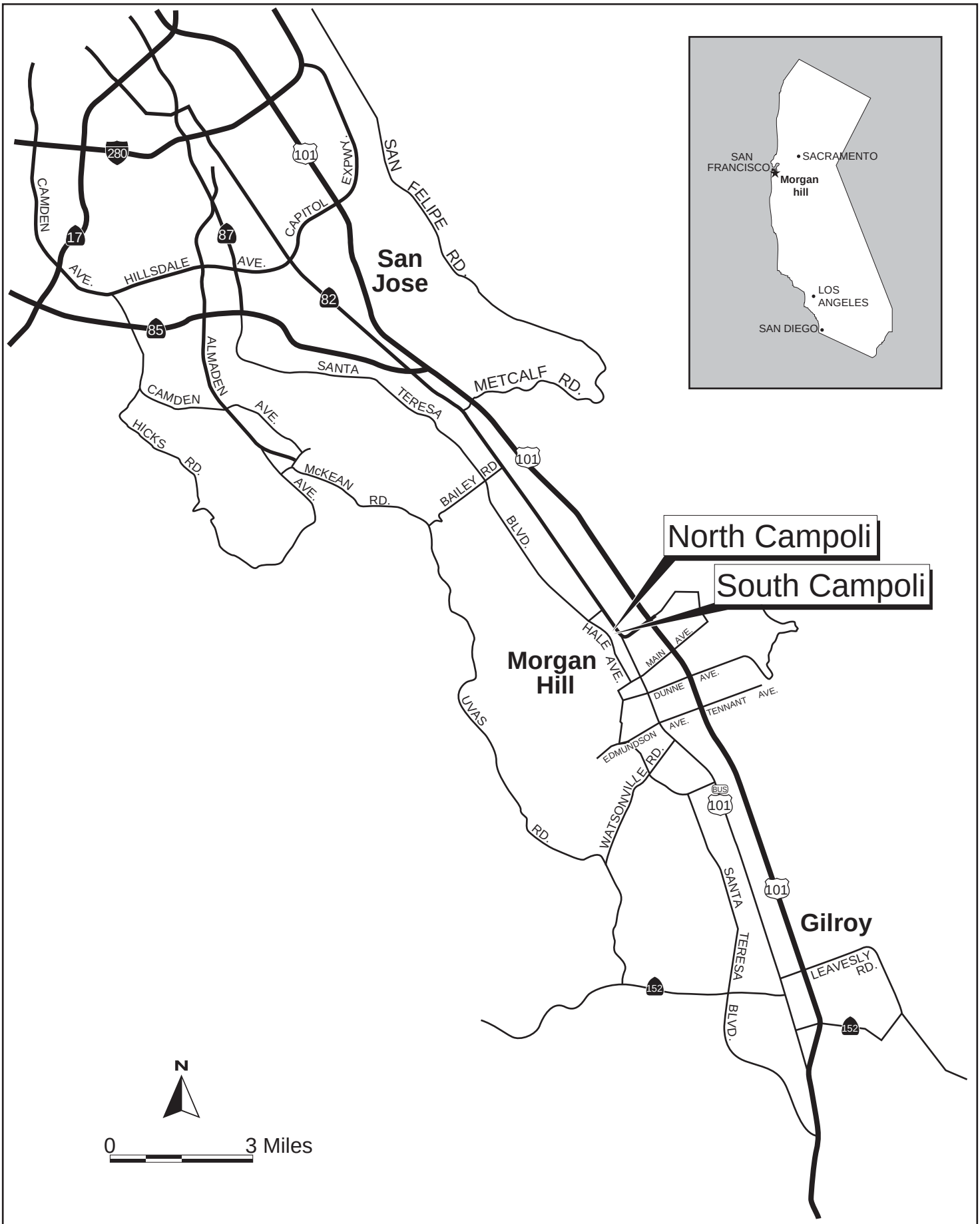
North Campoli Residential Project: 764-24-038, 764-24-040, and 764-24-042
South Campoli Residential Project: 764-24-010
Campoli Drive (Both Projects): 764-24-039, 764-24-041, and 764-24-043

2.6 GENERAL PLAN DESIGNATION AND ZONING DISTRICT

North Campoli and South Campoli Projects

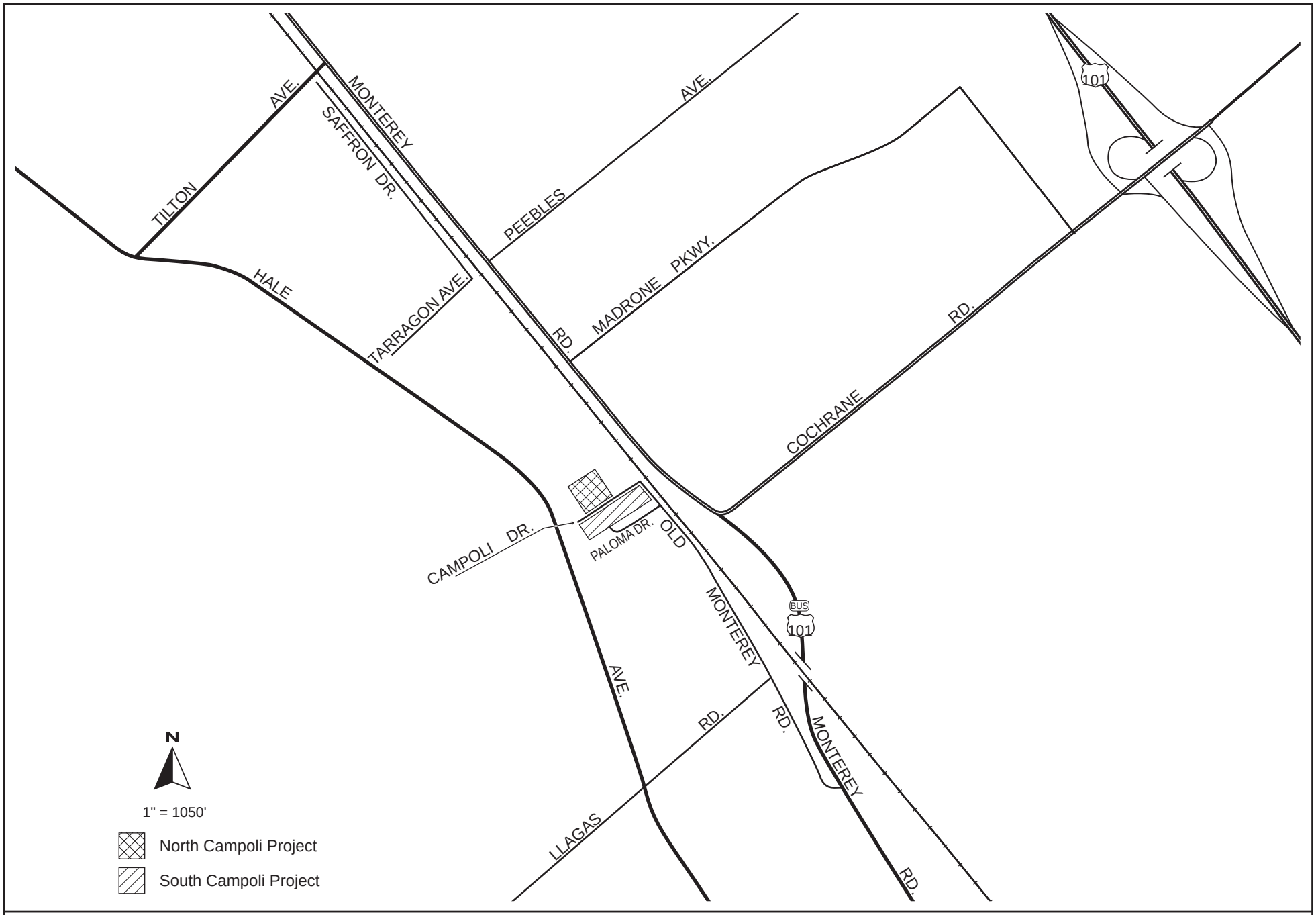
Existing General Plan Designation: Single-Family Medium (3-5 dwelling units per acre [du/ac])
Existing Zoning District: Single-Family District (R1-7000)

Proposed Zoning: R1-7000, Planned Development (PD)



REGIONAL MAP

FIGURE 2.2-1



VICINITY MAP

FIGURE 2.2-2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2.2-3

SECTION 3 PROJECT DESCRIPTION

3.1 OVERVIEW

There are two project sites under evaluation in this environmental document, referred to as North Campoli Residential Project and South Campoli Residential Project. The City of Morgan Hill will consider the approval of each project independent from one another.

3.2 PROJECT DESCRIPTION

3.2.1 North Campoli Residential Project

The 2.04-acre site (APN 764-24-038, 764-24-040, and 764-24-042) is surrounded by vacant land (approved Hale-Signature Homes 108-unit residential development) to the north, a single-family house and UPRR/Caltrain tracks to the east, Campoli Drive, vacant land and a single-family house (South Campoli Residential Project) to the south, and a single-family house and Fisher Creek to the west. Fisher Creek is located 100 feet west of the project site and the railroad tracks are located approximately 250 feet east of the project site.

The project will maintain the existing *Single-Family Medium (3-5 dwelling units per acre [du/ac])* General Plan land use designation. The existing zoning at the site is *R1-7,000-Single Family District*. The project proposes to amend the zoning to *R1-7,000 (PD)-Single Family District*, allowing for exceptions to the existing site development standards of the base zoning district through the Planned Development (PD) approval process. The project area consists of six legal lots. The project proposes to re-parcelize and subdivide the existing lots to create ten parcels, allowing for the development of 10 single-family homes; refer to Figure 3.2-1.

Residential growth in Morgan Hill is ultimately controlled by the Residential Development Control System (RDCS)[1] 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. The North Campoli project has six lots of record that are exempt through the RDCS allocation requirement (per the City Council's RDCS implementation policy, CP-07-04). The balance of the parcels of the project will be conditioned to receive future RDCS allocations.

Roadway improvements, including installation of new sidewalks and pavement, will be constructed on the north side of Campoli Drive as part of the project. The project also includes construction of the southern half of a new public street on the site's northern boundary to provide street access for Lots 6 through 10. This half of the public street will be extended onto the adjacent property (764-24-009) to the west where it will connect to Old Monterey Road; refer to Figure 3.2-1. The northern half of the street will be constructed as a part of the separate approved project (Hale-Signature Homes) to the north and will be constructed on the adjacent property. As a condition of approval, the approved

[1]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.

residential development to the north will improve and widen Old Monterey Road along the adjacent property (764-24-009) at the northwest corner of the Old Monterey Road and Campoli Drive; however, if the approved Hale-Signature Homes residential development to the north does not proceed, the North Campoli project will be conditioned to at a minimum complete a "half street" section on the Old Monterey Road frontage.[2]

3.2.2 South Campoli Residential Project

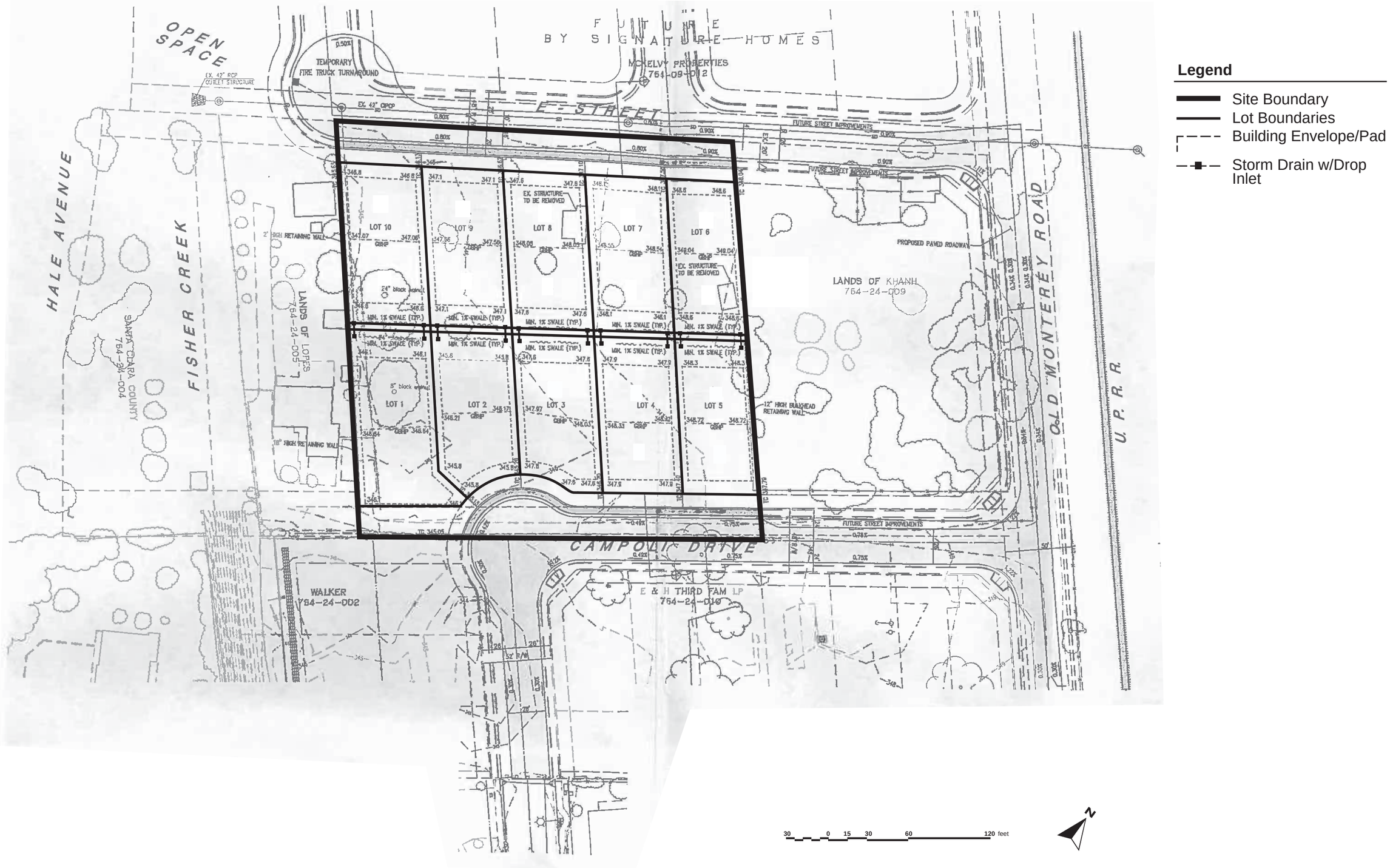
The South Campoli site is located on the south side of Campoli Drive and includes one parcel totaling 2.35 acres (APN 764-24-010); refer to Figure 3.2-2. A portion of the site is developed with a single-family house with a backyard surrounded by a wood fence and a gravel U-shaped driveway off of Old Monterey Road. The remaining portion of the site is vacant land that abuts Fisher Creek. The site is bordered by Campoli Drive, vacant land (North Campoli Residential Project) and two single-family houses to the north, a single-family residential development to the south, Old Monterey Road, and the UPRR/Caltrain tracks to the east, and Fisher Creek to the west.

The project will maintain the existing *Single-Family Medium (3-5 dwelling units per acre [du/ac])* General Plan land use designation. The existing zoning at the site is *R1-7,000-Single Family District*. The project proposes to amend the zoning to *R1-7,000 (PD)-Single Family District*, to allow for exceptions to the existing site development standards of the base zoning district through the Planned Development (PD) approval process. The project will subdivide the project parcel into eleven lots, allowing for the development of 11 single-family houses. The South Campoli project had originally been awarded 12 allocations for the fiscal year 2011-2012. The project received an Exception to Loss of Building Allocation to extend the commencement of construction deadline to December 30, 2013. The project has also gone through design changes and, if approved, will not utilize all 12 units the project was originally awarded.

Roadway improvements, including half-street improvements of the south side of Campoli Drive and on the Old Monterey Road frontage and extension of Bonita Drive to Campoli Drive are part of the project.

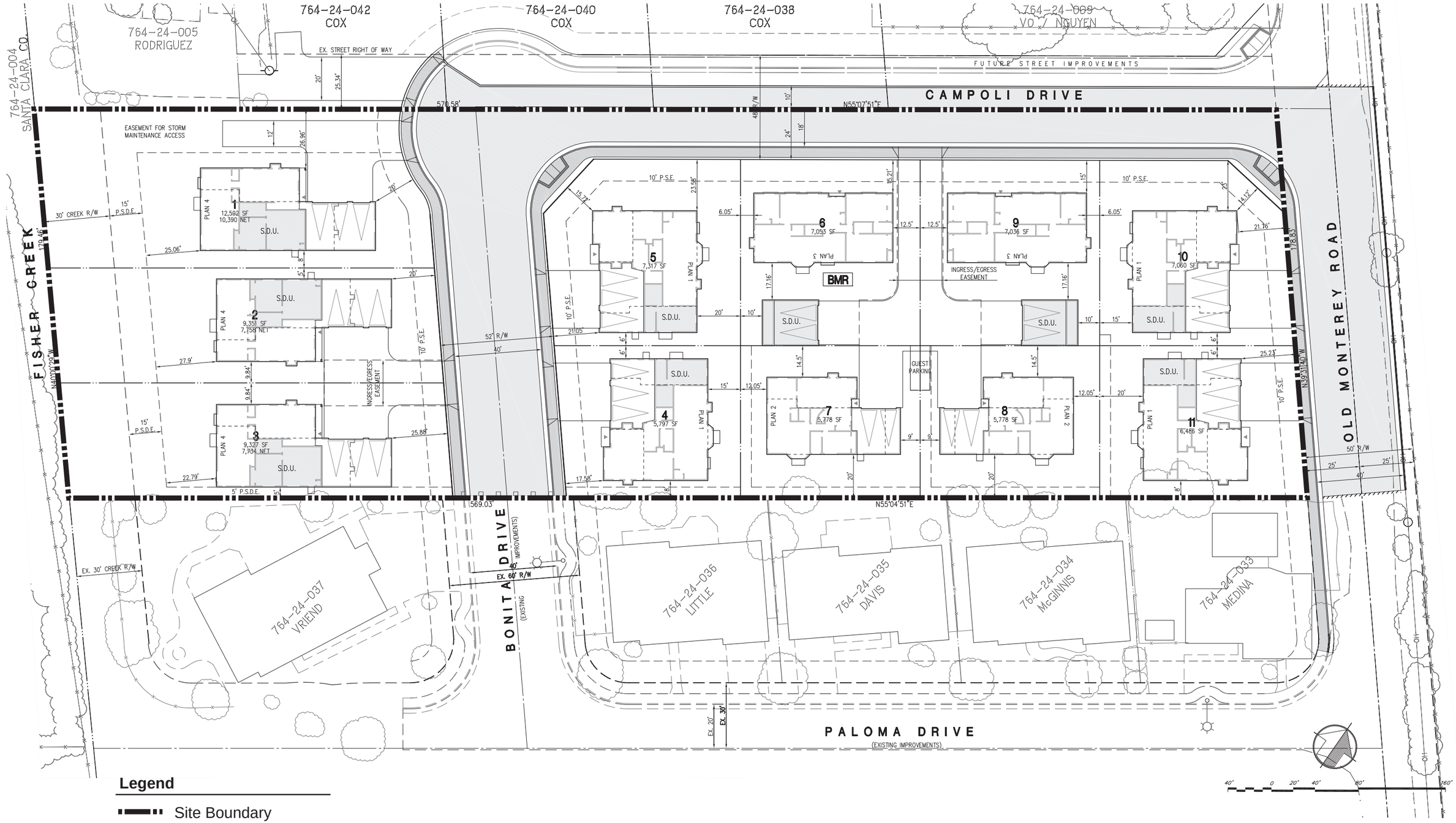
Stormwater bioretention basins will be constructed along the project site fronting Fisher Creek which will ultimately flow back to the City's stormwater system along Paloma Drive.

[2] Per the Design Standards and Standard Details for Construction, Department of Public Works, City of Morgan Hill.



NORTH CAMPOLI PROJECT SITE PLAN

FIGURE 3.2-1



SOUTH CAMPOLI PROJECT SITE PLAN

FIGURE 3.2-2

SECTION 4 ENVIRONMENTAL CHECKLIST AND DISCUSSION OF IMPACTS

This section describes the existing environmental conditions on and near the project site, 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 is 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 Guideline 15370). Measures that are proposed by the applicant that will further reduce or avoid already less than significant impacts are categorized as "Avoidance Measures."

4.1 AESTHETICS

4.1.1 Setting

4.1.1.1 North Campoli Residential Project

The approximately 2.04-acre project site consists of flat grassland, six California black walnut trees, one small coast live oak tree, and two small outbuildings (see Photos 1 and 2). The project site is surrounded by an approved (but not yet constructed) residential subdivision to the north (Hale-Signature Homes project), an existing residential development to the west and east (see Photo 3), and the pending South Campoli Residential project to the south.

There are no structures on the project site, aside from the two outbuildings, and the project site has never been developed.

The single-family residential developments to the west and east of the project site are comprised of older wood-framed one-story structures with driveways, attached garages, and trees on their properties. The house to the west has two smaller structures on the property and the house to the east has a wooden fenced-in backyard. The residential structure to the south is on the pending South Campoli project site discussed in Section 4.1.1.2, below.

4.1.1.2 South Campoli Residential Project

The approximately 2.35-acre project site is developed with a one-story single-family house with facades of varying combinations of wooden siding, stucco and stone. The house has an attached garage, wooden backyard fence, and a graveled driveway and parking area (see Photos 4 and 5).[3]

[3] Enviro Assess. *Phase I Environmental Site Assessment. Campoli Drive Properties*. 2012

The site consists of 19 trees, including California black walnut, almond, southern magnolia, olive, toyon, and coast live oak trees.[4] The project site is bordered by Campoli Drive and the pending North Campoli residential development to the north, a single-family residential development to the south, Old Monterey Road and the UPRR/Caltrain tracks to the east, and Fisher Creek to the west. Commercial and industrial development is east of the UPRR/Caltrain tracks and a residential development is to the west of Fisher Creek. Fisher Creek is channelized and located along the western border of the project site.

The single-family residential development to the south of the project site is comprised of one to two-story structures. Houses in this neighborhood have facades made primarily from stucco. The adjacent UPRR/Caltrain tracks are slightly higher in elevation compared to the project site and are approximately 50 feet east of the project property line. Monterey Road, a major roadway located to the east of the UPRR/Caltrain tracks, has four lanes (two in each direction) and bike lanes on both sides with no sidewalks or medians. The commercial and industrial buildings, to the east of the UPRR/Caltrain tracks, are older buildings that are one- and two-stories in height

.

[4] Live Oak Associates, Inc. *Biological constraints analysis of the South Campoli Drive Site, Morgan Hill, Santa Clara County, California (PN 1621-01)*. June 2012.

PHOTO 1: View of California black walnut trees on the eastern property line of the North Campoli project site.

PHOTO 2: View of the two outbuildings on the North Campoli project site.

PHOTOS 1 AND 2

PHOTO 3: View of the adjacent residence near the eastern property line of the North Campoli project site.

PHOTO 4: South Campoli project site facing the northeast direction.

PHOTOS 3 AND 4

PHOTO 5: Single-family residence at the South Campoli project site.

PHOTO 5

4.1.2 Environmental Checklist and Discussion of Impacts

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

4.1.2.1 Aesthetic Impacts

The North Campoli project will allow for the development of 10 single-family houses and the South Campoli project will allow for the development of 11 single family houses. On-site detention basins will be constructed for the South Campoli project. Roadway improvements and right-of-way dedications will be constructed for both projects.

The North Campoli lots will range from approximately 7,000 square feet (s.f.) to 10,000 s.f. in size. The South Campoli lots will range from approximately 5,700 s.f. to 12,600 s.f. in size. All of the single-family residences for both projects will have private driveways to access the lots. The garages will make up part of the front facades of the South Campoli residences.

At the time this document was drafted, the North Campoli site was proposed as custom lot development, therefore, there was no conceptual building designs to review. All residential structures at the South Campoli project site will have a mix of elevations and rooflines, and will have staggered setbacks from the streets. Entryways to all residences on the South Campoli project site will be delineated by porches and pediments located in front of the buildings. All of the proposed South Campoli residences will have facades made from varying combinations of stucco, smooth panel siding, lap siding, stone, and/or brick.

While the North Campoli and South Campoli projects will change the visual character of the project sites by allowing construction of residential buildings, the proposed structures will use a variety of facade materials, and may include both one- and two-story structures, which is consistent with the

scale and character of the existing neighborhoods in the area. The residential developments will fit in with the character of the existing residential neighborhoods and will not degrade the existing visual character of the site or its surroundings. **(Less Than Significant Impact)**

The entire length of the Fisher Creek channel is a constructed channel. The natural channel of the creek was realigned in the past, and some portions of the creek were channelized or re-worked. There are no significant stands of trees or mature riparian vegetation surrounding or within the channel within the South Campoli project area. As a result, the portion of Fisher Creek within the South Campoli project site is not an important aesthetic resource. **(Less Than Significant Impact)**

4.1.2.2 Visual Intrusion

The North Campoli and South Campoli project sites are located in an area with existing residential developments. New residential development on the North Campoli project site will be adjacent to existing residential development on the eastern and western boundaries of the site. New residential development on the southern boundary of the South Campoli project site will also be adjacent to existing residential development. In urban environments, properties are in proximity to each other and complete privacy is not typical or expected. Development standards of the base zoning district allow up to two and one-half stories or 30 feet, which is similar to the surrounding development. Both projects are typical of suburban infill development and will not degrade the visual quality of the area. **(Less Than Significant Impact)**

4.1.2.3 Light and Glare

Residential development at the North Campoli and South Campoli project sites will 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 North Campoli and South Campoli residential developments will be consistent with the levels of light and glare currently emitted by residential developments surrounding the North Campoli project site to the west and east, and residential developments surrounding the South Campoli project site immediately to the north and south, will be typical of an suburban area, and is not considered substantial. Implementation of the North Campoli and South Campoli projects will not, therefore, result in significant new sources of light or glare. **(Less Than Significant Impact)**

4.1.2.4 Shade and Shadow Impacts

In an urban environment virtually all land uses are subject to shading from adjacent properties to some extent. In the summertime, shading can even be desirable. Maximum shading occurs on December 21st or 22nd, during the winter solstice when the sun is at the lowest angle above the horizon. Shade or shadow impacts can occur when a building or other structure substantially reduces natural sunlight on private or public open spaces.

Throughout the cycle of each day, shadows move from a northwesterly to a northeasterly direction. The North Campoli project will include construction of five residential units adjacent to the northern boundary of the North Campoli project site and five residential units adjacent to the northern

boundary of the South Campoli site; it is expected that the residential units adjacent to the northern boundary of the project sites will be shaded by the project in the early and later parts of the day. The North Campoli and South Campoli projects will not be out of scale with surrounding development. The proposed projects will construct single-family residential buildings adjacent to other existing single-family buildings in an urban environment, where it is typical for houses to be located in close proximity to one another. Height restrictions of the development standards of the base zoning district allow up to two and one-half stories or 30 feet, which is similar to the surrounding development. Shadows that will result from these projects are expected to occur in a residentially zoned neighborhood. There are no public open spaces in the vicinity of the project sites that will be affected by shadows from the proposed projects. The proposed projects will not result in significant shade or shadow impacts. **(Less Than Significant Impact)**

4.1.2.5 Scenic Resources

The North Campoli and South Campoli project sites are not designated as scenic resources, nor are there designated scenic vistas in the project sites' area. The project sites are not located within a State scenic highway and are not located in the vicinity of a designated scenic corridor. New buildings will modify views of the foothill areas to the west of the project sites, but are not anticipated to have a substantial adverse effect on a scenic vista.

Trees are considered scenic resources in suburban environments as they contribute to aesthetic interest and character. The trees on the North Campoli and South Campoli project sites are proposed to be removed during construction. None of these trees, however, are considered significant under the City of Morgan Hill's Municipal Code. The tree removal activities shall be in accordance with approved site plans of the developments in addition to the City's requirements. The North Campoli project proposes to plant new trees to replace the removed trees. Additionally, the South Campoli project is proposed to plant 22 trees, shrubs, and ground covers. The types of trees proposed to be planted on the South Campoli site are Chinese pistache, crape myrtle and evergreen (non-native trees). The planting of replacement trees in accordance with City policies will offset the aesthetic effects of tree removal. For these reasons, tree removal will not have a significant impact on scenic resources. **(Less Than Significant Impact)**

4.1.3 <u>Conclusion</u>

The projects will have a less than significant impact on the visual character of the project area. The projects will not create significant additional sources of light or glare and will not result in significant shade or shadow impacts. The projects will have a less than a significant impact on scenic resources. The projects will not result in significant visual impacts. **(Less Than Significant Impact)**

4.2 AGRICULTURAL AND FOREST RESOURCES

4.2.1 Setting

California Department of Conservation's Farmland Mapping and Monitoring Program's Santa Clara County Important Farmland 2010 Map designates the North Campoli and South Campoli project sites as *Urban and Built-up Land,* which is defined as land that is occupied by structures with a building density off at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel.[5] The project sites and adjacent properties are not currently used for agricultural purposes, although the properties were historically part of former dairy farm. The North Campoli project site consists of grasslands, trees and two outbuildings; the South Campoli project site consists of one single-family house and grasslands.

Neither project site is subject to a Williamson Act contract. The project sites are not a forest resource, nor are there forest resources in their surrounding areas.

4.2.2 Environmental Checklist and Discussion of Impacts

AGRICULTURAL AND FOREST RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information 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?	☐	☐	☐	☒	☐	1,2,4
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	☐	1,2,4

[5] California Department of Conservation. S*anta Clara County Important Farmland.* June 2011. Available at: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/scl10.pdf>. Accessed October 3, 2012.

AGRICULTURAL AND FOREST RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
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))?	☐	☐	☐	☒	☐	1,2
4) Result in a loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	☐	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?	☐	☐	☐	☒	☐	1,2

4.2.2.1 Impacts from the Proposed Projects

The North Campoli and South Campoli project sites are currently designated as *Urban and Built-up Land* by the California Department of Conservation's Farmland Mapping and Monitoring Program. The City has zoned the project sites as *Single-Family Medium Density (R1-7000),* which does not include agriculture as a permitted or conditionally permitted land use. Implementation of North Campoli and South Campoli residential projects will allow construction of 10 single family houses and 11 single family houses, respectively.

The North Campoli and South Campoli projects will not conflict with existing zoning for agricultural use or a Williamson Act contract. The project sites are not adjacent to other farmland and the proposed developments will not interfere with other agricultural operations or facilitate the conversion of farmland elsewhere in the Morgan Hill area to non-agricultural uses. The project sites are not forest resources, nor are there forest lands in their vicinity. For these reasons, the North Campoli and South Campoli projects will not impact agricultural or forest resources. **(No Impact)**

4.2.3 <u>Conclusion</u>

The North Campoli and South Campoli residential projects will not result in a significant impact to agricultural or forest resources. **(No Impact)**

4.3 AIR QUALITY

The following discussion is based in part upon a *Toxic Air Contaminant and Particulate Matter less than 2.5 micrometers ($PM_{2.5}$) Assessment* completed by Illingworth & Rodkin, Inc. in April 2012. A copy of this report is provided in Appendix A.

4.3.1 Setting

4.3.1.1 Regional Air Quality

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, and sunlight.

The project sites are within the San Francisco Bay Area Air Basin. 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_{10}), and fine particulate matter ($PM_{2.5}$). The Bay Area Air Quality Management District (BAAQMD) is the regional government agency that monitors and regulates air pollution within the air basin. The California Air Resources Board (CARB), which is part of the California Environmental Protection Agency, oversees regional air district activities and regulates air quality at the state level.

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursors react under certain meteorological conditions to form high ozone levels. Controlling these precursor pollutants is the focus of the Bay Area's attempt to reduce ozone levels. High ozone levels aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort.

Particulate matter is assessed and measured in terms of respirable particulate matter, or particles that have a diameter 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ 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, and result in reduced lung function growth in children.

In addition to ozone, $PM_{2.5}$, and PM_{10}, BAAQMD also monitors carbon monoxide (CO) which is a poisonous, colorless and odorless gas produced as a result of incomplete burning of carbon-containing fuels. Congested intersections with a large volume of traffic have the greatest potential to cause highly-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below state and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as in attainment for the standard.

As part of an effort to attain and maintain ambient air quality standards for ozone, PM_{10}, and $PM_{2.5}$, BAAQMD adopted thresholds of significance for precursor air pollutants in June 2010 (updated in May 2011). These thresholds are for ozone precursor pollutants (ROG and NO_x), PM_{10}, and $PM_{2.5}$. A project that generates more than 10 tons per year or 54 pounds per day of ROG, NO_x, or $PM_{2.5}$, or more than 15 tons per year or 82 pounds per day of PM_{10} is considered to have a significant operational and/or construction-related air quality impact, according to the BAAQMD thresholds of significance. BAAQMD has also established thresholds of significance for local CO (ozone precursor) emissions. A project that averages more than 9.0 parts per million (ppm) of CO emissions over an 8-hour period or 20 ppm of CO emissions over a 1-hour period, is considered to have a significant operational-related impact on the environment. There are no thresholds of significance for construction-related CO emissions adopted by BAAQMD.

Due to a recent Superior Court case ruling in Alameda County (*California Building Industry Association versus BAAQMD Case No. RG10548693*), BAAQMD was required to cease dissemination of the CEQA Air Quality Guidelines, pending review of the Guidelines under CEQA. BAAQMD has appealed this ruling. Ultimately, the thresholds of significance used to evaluate the proposed developments are determined by the Lead Agency, the City of Morgan Hill. Per CEQA Guidelines Section 15064.7, the City has elected to use the thresholds and methodology included in the May 2011 BAAQMD Air Quality Guidelines, as they are based on substantial evidence and remain the most up-to-date, scientifically-based method available to evaluate air quality impacts.

4.3.1.2 Local Air Quality

In addition to the criteria/precursor pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different TACs. Exposure to TACs can result from emissions from normal operations (i.e., vehicle operations), as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage and death.

Diesel exhaust 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, have been 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 BAAQMD adopted thresholds of significance for local community risk and hazard impacts apply to both the sighting of a new source and to the sighting of a new receptor. Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. If emissions of TACs or $PM_{2.5}$ exceed any of the thresholds of significance listed below, the proposed project will result in a significant impact:

- Non-compliance with a qualified risk reduction plan; or,

- An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e., chronic or acute) hazard index greater than 1.0 will be a cumulatively considerable contribution;
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$ will be a cumulatively considerable contribution.

The BAAQMD *CEQA Air Quality Guidelines* require that projects be evaluated for community risk when they are located within 1,000 feet of freeways, high traffic volume roadways (10,000 average annual daily trips or more), and/or stationary permitted sources of TACs.

The BAAQMD developed the Stationary Source Screening Analysis Tool which maps the locations of stationary permitted sources of TACs in the Bay Area. The BAAQMD screening tool does not show any stationary permitted TAC sources within 1,000 feet of the project sites. Both Monterey Road, an arterial roadway with over 10,000 average daily trips (ADT), and a Union Pacific Rail Road (UPRR) line are located within 1,000 feet of both project sites and; thus, the project sites are located within 1,000 feet of a TAC source, as defined above.

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 Guidelines has a list of common odor sources with associated screening distances. Projects that will place a new sensitive receptor farther than the applicable screening distance from an existing odor source will not likely result in a significant odor impact. There are no observed odor sources near the project sites.

4.3.1.4 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. Sensitive receptors in the project areas include adjacent residential developments and future residences in the proposed projects.

4.3.2 Environmental Checklist and Discussion of Impacts

AIR QUALITY						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project: 1) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	☐	1,2,5

AIR QUALITY						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐	☐	1,2,5,6
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?	☐	☒	☐	☐	☐	1,2,6
4) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐	☐	1,2,5,6
5) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐	☐	1,2

4.3.2.1 Impacts from the Projects

As previously described, a project that generates more than 10 tons per year or 54 pounds per day of ROG, NO_x, or $PM_{2.5}$, or more than 15 tons per year or 82 pounds per day of PM_{10} 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 proposed North Campoli project will construct 10 single-family residential units and the South Campoli project will construct 11 single-family residential units. The BAAQMD screening table shows that operation of a residential development results in ROG and NO_x exceeding their respective thresholds before $PM_{2.5}$ or $PM_{10.}$ The BAAQMD screening level for operational emissions related to a single-family residential development is 325 dwelling units (at which point NO_X may exceed the 10 tons per year or 54 pounds per day threshold). The North Campoli and South Campoli residential projects, which are substantially smaller than the screening levels established in the BAAQMD CEQA guidelines, will 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. **(Less Than Significant Impact)**

Local Air Pollutants - Carbon Monoxide from Project Traffic

As discussed above, the projects will have emissions that are less than significant according to the thresholds adopted by BAAQMD for evaluating impacts to ozone and particulate matter; therefore, the projects will not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from project-generated traffic will be the pollutant of greatest concern at the local level. There is an ambient air quality monitoring station in San Jose, California that measures carbon monoxide concentrations. The highest measured level over any 8-hour averaging period during the last three years is less than 2.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. BAAQMD screening guidance considers a project less than significant with respect to carbon monoxide levels if the addition of project trips will not cause traffic levels to increase at any affected intersection to more than 44,000 vehicles per hour. The North Campoli and South Campoli projects combined will generate less than 25 vehicle trips at any affected intersection during the busiest hour (see Section 4.16 *Transportation*); therefore, the contribution of project-generated traffic to these levels will be minimal, and the projects will not cause or contribute to a violation of an ambient air quality standard. **(Less Than Significant Impact)**

Consistency with Applicable Air Quality Plan

The most recent clean air plan is the *Bay Area 2010 Clean Air Plan* that was adopted by BAAQMD in September 2010. The proposed project will not conflict with the latest Clean Air planning efforts since; (1) the project will have emissions well below the BAAQMD thresholds as described above; (2) development of the project site will be considered urban "infill"; (3) development will occur near employment centers; and (4) development will be in proximity to existing transit with regional connections. The North Campoli and South Campoli projects are too small to incorporate project-specific transportation control measures listed in the latest Clean Air Plan (i.e., *Bay Area 2010 Clean Air Plan*). **(Less Than Significant Impact)**

Short-Term Air Quality Impacts

Construction Exhaust

The BAAQMD has adopted screening level thresholds for daily emissions related to construction. The BAAQMD screening table shows that construction of a residential development results in ROG exceeding its respective threshold before NO_x, $PM_{2.5}$ or PM_{10}. The BAAQMD screening level for emissions related to construction of a single-family residential project is 114 dwelling units (at which point ROG may exceed the 10 tons per year or 54 pounds per day threshold), and the screening level for emissions related to construction of a condo/townhouse residential project is 240 dwelling units (at which point ROG may exceed the 10 tons per year or 54 pounds per day threshold). Given the proposed project is smaller than the screening thresholds, project construction activities will not generate significant amounts of criteria/precursor air pollutants that will impact sensitive receptors or temporarily increase local pollutant levels. The North Campoli and South Campoli projects will not, therefore, result in significant short-term air quality impacts related to construction exhaust.
(Less Than Significant Impact)

Fugitive Dust Emissions

Construction activity is anticipated to include grading, building construction, paving and application of architectural coatings. During grading and excavations activities, dust will be generated. 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 land uses, especially those residences located immediately to the east, west and south of the North Campoli project site and north, west, and south of the South Campoli project site, could be adversely affected by dust generated during construction activities. BAAQMD considers these impacts to be less than significant if best management practices are employed to reduce these emissions. If left uncontrolled, dust generated by construction activities could be a significant impact.

Impact AIR-1 Construction-generated dust from the North Campoli or the South Campoli project site, if uncontrolled, could result in a short-term significant air quality impact. **(Significant Impact)**

Mitigation Measures: Both projects include the following mitigation measure to reduce project construction dust impacts to a less than significant level:

MM AIR-1 Implementation of the mitigation measures recommended by BAAQMD and listed below will reduce the air quality impacts associated with grading and new construction to a less than significant. In addition, these measures will reduce on-site equipment exhaust emissions. The lower emissions will reduce health risk impacts to existing residences that are nearby. The following construction practices shall be implemented during construction of the proposed residential projects:

- 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 mechanic and determined to be running in proper condition prior to operation.
- Avoid staging construction equipment adjacent to existing residences or sensitive receptors.
- 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.

  (Less Than Significant Impact with Mitigation)

Toxic Air Contaminants and Community Risk

The BAAQMD CEQA Air Quality Guidelines considers exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard to be significant. For cancer risk BAAQMD considers an increased risk of contracting cancer that is 10 in one million chances or greater to be significant for a single source. For cumulative exposure to TACs from existing sources affecting a sensitive receptor, in addition to a proposed new source; BAAQMD considers an increased risk of contracting cancer that is 100 in one million chances or greater to be significant. The BAAQMD CEQA Guidelines also consider exposure to annual $PM_{2.5}$ concentrations that exceed 0.3 micrograms per cubic meter ($\mu g/m^3$) from a single source to be significant and an annual $PM_{2.5}$ concentration that exceeds 0.8 $\mu g/m^3$ from cumulative sources to be significant.

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. As indicated previously, these exhaust air pollutant emissions will not be considered to contribute substantially to existing or projected air quality violations. There are residential developments located immediately adjacent to eastern, western and southern (single-family residence on the South Campoli site) boundaries of the North Campoli project site, and northern and southern boundaries of the South Campoli project site.

Existing residences are located immediately adjacent to the projects; thus a health risk assessment of the construction activity was completed to evaluate emissions of diesel particulate matter (DPM). Emissions and 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.

Construction period emissions were computed using the URBEMIS2007 model along with projected construction activity. The URBEMIS2007 model provided a $PM_{2.5}$ exhaust emissions (assumed to be DPM) rate of 0.062 tons per year for off-road construction equipment used for the construction of 36 single-family units (30 detached and 6 attached units) during the first construction season of the approved adjacent project (Hale-Signature Homes). Since the North Campoli and South Campoli projects will require less off-road construction equipment usage, as the number of combined units to be constructed (21 units) is less than 36 units, the $PM_{2.5}$ exhaust emissions rate for the construction of the North Campoli and South Campoli projects will amount to less than 0.062 tons per year.

The U.S. EPA ISCST3 dispersion model was used to predict concentrations of DPM at existing residences surrounding the project sites. Emissions for each for construction years 2013 through 2015 were modeled. These emissions were modeled as occurring between 7 am - 4 pm. The model used a five-year data set of hourly meteorological data collected at San Martin Airport. Annual DPM concentrations from construction activities, based on the five-year average concentrations from modeling five years of meteorological data, were predicted for each construction year. Increased cancer risks were calculated using the maximum modeled annual concentration and BAAQMD recommended risk assessment methods for both a child exposure (third trimester through two years of age) and for an adult exposure. Results of this assessment indicate an incremental child cancer risk of less than 9.4 excess cancer cases per million and the adult incremental cancer risk would be less than 0.5 excess cancer cases per million. This cancer risk is below the BAAQMD's threshold of 10 in one million excess cancer cases per million. As a result, the North Campoli and South Campoli projects will have a less than significant impact with respect to community risk caused by construction activities. **(Less Than Significant Impact)**

The effects of the nearby projects do not exceed BAAQMD thresholds for construction projects. As a result, the cumulative TAC would also not exceed the BAAQMD thresholds.
(Less Than Significant Impact)

4.3.2.2 Impacts to the Projects

As described previously, the BAAQMD CEQA Air Quality Guidelines requires that projects be evaluated for community risk when they are located within 1,000 feet of freeways, high traffic volume roadways (10,000 average annual daily trips or more), and/or stationary permitted sources of TACs.

Stationary sources of TAC emissions were identified using the BAAQMD Stationary Source Screening Analysis Tool.[6] Stationary sources affecting the project site were not identified within 1,000 feet of the site. Both Monterey Road and a Union Pacific Rail Road (UPRR) line are located within 1,000 feet of the project sites and will be considered a significant TAC source. These nearby TAC sources may affect new residents, which are considered sensitive receptors. Computer modeling was conducted for the site (Hale-Signature Homes site) adjacent to the North Campoli project to assist in assessing the risk of exposure to TAC emissions from these two sources. The findings from these assessments also apply to new residents at the North Campoli and South Campoli project sites. The sources are described and evaluated below in accordance with BAAQMD CEQA Air Quality Guidelines.

Existing Sources of Air Pollution – Monterey Road

Busy roadways are a source of TAC emissions that could affect new sensitive receptors developed at the project site. Monterey Road is a busy arterial roadway near the project sites with over 10,000 average daily traffic trips (ADT). There are 39,300 daily trips on Monterey Road (two-way),

[6] Bay Area Air Quality Management District. *Stationary Source Screening Analysis Tool*. Available at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. Accessed October 3, 2012.

between Peebles Avenue and Madrone Parkway according to City's General Plan Circulation Element traffic study. New residences developed by the projects will be approximately 120 feet or further from this roadway. The BAAQMD provides screening tables that indicate predicted community risk impacts that roadways pose. At 100 feet from the Monterey Road, the screening tables indicate cancer risk will be less than 7.2 chances per million and $PM_{2.5}$ concentrations will be less than 0.26 $\mu g/m^3$. Since new residences will be further than 100 feet from Monterey Road, cancer risk and $PM_{2.5}$ levels should also be less than these levels. The levels are below BAAQMD's thresholds for significant community risk impacts (cancer risk of 10 chances per million and increase of $PM_{2.5}$ concentrations greater than 0.3 $\mu g/m^3$). **(Less Than Significant Impact)**

Existing Sources of Air Pollution – Railroad Emissions

The UPRR line runs parallel to Monterey Road and approximately 250 feet east of the North Campoli project site and is adjacent to the eastern property boundary of the South Campoli project site. This rail line is used by trains for passenger and freight service. Along this portion of the UPRR line Caltrain operates three trains per weekday between Gilroy and San Jose in each direction, Amtrak has one passenger train daily and there about six freight trains daily.

Diesel particulate matter (DPM) and $PM_{2.5}$ emissions from trains on the UPPR rail line were calculated using EPA emission factors for locomotives and CARB adjustment factors to account for fuels used in California. Locomotive emissions were modeled as a line source (series of volume sources) along the rail line in the vicinity of projects. The maximum modeled long-term DPM concentrations occurred at the projects' receptors closest to the railroad line.

<u>Railroad Cancer Risks</u>

Using the maximum modeled long-term average DPM concentration, the maximum individual cancer risk at the project site was computed using the most recent methods recommended by BAAQMD and the California Office of Environmental Health Hazard Assessment (OEHHA). The factors used to compute cancer risk are highly dependent on modeled concentrations, exposure period or duration, and the type of receptor. The exposure level is determined by the modeled concentration; however, it has to be averaged over a representative exposure period. The averaging period is dependent on many factors, but mostly the type of sensitive receptor that will reside at a site. This assessment conservatively assumed long-term residential exposures. OEHHA has developed exposure assumptions for typical types of sensitive receptors. These include nearly continuous exposures of 70 years for residences. It should be noted that the cancer risk calculations for 70-year residential exposures reflect use of BAAQMD's most recent cancer risk calculation method, adopted in January 2010. This method applies BAAQMD recommended Age Sensitivity Factors to the cancer risks for residential exposures, accounting for age sensitivity to toxic air contaminants. Age-sensitivity factors reflect the greater sensitivity of infants and children to cancer causing TACs. This analysis, therefore, presents the most conservative cancer risk for various types of exposures.

The maximum increased cancer risk from train traffic was computed as 4.2 per million. This was modeled at the receptor closest to railroad line, about midway along the northeastern portion of the

site closest to Monterey Road. Cancer risks at other residential areas within the project sites should be lower than the maximum cancer risk of 10 chances in a million. **(Less Than Significant Impact)**

$PM_{2.5}$ Concentrations

In addition to evaluating the health risks from DPM, potential impacts from $PM_{2.5}$ emissions from the locomotives traveling on the rail line in the vicinity of the project sites were evaluated. From the rail line modeling conducted for estimating cancer risks, the maximum $PM_{2.5}$ concentration was identified. The maximum average $PM_{2.5}$ concentration of 0.03 $\mu g/m^3$ occurred at the same receptor that had the maximum cancer risk. This concentration is well below the BAAQMD $PM_{2.5}$ threshold of 0.3 $\mu g/m^3$. **(Less Than Significant Impact)**

Railroad Non-Cancer Health Effects

Potential non-cancer health effects due to chronic exposure to DPM were not estimated since the concentration threshold for non-cancer effects is considerably higher than concentrations that will result in cancer risks that were described above. The chronic inhalation reference exposure level (REL) for DPM is 5 $\mu g/m^3$. The maximum predicted annual DPM concentration from locomotives is 0.02 $\mu g/m^3$, which is much lower than the REL.[7] Thus, the Hazard Index (HI), which is the ratio of the annual DPM concentration to the REL, will be much lower than significance criterion of a HI greater than 1.0.

Maximum predicted annual average $PM_{2.5}$ concentrations for emission during 2013, is below 0.1 $\mu g/m^3$. Under the BAAQMD CEQA Air Quality Guidelines, an incremental increase greater than 0.3 $\mu g/m^3$ at a single source at the Maximally Exposed Individual (MEI) will be a significant impact. **(Less Than Significant Impact)**

Cumulative TAC Sources

Table 4.3-1 summarizes TAC sources and their impact upon project sensitive receptors and existing sensitive receptors. BAAQMD significance thresholds for single and cumulative TAC sources are included. As shown in Table 4.3-1, no single source will have community risk impacts that exceed BAAQMD thresholds. Cumulative sources will also not exceed the significance thresholds. **(Less Than Significant Impact)**

[7] Illingworth & Rodkin, Inc. *Hale-Signature Residential Development Project in Morgan Hill, CA - Air Quality and GHG Emissions Analyses*. April 2012.

Table 4.3-1
Community Risk Impacts to the Maximally Exposed Receptors

Source	Closest Distance (feet)	Maximum Cancer Risk[3] (per million)	Maximum Hazard Index	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Project Sensitive Receptors				
UPRR Railroad[1]		4.2		0.03
Monterey Road	>100	7.2	<0.1	0.26
Sum		***<11.4***	***<0.1***	***<0.29***
Existing Sensitive Receptors				
Construction Impacts - MEI		9.4	<0.1	0.06
UPRR Railroad[1]		4.2	<0.1	0.03
Monterey Road	>100	7.2	<0.1	0.26
Sum		***<20.8***	***<0.1***	***<0.35***
BAAQMD Threshold - Single Source		***10***	***1.0***	***0.3***
Significant?		***No***	***No***	***No***
BAAQMD Threshold - Cumulative		***100***	***10.0***	***0.8***
Significant?		***No***	***No***	***No***

Notes:
[1] Based on project-specific modeling of railroad emissions.
[2] Based on BAAQMD roadway screening tables for north-south roadways: Monterey Road.
[3] The risks reported represent lifetime cancer risks and annual $PM_{2.5}$ concentrations.
MEI = maximum exposed individual

Odors

The projects will generate localized emissions of diesel exhaust during equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. However, the emissions will be localized and are not likely to adversely affect people off site in that they will not result in confirmed odor complaints. The project sites are not affected by existing odor sources that will cause odor complaints from new residents. This will be a less than significant impact. **(Less Than Significant Impact)**

4.3.3 Conclusion

The proposed North Campoli and South Campoli projects will not result in significant long-term regional or local air quality impacts. Short-term air quality impacts associated with construction will be reduced to less than significant levels with the implementation of the mitigation measure listed above. The projects are small enough and located in an infill site near job center and urban services such that it will not obstruct the *Bay Area 2010 Clean Air Plan*, and it will not violate any air quality standard. **(Less Than Significant Impact with Mitigation)**

4.4 BIOLOGICAL RESOURCES

The following discussion is based upon a *Biological Constraints Analysis* prepared in February, 2013, by Live Oak Associates, Inc. The report is attached to this Initial Study as Appendix B.

4.4.1 Setting

The North Campoli project site is approximately 2.04 acres and the South Campoli project site is approximately 2.35 acres in size. The project sites are relatively level with an approximate elevation of 350 feet above mean sea level (msl). Fisher Creek is located along the western boundary of the South Campoli project site. The North Campoli project site has not been developed and consists of a vacant field with non-native annual grasslands, and trees. The South Campoli project site was part of a dairy farm until the 1980s; the project site currently consists of one residence, a vacant field with non-native annual grasslands, and trees. On-site habitats for the project sites are described below.

4.4.1.1 On-site Habitats

Non-Native Annual Grasslands

Vegetation

The North Campoli and South Campoli project sites support non-native annual grassland, mostly comprised of ruderal forbs such as wild oat mostly comprised of ruderal forbs such as wild oat, black mustard, yellow star thistle, summer mustard, redstem filaree, foxtail barley, serrated lettuce, mallow, sweet pea, bur clover, milk thistle, English plantain, and purple salsify on both project sites. Remnant crop vegetables such as chard/beet and squash/pumpkin have been observed on the South Campoli project site. Disturbed annual grassland habitat of the South Campoli project site occurs up to the edge of the driveway and surrounding the house and yard areas.

The South Campoli project site consists of the following trees: one coast live oak, several walnut trees, one almond, one olive, one magnolia, and one toyon. The North Campoli project site consists of one small oak tree and six walnut trees.

Wildlife

Common wildlife species that inhabit grasslands along the fringe of urban development occur on and adjacent to the North Campoli and South Campoli project sites. Wildlife surveys were conducted on the South Campoli project site in April 2012 and June 2012. The wildlife observed included the western fence lizard, mourning dove, American crow, northern mockingbird, house finch, lesser goldfinch, cat, and evidence of both California voles and Botta's pocket gophers in the form of a few small burrows and digs.

Seasonal Drainage (Fisher Creek)

Vegetation

Fisher Creek is a narrow, low-order, channelized creek that carries water north into Coyote Creek. During the April 2012 and June 2012 surveys conducted by Live Oak Associates, minimal water was present in the creek. Only shallow puddles of standing water in the creek were observed in June 2012.

The banks of the creek support a dense covering of Himalayan blackberry. The bed and lower banks support wetland species, including tall flatsedge, slender willow herb, Baltic rush, and water beard grass. Southwest of the South Campoli project site, on the top of the western bank of the creek, was a row of Chinese privets. The South Campoli project site bank completely lacked a riparian tree canopy; therefore, the top-of-bank (noted as the edge of blackberry for most of the bank) was determined to be the outer edge of the riparian habitat.

Wildlife

Wildlife associated with Fisher Creek comprises of mostly the same species expected to inhabit the non-native annual grassland due to the presence of similar vegetation.

4.4.1.2 Regulatory Overview (Biological Communities)

Waters

Clean Water Act

The Regional Water Quality Control Board (RWQCB) has regulatory authority over wetlands and waterways under both the federal Clean Water Act (CWA) and the State of California's Porter-Cologne Water Quality Control Act (California Water Code, Division 7). Under the CWA, the RWQCB has regulatory authority over actions in waters of the United States, through the issuance of water quality certifications (certifications) under Section 401 of the CWA, which are issued in conjunction with permits issued by the United States Army Corps of Engineers (USACE), under Section 404 of the CWA. Federal authority is exercised whenever a proposed project requires a CWA Section 404 permit from the US Army Corps of Engineers (USACE) in the form of a Section 401 Water Quality Certification. Areas subject to the jurisdiction of the USACE are those meeting the regulatory definition of "Waters of the US" and are under provisions of Section 404 of the 1972 Clean Water Act (Federal Water Pollution Control Act). Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual*.[8] When the RWQCB issues Section 401 certifications, it simultaneously issues general Waste Discharge Requirements for the project, under the Porter-Cologne Water Quality Control Act. Activities in areas that are outside of the jurisdiction of the USACE (e.g., isolated wetlands, vernal pools, seasonal streams, intermittent streams, channels that lack a nexus to navigable waters, or stream banks above the ordinary high water mark) are regulated by the RWQCB, under the authority of the Porter-Cologne Water Quality

[8] U.S. Army Corps of Engineers. *Corps of Engineers Wetlands Delineation Manual*. January 1987.

Control Act. Activities that lie outside of USACE jurisdiction may require the issuance of either individual or general waste discharge requirements (WDRs).

Fisher Creek, a jurisdictional wetland, is a potential movement corridor for wildlife species in the area. Fisher Creek, adjacent to the South Campoli project site, is a channelized stream conveying runoff from a natural watershed which is a tributary to Coyote Creek. As such, Fisher Creek is regulated by the RWQCB (CWA Section 401) and USACE (CWA Section 404). There are no areas on the North Campoli site that consist of jurisdictional waters of the United States or waters of the State (e.g., wetland, streams, creeks, etc.).

California Department of Fish and Wildlife Jurisdictional Habitats

Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species and California Department of Fish and Wildlife[9] (CDFW) Species of Special Concern, areas of high biological diversity, areas providing important wildlife habitat, and unusual or regionally restricted habitat types. Habitat types considered sensitive include those listed on the California Natural Diversity Data Base's working list of "high priority" habitats (i.e., those habitats that are rare or endangered within the borders of California).

The presence of the Fisher Creek bed and bank on the South Campoli project site means that the creek is regulated by the CDFW under Section 1600 of the Fish and Game Code. The CDFW also has jurisdiction over the bed and bank of Fisher Creek's natural drainages, according to provisions of Section 1601 and 1602 of the Fish and Game Code. Activities that would disturb these drainages would be regulated by the CDFW by way of a Streambed Alteration Agreement. This type of agreement usually stipulates that certain measures will be implemented that protect the habitat values of the natural drainage in question.

Local Policies

In August 2007, the Morgan Hill City Council approved Resolution 6112, which formally adopted the Santa Clara Valley Water Resources Protection Collaborative (Collaborative) Guidelines and Standards for Land Use Near Streams. The Collaborative was a group comprised of 15 cities, Santa Clara County, Santa Clara Valley Water District, and a variety of other interest groups. The Collaborative established guidelines and standards with the goal of flood management, drinking water quality and quantity, surface and groundwater quality and quantity, and habitat protection. The guidelines and standards establish a 20 foot building setback from the top of bank, which would apply to Fisher Creek

Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan

The North Campoli and South Campoli project sites are located within the Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP), which has been approved by the local partners, but is not yet effective pending additional future actions by local,

[9] Formerly California Department of Fish and Game (CDFG).

state, and federal agencies. The HCP/NCCP's "Effective Date" (or operative date) is the first business day after all of the following has occurred:

- Execution of the Implementing Agreement by all Parties;
- Issuance of both State and Federal Permits;
- Adoption of an implementing ordinance by each of the three Cities and the County;
- Formation of the Implementing Entity (Santa Clara Valley Habitat Agency); and
- The effective date of the impact fee ordinance to be adopted by the Habitat Agency

The effective date of the HCP/NCCP is anticipated to be in the Fall of 2013.

With respect to the HCP/NCCP, the proposed projects are anticipated to be "pipeline projects" which refers to development projects, or portion thereof, that are in the process of receiving local jurisdiction approvals at the time the HCP/NCCP is effective. Pipeline projects will not be subject to the HCP/NCCP if all of the following apply:

1) it has received at least one of the following approved development entitlements with a specified expiration date (including allowed renewals/extensions) prior to HCP/NCCP adoption: site and architectural permit/approval, planned development approval, conditional use approval, or a tentative map;

2) it is issued a grading or building permit within 1 year of issuance of the HCP/NCCP's state and federal incidental take permits; and

3) the project review process identified no impacts to any of the HCP/NCCP's covered species.

The projects are anticipated to receive planned development and tentative map approval in Spring 2013 and grading and building permits in Summer or Fall of 2013. The analysis of biological impacts in this Initial Study (see Section 4.4 *Biological Resources*) has identified no impacts to any of the HCP/NCCP's covered species. For these reasons, it is anticipated that the projects will be deemed as pipeline projects with respect to the HCP/NCCP. Should the projects not be determined to be pipeline projects and, therefore, subject to the HCP/NCCP, the South Campoli project would likely be subject to provisions related to the presence of Fisher Creek in the form of construction setbacks. This would likely include a 35-foot development-free setback from riparian corridor habitat due to the fact that Fisher Creek would be considered a Category 2 stream. A per-acre land cover impact fee may also be applicable. This fee would be imposed on the acreage of all project components including structures, driveway, and landscaping, plus a 50-foot buffer around these components (not extending to areas outside of the property).

4.4.1.3 Regulatory Overview (Wildlife Species)

Migratory Birds

The Federal Migratory Bird Treaty Act (MBTA) prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The trustee agency that addresses issues related to the MBTA is the US Fish and Wildlife Service (USFWS). Species of birds protected under the MBTA include all native birds and certain game birds. The MBTA protects whole birds, parts of birds, bird eggs, and nests and prohibits the possession of all nests of protected bird species whether they are active or inactive. An active nest is defined as a nest that contains eggs or young. Birds protected by the MBTA may be present in the grassland habitat and/or in any of the trees located on the North Campoli and South Campoli project sites.

4.4.1.4 Regulatory Overview (Special-Status Species)

The CEQA requires assessment of the effects of a project on species that are protected by State, Federal, or local governments as "threatened, rare, or endangered"; such species are typically described as "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 CDFW Species of Special Concern generally have no protected legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected under the MBTA (described above). 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.

To determine special-status plant and wildlife species likely to occur at the North Campoli and South Campoli project sites, a database search was completed using primarily the California Natural Diversity Data Base (CNDDB) which is maintained by the Wildlife and Habitat Data Analysis Branch of the CDFW. A summary of the relevant database results is described below.

Special-Status Plant Species

A total of 14 special-status plant species were identified during the CNDDB search as having the potential to occur on the South Campoli project site or within the project site's vicinity (see Table A-1 of Appendix B of this Initial Study for a complete list). These special-status plant species were evaluated and it was determined that most of the plant species are not likely to occur on the South Campoli project site or within the vicinity of the project site, due to a lack of suitable native habitats and/or a lack of micro-habitat conditions (e.g., vernal pools, undisturbed serpentine soils and/or alkaline soils).

Based on observations from the *Biological Constraints Analysis*, it is possible for smooth lessingia, a CNPS 1B special-status plant species, to occur on the North Campoli and South Campoli project sites. Smooth lessingia is classified by the CNPS as a rare, threatened or endangered species. This

species often occurs in disturbed serpentine soils, and is known to occur within the serpentine hills immediately west of the project site. The North Campoli and South Campoli project sites have a portion of disturbed serpentine soils and could serve as a habitat for smooth lessingia.

Special-Status Wildlife Species

As described above, special-status wildlife species include those listed as Rare, Threatened, or Endangered under the Federal ESA, as well as those species covered by the MBTA, or those species given special protection by the State of California.

A total of 18 special-status animal species were identified during the CNDDB database search as having the potential to occur on-site (see Table A-2 of Appendix B of this Initial Study for a complete list). The 18 special-status animal species were evaluated at the South Campoli project site, and it was determined that most of these species are not likely to be present at the project site due to a lack of suitable habitat.

The following species were not observed on the North Campoli or South Campoli project site, but could possibly breed and/or forage at the site:

White-tailed Kite

The white-tailed kite is designated by the CDFW as a California-protected species. This species typically breeds and forages in open grasslands and agricultural areas in central California. Potentially suitable breeding and foraging habitat for this species is present on the North Campoli and South Campoli project sites and surrounding lands.

Pallid Bat

The pallid bat is designated by the CDFW as a California Species of Special Concern. This species typically forages in the grasslands, chaparral, woodlands, and forests of California. Potentially suitable foraging habitat, specifically grassland, is present on the North Campoli and South Campoli project sites.

Western Burrowing Owl

Potential habitat for western burrowing owls occurs on the project sites in the form of grassland habitat; however, the quality of this potential habitat is considered marginal. Although no owls or evidence of burrowing owls was observed during April and June 2012 surveys, the project sites maintain a small fossorial rodent population, which provide both a prey base and could provide suitable burrows for the owls. No sightings of the species have been documented on or adjacent to this property; however, the burrowing owl may pass through the project sites periodically, and may, in the future, overwinter and/or breed on the project sites.

Nesting Raptors and Other Migratory Birds

Trees occurring on and adjacent to the North Campoli and South Campoli project sites could be used by tree-nesting raptors and other migratory birds for breeding. Most nesting migratory birds are protected by State of California and Federal laws. Consequently, project-related activities that adversely affect the nesting success of raptors and other migratory birds (i.e., tree removal) or result in mortality of individual birds could be considered a violation of State of California and Federal laws.

4.4.1.5 Regulatory Overview (Significant Trees)

City of Morgan Hill Tree Removal Controls

The City of Morgan Hill defines a significant tree as "any live woody plant rising above the ground with a single stem or truck of a circumference of 40 inches or more for non-indigenous species, and 18 inches or more for indigenous species measured at 4.5 feet vertically above the ground or immediately below the lowest branch, whichever is lower..." Trees which are indigenous to the City include all types of oak trees, madrones, sycamore, alder and California bays. All commercial tree farms, non-indigenous tree species in residential zones and orchards (including individual fruit trees) are exempted from the definition of a significant tree.

Prior to the removal of any tree protected under the City of Morgan Hill Tree Removal Controls, a tree removal permit is required from the Community Development Director which includes a description of the tree replacement program and identification of any conditions imposed by the City. There are currently no currently significant trees and, therefore, no trees protected under the City's Tree Removal Controls, on the North Campoli and South Campoli sites. Tree removal permits will not be required for the existing trees on these sites.

4.4.2 Environmental Checklist and Discussion of Impacts

BIOLOGICAL RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information 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 U.S. Fish and Wildlife Service?	☐	☒	☐	☐	☐	1,2,3
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 U.S. Fish and Wildlife Service?	☐	☐	☒	☐	☐	1,2,3
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?	☐	☒	☐	☐	☐	1,2,3
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?	☐	☒	☐	☐	☐	1,2,3
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐	☐	1,2,3

BIOLOGICAL RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project: 6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	☐	1,2,3,7

4.4.2.1 Impacts to Habitat

The North Campoli and South Campoli project sites are comprised primarily of non-native annual grassland habitat. The projects will not significantly impact any riparian habitat, native grasslands, or other sensitive natural communities. **(Less Than Significant Impact)**

The proposed units on the South Campoli project are approximately 37 feet from the top of bank of Fisher Creek. Given the disturbed and channelized nature of the creek, and lack of riparian vegetation beyond the top of bank, this distance provides adequate protection for its aquatic and riparian habitats. Based on the Santa Clara Valley HCP/NCCP, Fisher Creek is a Category 2 stream, as it is seasonal and intermittent. If the HCP/NCCP is in effect prior to the issuance of project site grading permits, the required setback would be 35 feet (Category 2 stream setback requirement) in accordance with the HCP/NCCP, which the plan achieves. Land use activities that will be prohibited within the setback area include: unauthorized grading, lighting, paving, and the construction or placement of structures within the area.

Implementation of the North Campoli and South Campoli Residential projects will not conflict with the provisions of the adopted HCP/NCCP, or other approved local, regional, or state habitat conservation plan. **(Less Than Significant Impact)**

Fisher Creek is regulated by the RWQCB (Section 401) and USACE (Section 404) under the Federal CWA, and by the CDFW under Section 1600 of the Fish and Wildlife Code. Proposed residential development on the South Campoli site includes a 30-foot development-free setback from the top-of-bank of Fisher Creek (which is also the edge of the riparian habitat); therefore, no significant impacts are anticipated to jurisdictional waters. Grading and excavation activities during construction will expose soil to increased rates of erosion. Surface water runoff could remove particles of fill or excavated soil from the site if the flows are not controlled. Deposition of eroded material in water features, including Fisher Creek could increase turbidity, thereby endangering aquatic life, and reducing the wildlife habitat at the South Campoli site.

Development of the South Campoli project site, which is adjacent to Fisher Creek, will use best management practices (BMPs) approved in the Storm Water Pollution Prevention Plan (SWPPP)

which is required as part of the project to reduce impacts to water quality in the area (for further discussion see section 4.8, *Hydrology and Water Quality*). **(Less Than Significant Impact)**

4.4.2.2 Impacts to Special-Status Plant Species

As previously described, there are no special-status plant species likely to occur on the project sites due to a high level of disturbed soils on the North and South Campoli project sites. Although it is not likely, it is possible for smooth lessingia, which is known to occur in the region on disturbed serpentine soils, to occur on the North Campoli and South Campoli project sites.

Impact BIO-1 Construction activities associated with residential development on the project sites could result in the incidental loss of smooth lessingia, classified by the CNPS as a rare, threatened, or endangered species. **(Significant Impact)**

Mitigation Measures: The following mitigation measures shall be implemented for the North Campoli and South Campoli projects to minimize potential adverse impacts to smooth lessingia:

MM BIO-1.1 Focused rare plant surveys by a qualified biologist shall be conducted for smooth lessingia prior to ground disturbance on the North Campoli and South Campoli project sites and during their appropriate blooming period (typically July through November[10]). Prior to issuance of a building permit or on-site or off-site improvements (including rough grading work), a report documenting the survey shall be submitted to the Community Development Agency.

MM BIO-1.2 If the focused rare plant surveys determine that smooth lessingia is present with a population representing a significant ecological size (greater than or equal to 40 individuals) on the project sites, the project proponent will consult with a qualified biologist to develop and implement an offsite restoration plan (approved by the City) in order to replace the plants and habitat lost during construction. The live plants shall be removed and relocated to an appropriate off-site location under the care of a qualified botanist; the relocated plants shall be adaptively managed for a minimum of five years. The restoration shall be initiated within one year of the impact and seed collection from the impacted population shall occur prior to the impact. If smooth lessingia is discovered on the sites when the HCP is effective, the project proponent will pay any associated development fees required for removal of the plant(s) from either site. **(Less Than Significant Impact with Mitigation)**

[10] County of Santa Clara, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, City of San Jose, City of Gilroy, City of Morgan Hill, California Department of Fish and Game, and the U.S. Fish and Wildlife Service. Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) Project. *Final Santa Clara Valley Habitat Plan. Species Accounts. Smooth Lessingia.* August 2012. Available at: <www.scv-habitatplan.org/www/default.aspx>. Accessed October 3, 2012.

4.4.2.3 Impacts to Nesting Raptors and Other Migratory Birds

The North Campoli and South Campoli project sites could be used by raptors for foraging purposes. The City of Morgan Hill has substantial open space, including open space to the west across Hale Avenue. Because of the presence of nearby open-space foraging areas, development of the project site with residential land uses will not adversely affect wildlife species that use the project sites for foraging. **(Less Than Significant Impact)**

Construction activities at the project sites could result in vegetation removals that could directly destroy nests, eggs, and habitat for birds, including raptors and sensitive species such as migrating songbirds. Measures shall be implemented to protect eggs and nestlings from construction disturbances and to make the project compliant with the MBTA and California Fish and Game Code.

Impact BIO-2 Construction activities associated with residential development on the project sites could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. **(Significant Impact)**

Mitigation Measures: The following mitigation will reduce impacts from construction at the North Campoli and South Campoli project sites to raptors and migratory bird eggs and nestlings.

MM BIO-2.1 Construction shall be scheduled to avoid the nesting season to the extent feasible. If construction can be scheduled to occur between 1 September and 31 January (inclusive) to avoid the raptor and migratory bird nesting season, no impacts will be expected.

MM BIO-2.2 If construction will take place between February and August, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. Surveys will be completed no more than seven (7) days prior to the initiation of site clearing or construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a disturbance-free buffer zone to be established around the nest (typically 250 feet for raptors and 50-100 feet for other species), to ensure that no nests of species protected by the Migratory Bird Treaty Act and California Fish and Wildlife Code will be disturbed during project implementation.

MM BIO-2.3 A report indicating the result of the survey and any designated buffer zones shall be submitted to the satisfaction of the Director of Community Development prior to the start of construction.
(Less Than Significant Impact with Mitigation)

4.4.2.4 Impacts to Special-Status Animal Species

As previously described, most of the special-status animal species with the potential to occur on the project sites are not present due to a lack of suitable habitat. There are several special-status species, such as the black swift, golden eagle, pallid bat and white-tailed kite that could forage and possibly breed on the sites. The loss of potential breeding and foraging habitat, however, would be considered a less than significant impact since similar and higher quality habitat is abundant in the region. The acreage and trees that will be developed or loss, make up a small portion of this type of habitat in the region. Therefore, loss of this foraging and breeding habitat would not constrain future development. (**Less Than Significant Impact**)

Western Burrowing Owl

During the reconnaissance field survey no western burrowing owls were observed at the project sites and no sightings of the owls have been documented on or adjacent to the project sites. If a burrowing owl were to nest in the proposed project areas prior to the onset of construction, construction activities could lead to the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success or result in mortality of individual owls would be considered a significant impact.

Impact BIO-3 Development of the project sites with residential land uses could result in the loss of burrowing owls and/or their habitat. **(Significant Impact)**

Mitigation Measures: The following mitigation measure shall be implemented to minimize potential adverse impacts on western burrowing owls:

MM BIO-3.1 In conformance with the City of Morgan Hill Burrowing Owl Habitat Mitigation Plan, the following will be implemented as part of the project to avoid direct impacts to burrowing owls and to offset impacts to their grassland habitat.

- Burrowing owl pre-construction surveys shall be completed to determine if burrowing owls are present within the footprint of the proposed grading area, no more than seven (7) days prior to the initiation of site clearing or construction activities.
- Should burrowing owls be found on the site during breeding season (February 1 through August 31), exclusion zones with a 250-foot radius from occupied burrows, shall be established. All project-related activities shall occur outside the exclusion area until the young have fledged.
- If pre-construction surveys are completed during the non-breeding season and burrowing owls are observed on the site, the owls may be relocated upon approval of the California Department of Fish and Wildlife once mitigation has been provided.
- A final report on burrowing owls, including any protection measures, shall be submitted to the Director of Community Development prior to grading.

- The applicant shall pay the established burrowing owl impact fee prior to final building permit inspection.
  (Less Than Significant Impact with Mitigation)

4.4.2.5 Impacts Related to Tree Removal

There are no trees on the North Campoli and South Campoli that are designated as significant based on the City of Morgan Hill's Municipal Code. The North Campoli site currently has seven existing trees and the South Campoli has 19 existing trees. Trees on the sites are either below the City's ordinance-size standards or are not subject to the size standards outlined in the City's Municipal Code, Chapter 12.32. Additionally, removed trees will be replaced with new trees on both sites. For these reasons, impacts from the projects related to tree removal will be less than significant.
(Less Than Significant Impact)

4.4.3 Conclusion

Implementation of the project-specific mitigation measures will avoid or mitigate significant impacts to biological resources. **(Less Than Significant Impact with Mitigation)**

4.5 CULTURAL RESOURCES

The following discussion is based on a *Cultural Resources Study* completed for the North Campoli and South Campoli project sites by Holman & Associates in July 2012. This report is attached to the back of this Initial Study as Appendix C.

4.5.1 Setting

The North Campoli and South Campoli project sites are not located in archaeological sensitive areas, based on the City of Morgan Hill Archaeological Sensitivity Map dated April 2000.[11] An archaeological literature review was completed for the North Campoli and South Campoli project sites to determine if any historic or prehistoric sites have been recorded on or in the vicinity of the project area. Based on the literature review, there have been no recorded historic or prehistoric findings on or adjacent to the project sites.

A field inspection was completed to inspect for surficial evidence of historic or prehistoric cultural resources. The open portions of both sites were covered by a dense covering of high non-native grasses. No archaeological deposits were found in the visible soils, which consisted of silty clay loam. There was no evidence of either historic or prehistoric archaeological resources found on either of the project sites.

The North Campoli project site is undeveloped and has no historical structures of significance on-site. The South Campoli project site is developed with a single-family house that was constructed in 1947. The single-story house is a wood-frame ranch style construction with an attached garage. The exterior of the house has been modified through multiple physical additions. While the house is over 50 years of age, it is not identified as a potential historic resource, based on an archaeological survey completed for the City of Morgan Hill[12] and the City's General Plan. In addition, based on research completed on October 26, 2012 at San Jose State's Martin Luther King Jr. Public Library's California Room, the building is not listed in historical City Directories and is not listed as a historical resource, nor is it associated with person(s) or events of importance to the history of California or City of Morgan Hill.

[11] City of Morgan Hill. *Archaeological Sensitivity Map*. April 2000.
[12] Basin Research Associates, Inc. *Cultural Resources Supplement. List II-1: Summary of Recorded and Selected Potential Archaeological Sites in the City of Morgan Hill and Morgan Hill Sphere of Influence*. April 2000.

4.5.2 Environmental Checklist and Discussion of Impacts

CULTURAL RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
1) Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	☐	☐	☐	☒	☐	1,2
2) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	☒	☐	☐	☐	1,2,8
3) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	☐	☐	☐	☒	☐	1,2
4) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐	1,2,8

4.5.2.1 Cultural Resources Impacts

There are no known historic or prehistoric resources located on or adjacent to the North Campoli or South Campoli project sites. There are also no recorded historic or prehistoric archaeological deposits on or adjacent to the project sites; the lack of prehistoric/historic resources in the general vicinity reconfirms the low cultural sensitivity of the project area.

The project area is not known to contain any paleontological resources; however, paleontological resources could exist.

While the potential for discovery of buried cultural resources on the project site is low, it is possible, however, that earthmoving activities associated with the proposed residential developments could result in the exposure or destruction of unknown subsurface cultural resources.

Impact CUL-1 Implementation of the North Campoli and South Campoli projects could result in the destruction of unknown archaeological or paleontological resources. **(Significant Impact)**

Mitigation Measures: In the unlikely event that cultural materials are found during site grading or excavation, the following City standard measures will reduce cultural resource impacts to a less than significant level:

MM CUL-1.1 In the event that known or suspected Native American remains are encountered or significant historic or archaeological materials are discovered, the following measures will be implemented:

- Ground-disturbing activities shall be immediately stopped if suspected Native American remains and/or significant historic or archaeological materials are discovered. 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 or discovery, by the Monitoring Archaeologist (typically 25-50 ft. 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: 1) the City of Morgan Hill Community Development Director; 2) the Contractor's Point(s) of Contact; 3) The Coroner of the County of Santa Clara (if human remains found); 4) The Native American Heritage Commission (NAHC) in Sacramento; and 5) The Amah Mutsun Tribal Band.

- If human remains are discovered, 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.

MM CUL-1.2 If paleontological resources are encountered during subsurface construction activities, all work within 50 feet of the discovery shall be redirected until a qualified paleontologist can evaluate the finds and make recommendations. If the paleontological resources are found to be significant, they shall be avoided by project construction activities and recovered by a qualified paleontologist. Upon completion of the recovery, a paleontological assessment shall be conducted by a qualified paleontologist to determine if further monitoring for paleontological resources is required. The assessment shall include: 1) the results of any geotechnical investigation prepared for the project site; 2) specific details of the construction plans for the project site; 3) background research; and 4) limited subsurface investigation within the project site. If a high potential to encounter paleontological resources is confirmed, a monitoring plan of further project subsurface construction shall be prepared in conjunction with this assessment. After project subsurface construction has ended, a report documenting monitoring, methods, findings, and further recommendations regarding paleontological resources shall be prepared and submitted to the Director of Community Development.
(Less Than Significant Impact with Mitigation)

4.5.3 Conclusion

There are no known historic or prehistoric cultural resources on or in the vicinity of the North Campoli and South Campoli project sites. The projects will result in a less than significant impact on cultural resources and/or historical resources with implementation of the above-listed mitigation measures. **(Less Than Significant Impact with Mitigation)**

4.6 GEOLOGY AND SOILS

4.6.1 Setting

4.6.1.1 Soils

Most of the North Campoli project site consists of Pleasanton loam which typically exists on slopes of zero to two percent, and a small portion of the project site consists of Maxwell clay which typically exists on slopes of zero to five percent. The South Campoli project site is also primarily made up of Pleasanton loam soil, but also includes Maxwell clay and Los Osos clay loam. Los Osos clay loam, which typically exists on slopes of 30 to 50 percent comprises only a small portion of the South Campoli project site and is adjacent Fisher Creek. The parent material of Pleasanton loam and Maxwell is alluvium and is residuum weathered from sandstone.[13] The project sites have no compressible soil hazard zones based on the *Santa Clara County Geologic Hazards Zones*[14] Map. Lots 1, 2 and 3 (adjacent to Fisher Creek)

4.6.1.2 Seismicity

The San Francisco Bay Area is one of the most seismically active regions in the United States. An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the North Campoli and South Campoli project sites. The degree of shaking is dependent on the magnitude of the event, the distance to its zone of rupture, and local geologic conditions. The three major faults in the area are the Calaveras, Monte Vista-Shannon, and San Andreas faults located 7.1 miles east, 16.4 miles west, and 16.5 miles west of the project site, respectively. The project sites are not located within an Alquist-Priolo Earthquake Fault Zone and there are no previously identified fault lines on the site or that trend toward the sites[15]. The potential for fault rupture at the sites is very low.

Liquefaction

Soil liquefaction is a condition where soils near the ground surface undergo a substantial loss of strength during seismic events. Loose, water-saturated soils are transformed from a solid to a liquid state during ground shaking. Soils most susceptible to liquefaction are loose, uniformly graded, saturated, fine-grained sands that lie close to the ground surface. The Association of Bay Area Governments (ABAG) designates the North Campoli and South Campoli project sites as areas with low to moderate liquefaction potential.[16]

[13] U.S. Department of Agriculture, Natural Resources Conservation Service. *Custom Soil Resource Report for Eastern Santa Clara Area, California*. September 2012.
[14] County of Santa Clara. *Santa Clara County Geologic Hazards Zones*. October 2006.
[15] California Department of Conservation. *Special Studies Zones. Revised Official Map*. January 1982.
[16] Association of Bay Area Governments. *Earthquake and Hazards Information.* <http://gis.abag.ca.gov/website/liquefactionsusceptibility/> Accessed September 18, 2012.

4.6.2 Environmental Checklist and Discussion of Impacts

GEOLOGY AND SOILS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information 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.)	☐	☐	☐	☒	☐	1,2,10
b) Strong seismic ground shaking?	☐	☐	☒	☐	☐	1,2
c) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	☐	1,2,10
d) Landslides?	☐	☐	☐	☒	☐	1,2,10
2) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	☐	1,2,10
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?	☐	☐	☐	☒	☐	1,2,9, 10, 11
4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐	☐	1,2,10
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?	☐	☐	☐	☒	☐	1,2

4.6.2.1 Geological Impacts

The likelihood of fault rupture at the North Campoli and South Campoli project sites is very low; however, the project sites are located in a seismically active region and strong ground shaking will likely occur at the project sites during the life of the projects. Soils at the project sites are susceptible to low and moderate rates of liquefaction. The project sites and surrounding areas are relatively flat. The projects will not, therefore, be exposed to landslide or erosion related hazards. The project sites are considered areas of relatively stable ground not likely to be involved in landsliding, faulting or other lateral displacement type ground failures.[17]

Lateral spreading is a phenomenon related to liquefaction whereby shaking results in the horizontal displacement of soil toward a creek, other open channel or other "free" face, such as an excavation boundary. The combination of liquefaction-prone soils and the proximity of the South Campoli residences, specifically on Lots 1 through 3, to Fisher Creek means that the risk of lateral spreading exists.

The projects will be built using standard engineering and seismic safety design techniques. Building design and construction at the project sites will be completed in conformance with the recommendations of a design-level geotechnical investigation. The report shall be reviewed and approved of by the City of Morgan Hill Building Division as part of the building permit review and issuance process. The buildings will be required to meet the requirements of applicable Building and Fire Codes, including the 2010 California Building Code, as adopted or updated by the City of Morgan Hill. The project will be designed to withstand soil hazards identified on the site and the project shall be designed to reduce the risk to life or property to the extent feasible and in compliance with the Building Code. **(Less Than Significant Impact)**

Each project site will be required to prepare an Erosion Control Plan as a standard condition prior to issuance of a building and/or site development permit. The Erosion Control Plan will be subject to review and approval by the Public Works Department. Conformance with the measures in the Erosion Control Plan will reduce soil erosion during construction. **(Less Than Significant Impact)**

4.6.3 <u>Conclusion</u>

Conformance with the recommendations of a design-level geotechnical report and with the 2010 Building Code, and conformance with a City-approved Erosion Control Plan will avoid geology and soil impacts at the project sites. **(Less Than Significant Impact)**

[17] City of Morgan Hill. *Geology, Geologic and Geotechnical Hazards. Ground Movement Potential Map.* December 1991.

4.7 GREENHOUSE GAS EMISSIONS

4.7.1 Setting

4.7.1.1 Background Information

This section provides a general discussion of global climate change and focuses on emissions from human activities that alter the chemical composition of the atmosphere. The discussion on global climate change and greenhouse gas (GHG) emissions is based in part upon the California Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32) and research, information and analysis completed by the International Panel on Climate Change (IPCC), the U.S. EPA, and the California Air Resources Board (CARB).

Global climate change refers to changes in weather including temperatures, precipitation, and wind patterns. Global temperatures are modulated by naturally occurring and anthropogenic (generated by mankind) atmospheric gases such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (NO_x).[18] These gases allow sunlight into the earth's atmosphere but prevent heat from radiating back out into outer space and escaping from the earth's atmosphere, thus altering the earth's energy balance. This phenomenon is known as the greenhouse effect.

Naturally occurring GHGs include water vapor,[19] CO_2, CH_4, NO_x, and ozone (O_3). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but are for the most part solely a product of industrial activities.

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of GHGs have a broader, global impact. Emissions of GHGs 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 will likely intensify in the coming decades and significantly impact the State's public health, natural and manmade infrastructure, and ecosystems.[20]

---

[18] IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Bases. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor, and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at: http://ipcc.ch/. Accessed October 3, 2012.

[19] Concentrations of water are highly variable in the atmosphere over time, with water occurring as vapor, cloud droplets and ice crystals. Changes in its concentration are also considered to be a result of climate feedbacks rather than a direct result of industrialization or other human activities. For this reason, water vapor is not discussed further as a greenhouse gas.

[20] California Energy Commission. *2009 California Climate Adaptation Strategy Discussion Draft.* August 2009. Available at: <http://resources.ca.gov/climate_adaptation/docs/Statewide_Adaptation_Strategy.pdf >. Accessed October 3, 2012.

Agencies at the international, national, state, and local levels are considering strategies to control emissions of gases that contribute to global warming. There is no comprehensive strategy that is being implemented on a global scale that addresses climate change; however, in California a multi-agency "Climate Action Team," has identified a range of strategies and the Air Resources Board, under AB 32, has approved the *Climate Change Scoping Plan* (Scoping Plan). AB 32 requires achievement by 2020 of a statewide greenhouse gas emissions limit equivalent to 1990 emission levels, and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions. The CARB and other State agencies are currently working on regulations and other initiatives to implement the Scoping Plan. By 2050, the State plans to reduce emissions to 80 percent below 1990 levels.

Bay Area 2010 Clean Air Plan

The Bay Area 2010 Clean Air Plan (CAP) is a multi-pollutant plan prepared by the Bay Area Air Quality Management District (BAAQMD) that addresses GHG emissions along with other air emissions in the San Francisco Bay Area Air Basin. One of the key objectives in the 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 CAP. The current CAP also includes performance objectives, consistent with the State's climate protection goals under AB 32 and SB 375, designed to reduce emissions of GHGs to 1990 levels by 2020 and 40 percent below 1990 levels by 2035.

Bay Area Air Quality Management District CEQA Guidelines

BAAQMD adopted an updated version of its CEQA air quality thresholds (updated May 2011) and developed guidelines for assessing and mitigating impacts under CEQA, including thresholds for GHG emissions. Due to a recent Superior Court case ruling in Alameda County (*California Building Industry Association versus BAAQMD Case No. RG10548693*), however, BAAQMD was required to cease dissemination of the CEQA Air Quality Guidelines, pending review of the Guidelines under CEQA. BAAQMD has appealed this ruling. Ultimately, the thresholds of significance used to evaluate the proposed developments are determined by the Lead Agency, the City of Morgan Hill. Per CEQA Guidelines Section 15064.7, the City has elected to use the thresholds and methodology included in the May 2011 BAAQMD Air Quality Guidelines, as they are based on substantial evidence and remain the most up-to-date, scientifically-based method available to evaluate air quality impacts.

Under BAAQMD's GHG emissions threshold, if a project results in operational-related GHG emissions of 1,100 metric tons of carbon dioxide equivalents (CO_{2e}) a year or more or a efficiency greater than 4.6 metric tons of CO_{2e} per Service Population (residents and employees) per a year, it would make a cumulatively considerable contribution to GHG emissions and result in a cumulatively

significant impact to global climate change. A threshold for stationary sources[21] of 10,000 metric tons of CO_{2e} a year also was adopted.

The project size for the North Campoli project is 10 single single-family dwelling units and 11 single-family dwelling units for the South Campoli project. Both projects are below the BAAQMD operational screening size (56 dwelling units) for GHG emissions. Therefore, no refined GHG analysis that includes modeling of GHG emissions, for either project is required.

4.7.1.2 Existing Conditions

Under existing conditions, the North Campoli project site is unoccupied and does not result in the direct release of any greenhouse gas emissions. The South Campoli project site currently has one residence which primarily results in GHG emissions from the generation of electricity and mobile emissions. Indirect emissions for both project sites are generated from the burning of fuel required for site maintenance.

4.7.2 <u>Environmental Checklist and Discussion of Impacts</u>

GREENHOUSE GAS EMISSIONS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	☐	1,2,5
2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒	☐	1,2,5

4.7.2.1 Construction Greenhouse Gas Emissions (Temporary Emissions)

Construction phases included site grading, trenching, building construction, and paving. The project sites are located in an urbanized location, within close distance of construction supplies and equipment, which will help minimize greenhouse gas emissions generated from transport of construction materials and waste. There is no reliable method to estimate construction-related emissions associated with the manufacturing of project materials.

[21] Stationary sources, such as boilers and emergency backup generators, burn fuels and directly emit greenhouse gases from combustion.

Neither the City of Morgan Hill nor the BAAQMD have quantified thresholds for construction activities, however, the emissions will be below the lowest threshold adopted by BAAQMD and given that the project sites are in an urban setting close to construction supplies and equipment, manufacture and construction of the projects will not contribute substantially to local or regional greenhouse gas emissions. **(Less Than Significant Impact)**

4.7.2.2 Operational Greenhouse Gas Emissions (Ongoing Emissions)

GHG (e.g., carbon dioxide, methane, and nitrogen dioxide) from operation of the proposed projects will include electricity and natural gas used by residents of the site, and fuel burned for transportation to and from the site. Indirect emissions will include utility usage by building residents for water conveyance, wastewater treatment, and solid waste disposal.

Greenhouse Gas Emission Sources

Traffic

Traffic is a source of GHG emissions for the North Campoli and South Campoli projects. The traffic and daily trip increase will be minimal; therefore, a formal traffic impact analysis is not required for these projects.

Area Sources (including Natural Gas and Electricity Consumption)

The proposed North Campoli and South Campoli projects will have to meet 2010 Title 24 standards that are approximately equivalent to LEED Silver certification. Standards include the following:

- Energy efficiency of the projects is assumed to be 15% greater than pre-2005 Title 24 standards;
- A minimum waste diversion rate of 50%, consistent with the rate currently met in Santa Clara County.
- Emissions rates associated with electricity consumption account for Pacific Gas & Electric utility's (PG&E) projected 2016 and 2020 CO2 intensity rate. These rates are based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. The derived 2016 and 2020 rates for PG&E are based on the California Public Utilities Commission (CPUC) GHG Calculator.[22]

[22] California Public Utilities Commission. *GHG Calculator version 3c*. October 2010. Available at: <http://ethree.com/public_projects/cpuc2.php>. Accessed October 3, 2012.

Project Operational GHG Emissions

The North Campoli and South Campoli projects are below the BAAQMD operational screening size (56 dwelling units) for GHG emissions; therefore, no formal GHG analysis, for either project is required. The project emissions will not exceed the BAAQMD thresholds of significance. **(Less Than Significant Impact)**

4.7.2.3 Consistency with Adopted Plans to Reduce GHG Emissions

The proposed North Campoli and South Campoli projects will be required to conform to applicable policies and processes listed in Chapter 15.65 of the Municipal Code which details the City's Sustainable Building Regulations.

The projects will also be subject to new requirements under rule making developed at the State and regional level regarding greenhouse gas emissions. The projects will not conflict with plans, policies or regulations adopted for the purpose of reducing the emissions of GHG. The projects will not conflict with any currently adopted local plans, policies, or regulations pertaining to GHG emissions. **(Less Than Significant Impact)**

4.7.3 Conclusion

The North Campoli and South Campoli projects will not result in a significant impact from greenhouse gas emissions. **(Less Than Significant Impact)**

4.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based in part on a Phase I Environmental Site Assessment (ESA) prepared for the site by *Enviro Assess*, in June 2012. This report, completed for the North Campoli and South Campoli sites, is attached to this Initial Study as Appendix D.

4.8.1 Existing Setting

The North Campoli project site consists of vacant land, trees, and two outbuildings. The South Campoli project site consists of vacant land, trees, and a one-story residence. The one-story rural residence has been located on the South Campoli project site since 1947 and was possibly part of a dairy farm through the early 1980s. No recognized environmental conditions have been identified based on the historical use of these project sites.

4.8.1.1 On-Site Sources of Contamination

During a site reconnaissance in June 2012, no evidence of hazardous materials was observed on the North Campoli or South Campoli project sites. The single-family house on the South Campoli project site was built in 1947 before lead and asbestos containing materials in building materials were regulated; therefore, it is possible that the building may contain these materials. The North Campoli project site has two outbuildings that may have also been constructed before these materials were regulated.

The project sites are not included on any list compiled pursuant to Section 65962.5 of the Government Code (Cortese List).[23]

4.8.1.2 Off-Site Sources of Contamination

A search of regulatory databases was completed to identify properties with documented environmental releases and/or those that use, store, or dispose of regulated chemicals. The database review found no off-site facilities that will be likely to significantly impact the North Campoli and South Campoli project sites.

[23] California Environmental Protection Agency. *Cortese List: Section 65962.5(a).* October 2011. Available at: <http://www.calepa.ca.gov/sitecleanup/corteselist/SectionA.htm>. Accessed: October 3, 2012.

4.8.2 Environmental Checklist and Discussion of Impacts

HAZARDS AND HAZARDOUS MATERIALS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information 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?	☐	☒	☐	☐	☐	1,2,12, 13
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?	☐	☐	☒	☐	☐	1,2,12, 13
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	☐	1,2,12, 13
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?	☐	☐	☐	☒	☐	1,2,12
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?	☐	☐	☐	☒	☐	1,2,14
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?	☐	☐	☐	☒	☐	1,2
7) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	☐	1,2

HAZARDS AND HAZARDOUS MATERIALS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project: 8) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒	☐	1,2,15

4.8.2.1 Impacts from the Proposed Projects

As previously noted, no evidence of hazardous materials was observed on the North Campoli or South Campoli project sites. The existing single-family house on the South Campoli project site could have lead based paint and/or regulated asbestos-containing materials (ACMs), since the house built before these materials were regulated. There are two outbuildings on the North Campoli that may have also been built before these materials were regulated.

Impact HAZ-1 Demolition of the existing single-family house on the South Campoli project site and the two outbuildings on the North Campoli project site that may contain lead-based paint and ACMs could expose construction workers and future residents to lead and asbestos.

Mitigation Measures: Implementation of the following measures will reduce impacts from hazardous materials to a less than significant level:

MM HAZ-1.1 The North Campoli and South Campoli projects are required to conform to the following regulatory programs and to implement the following measures to reduce impacts due to the presence of ACMs and/or lead based paint:

- In conformance with State and local laws, a visual inspection/pre-demolition survey, and possible sampling, shall be completed prior to the demolition of on-site structures to determine the presence of asbestos-containing materials and/or lead-based paint.
- Prior to demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Construction Standard, Title 8, California Code Regulations 1532.1, including employee training, employee air monitoring, and dust control. Any debris or soil containing lead-based paint or coatings will be disposed of at landfills that meet acceptance criteria for the waste being disposed.
- All potentially friable ACMs shall be removed in accordance with NESHAP guidelines prior to any building demolition or renovation that

may disturb the materials. All demolition activities will be undertaken in accordance with Cal/OSHA standards contained in Title 8 of CCR, Section 1529, to protect workers from exposure to asbestos.

- A registered asbestos abatement contractor shall be retained to remove and dispose of ACMs identified in the asbestos survey performed for the site in accordance with the standards stated above.
- Materials containing more than one (1) percent asbestos are also subject to BAAQMD regulations. Removal of materials containing more than one (1) percent asbestos shall be completed in accordance with BAAQMD requirements. **(Less Than Significant Impact with Mitigation)**

4.8.2.2 Impacts to the Proposed Projects

Based on the database search completed for the project sites, there are no hazardous waste sites or past hazardous waste incidents in the project area that will be likely to impact the project site. **(No Impact)**

The North Campoli and South Campoli project sites are 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.[24] The project sites are not located within the vicinity of a private airstrip. The project sites are located in a suburban setting and are not subject to wildland fires.[25] There are no adopted emergency response plans or emergency evacuation plans applicable to the project site. **(No Impact)**

4.8.3 Conclusion

The North Campoli and South Campoli projects will not result in a significant hazardous materials impact, with the implementation of the mitigation measures.
(Less Than Significant Impact with Mitigation)

[24] Santa Clara County Airport Land Use Commission. *Comprehensive Land Use Plan, South County Airport.* November 2008. Available at: < http://www.sccgov.org/sites/planning/Plans%20-%20Programs/Airport%20Land-Use%20Commission/Documents/E16-(3100)Adopted-11-19-08-CLUP.pdf>. Accessed October 29, 2012.
[25] City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface.* March 2009. Available at: <http://www.morgan-hill.ca.gov/index.aspx?nid=657>. Accessed October 3, 2012.

4.9 HYDROLOGY AND WATER QUALITY

4.9.1 Setting

The North Campoli project site encompasses 2.04 acres and the South Campoli site encompasses 2.35 acres. The properties are relatively flat with elevation at approximately 350 feet above mean sea level (msl). Fisher Creek is located along the western boundary of the South Campoli project site.

The North Campoli project site is undeveloped and the project site is almost entirely pervious. The surface on the South Campoli project site is mostly pervious with some impervious surfaces due to the one-story residence.

4.9.1.1 Drainage and Flooding

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.

The North Campoli and South Campoli project sites are located within the Fisher Creek drainage area. Fisher Creek Basin drains the northern portion of the City and continues in a northerly direction to the San Francisco Bay. Fisher Creek generally drains the area north of Llagas Road and Cochrane Road, and west of Highway 101.[26] Stormwater currently percolates through the soil or flows over the project sites and into the Fisher Creek channel.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM)[27] designates the project site as Zone D, "areas of undetermined, but possible, flood hazards."

4.9.1.2 Dam Failure and Seiche

Dams located near Morgan Hill include Anderson Dam and Chesbro Dam. The project site is located within the Anderson Dam failure inundation area.[28]

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

[26] City of Morgan Hill. *Storm Drainage System Master Plan.* January 2002. Available at: <http://ca-morganhill.civicplus.com/DocumentView.aspx?DID=622>. Accessed October 3, 2012.
[27] Federal Emergency Management Agency (FEMA). *Flood Insurance Rate Map Community Panel Number 06085C0443H*. 2009. Available at: <https://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=firmetteHelp_A&title=FIRMettes. Accessed October 3, 2012.
[28] Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: <http://www.abag.ca.gov/cgi-bin/pickdamx.pl>. Accessed October 3, 2012.

beneath the water body. The project sites are not located near a water body that is susceptible to seiche hazard.

4.9.1.3 Groundwater

Groundwater levels fluctuate based upon seasonal rainfall, time of year, local irrigation, and well pumping. In 2006, groundwater was encountered in soil borings at depths ranging from 21.5 to 41.5 feet below ground surface at a site adjacent and north of the North Campoli project site (approved Hale Signature Homes project).[29] Groundwater most likely occurs at a similar depth range at the North Campoli and South Campoli project sites.

4.9.1.4 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. Stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain.

4.9.1.5 Regulatory Framework

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. The Morgan Hill area north of Llagas Road and Cochrane Road,[30] which includes the project site, is regulated by the San Francisco Bay Regional Water Quality Control Board (RWQCB).[31]

NPDES General Permit for Construction Activity

The State Water Resources Control Board has implemented a NPDES General Construction Permit for the State of California. Construction activity subject to this permit includes clearing, grading, and ground disturbances such as stockpiling or excavation. For projects disturbing one acre or more of

[29] TERRASEARCH. *Geotechnical Investigation on Proposed Residential Development*. July 2006.
[30] Santa Clara Valley Water District. *Uvas-Llagas Watershed Map*. Available at: <http://www.valleywatercompplan.org/watersheds/view/449 >. Accessed October 3, 2012.
[31] 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.

soil,[32] a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared prior to commencement of construction.[33]

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 projects are located in the portion of Santa Clara County within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board, 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.

4.9.2 Environmental Checklist and Discussion of Impacts

HYDROLOGY AND WATER QUALITY						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
1) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐	☐	1,2
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)?	☐	☐	☐	☒	☐	1,2

[32] Effective July 1, 2010, all dischargers were 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 April 13, 2012. <http://www.swrcb.ca.gov/water_issues/programs/stormwater/construction.shtml>
[33] Santa Clara Valley Urban Runoff Pollution Prevention Program. *Stormwater Pollution Control Requirements*. December 2005.

HYDROLOGY AND WATER QUALITY						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
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?	☐	☒	☐	☐	☐	1,2
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?	☐	☐	☒	☐	☐	1,2
5) Create or contribute runoff water which will exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐	☐	1,2
6) Otherwise substantially degrade water quality?	☐	☐	☒	☐	☐	1,2
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?	☐	☐	☒	☐	☐	1,2,16 17
8) Place within a 100-year flood hazard area structures which will impede or redirect flood flows?	☐	☐	☒	☐	☐	1,2,16

4.9.2.1 Drainage and Flooding

As shown below in Tables 4.9-1 and 4.9-2, 75,565 s.f. of impervious surfaces (85% of the North Campoli site's surfaces) will be added to the North Campoli project site and approximately 43,055 s.f. of impervious surfaces will be added to the South Campoli project site (55% of the South Campoli site's surfaces will be impervious).

Table 4.9-1 Pervious and Impervious Surfaces On-Site North Campoli Project Site						
Site Surface	**Existing/Pre-Construction (s.f.)**	**%**	**Project/Post-Construction (s.f.)**	**%**	**Difference (s.f.)**	**%**
Impervious						
Building Footprints/ Driveways	0	0	75,565	85	75,565	85
Subtotal	*0*	-	*75,565*	*85*	*75,565*	*85*
Pervious						
Landscaping	0	0	13,335	15	13,335	15
Subtotal	*0*	*0*	*13,335*	*15*	*13,335*	*15*
Undeveloped/Vacant	88,900	100	0	0	0	0
TOTAL	**88,900**	-	**88,900**	-		

Table 4.9-2 Pervious and Impervious Surfaces On-Site South Campoli Project Site						
Site Surface	**Existing/Pre-Construction (s.f.)**	**%**	**Project/Post-Construction (s.f.)**	**%**	**Difference (s.f.)**	**%**
Impervious						
Building Footprints/ Driveways	13,225	13	56,280	55	43,055	42
Subtotal	*0*	-	*56,280*	*55*	*43,055*	*42*
Pervious						
Landscaping	89,141	87	46,086	45	43,055	42
Subtotal	*0*	*0*	*46,086*	*45*	*43,055*	*42*
Undeveloped/Vacant	0	0	0	0	0	0
TOTAL	**102,366**	-	**102,366**	-		

Based on the City of Morgan Hill's land development drainage standard, the projects will be required to minimally detain water from a 24-hour, 25-year storm with 25 percent freeboard.[34,35]

The North Campoli project proposes to install two storm drains with drop inlets for each lot that is constructed, which equals a total of 20 storm drains for the site. Stormwater water from the North Campoli site will flow into the storm drains, then flow to existing off-site storm drains. Stormwater

[34] City of Morgan Hill. *Storm Drainage System Master Plan.* January 2002. Available at: <http://ca-morganhill.civicplus.com/DocumentView.aspx?DID=622>. Accessed October 3, 2012.
[35] City of Morgan Hill. *Design Standards. Storm Drain Design Standards: Section 4*. Available at: <http://www.morgan-hill.ca.gov/DocumentView.aspx?DID=808>. Accessed August 22, 2012.

retention basins will be constructed along the South Campoli site fronting Fisher Creek. Stormwater from the South Campoli site (from one to two storm drains per lot) will flow to the stormwater retention basins, and will ultimately flow back to the City's stormwater system along Paloma Drive. The North Campoli and South Campoli projects will not exceed the capacity of existing or planned stormwater drainage systems. **(Less Than Significant Impact)**

The North Campoli project site is within FEMA's mapped Zone D, areas of undetermined, but possible, flood hazards. The South Campoli project site is within Zone X, which are areas of moderate flood hazard, usually between the limits of the 100-year and 500-year floods. The City of Morgan Hill Flood Damage Prevention Ordinance (Section 18.42, Morgan Hill Municipal Code) only applies to "high risk areas" as described by FEMA (all types of Zone A's; 1% chance of flooding in a 100-yr period). Both projects will be required to comply with the City of Morgan Hill's land development drainage standard (described previously); also, flooding might occur on the project sites, but only in the most extreme circumstances. **(Less Than Significant Impact)**

4.9.2.2 Dam Failure and Seiche

The proposed North Campoli and South Campoli projects will not expose people or structures to a substantial risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. **(Less Than Significant Impact)**

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

4.9.2.3 Groundwater

Groundwater occurs at depths ranging from 21.5 to 41.5 feet below ground surface. Based on this assumption, the groundwater would be deep enough such that the projects would not interfere with groundwater flow or expose any aquifers. The projects will not impact aquifer recharge.
(Less Than Significant Impact)

4.9.2.4 Water Quality

Construction

Construction activities, on the South Campoli project site, related to the building construction will temporarily increase the amount of debris on-site and grading activities could increase erosion and sedimentation that could be carried by runoff into the Fisher Creek channel.

Impact HYD-1 Construction activities could temporarily increase pollutant loads in stormwater runoff. **(Significant Impact)**

Mitigation Measures: In accordance with the City of Morgan Hill Standard Conditions of Approval and the General National Pollutant Discharge Elimination System Storm Water Permit for

Construction Activities, the following measures have been included in the project to reduce potential construction-related water quality impacts.

MM HYD 1.1 Implementation of the following Pre-Construction Measures will reduce construction-related water quality impacts to a less than significant level:

- Burlap bags filled with drain rock will be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities will be suspended during periods of high winds.
- All exposed or disturbed soil surfaces will be watered at least twice daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind will be watered or covered.
- All trucks hauling soil, sand, and other loose materials will be covered and all trucks will be required to maintain at least two feet of freeboard.
- All paved access roads, parking areas, staging areas and residential streets adjacent to the construction sites will be swept daily (with water sweepers).
- Vegetation in disturbed areas will be replanted as quickly as possible. **(Less Than Significant Impact with Mitigation)**

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 North Campoli and South Campoli projects will be required to conform to the City's Stormwater Master Plan (SWMP) to help reduce the discharge of pollutants into waterways and to protect local water quality that could be impacted by stormwater and urban run-off within the corporate limits of Morgan Hill.

Stormwater from the North Campoli project site will enter new storm drains with drop inlets constructed within the North Campoli site and Campoli Drive. Stormwater from the North Campoli site will then flow into the City's stormwater system. In order to meet SWMP requirements for the South Campoli project site, all stormwater will be directed toward stormwater bioretention basins which will be located along the length of the western portion of the site, and to the east of Fisher Creek. Stormwater from the South Campoli site will flow from on-site storm drains, into the stormwater bioretention basins, then flow back to the City's stormwater system along Paloma Drive. The stormwater retention basins will act as buffers between the South Campoli project site and Fisher Creek. With implementation of the SWMP, both projects will not have a significant operational impact on water quality. **(Less Than Significant Impact)**

4.9.3 Conclusion

With compliance to the City's land development drainage standard and the *Flood Damage Prevention Ordinance*, as well as implementation of a SWPPP, SWMP, and associated best management practices, the North Campoli and South Campoli projects will result in less than significant hydrology and water quality impacts. **(Less Than Significant Impact with Mitigation)**

4.10 LAND USE

4.10.1 Setting

The North Campoli and South Campoli project sites are located at the base of the Santa Cruz Mountain range foothills in the City of Morgan Hill. The North Campoli project site is 2.04 acres and consists of flat vacant grassland, trees and two small outbuildings. The South Campoli project site is 2.35 acres and consists of one single-story residence, flat vacant grassland, and trees.

4.10.1.1 Surrounding Land Uses

The North Campoli project site is bordered by flat vacant grassland that is planned for a residential subdivision (approved Hale-Signature Homes project) on the northern boundary of the project site, single-family residences on the western and eastern boundaries, and Campoli Drive and the pending South Campoli project with one single-family residence to the south.

The South Campoli project site is bordered by Campoli Drive and the North Campoli single-family residential development to the north, single-family residential development to the south, Old Monterey Road and the UPRR/Caltrain tracks to the east, and Fisher Creek to the west. To the west of Fisher Creek is a single-family residential development.

4.10.1.2 General Plan and Zoning

The North Campoli and South Campoli project sites are designated *Single-Family Medium (3-5 dwelling units per acre [du/ac])* in the City's General Plan and zoned as *R1-7000, Single-Family District.*

The residential development to the west and the approved residential development to the north of the North Campoli project site are designated as *Single-Family Medium (3-5 dwelling units per acre [du/ac])* in the City's General Plan; these developments are zoned as *R1- 7,000- Single-Family District* and *R1-7000 Planned Development,* respectively. There is one single family residence to the east and south (south of Campoli drive) of the North Campoli project site*;* these areas are also designated as *Single-Family Medium (3-5 dwelling units per acre [du/ac])* in the City's General Plan and zoned as *R1- 7,000- Single-Family District.*

The areas to the located immediately to the north, west and south of the South Campoli project site have residences and are designated as *Single-Family Medium (3-5 dwelling units per acre [du/ac])* in the City's General Plan and zoned as *R1- 7,000.* The area to the east of the site (adjacent to the UPRR/Caltrain tracks and Old Monterey Road) is designated as *Commercial* in the City's General Plan and zoned as a *General Commercial District (CG).*

4.10.2 Environmental Checklist and Discussion of Impacts

LAND USE						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
1) Physically divide an established community?	☐	☐	☐	☒	☐	1,2
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?	☐	☐	☒	☐	☐	1,2
3) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒	☐	1,2,7

4.10.2.1 Land Use Impacts from the Project

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.

The North Campoli project proposes a subdivision to allow for the construction of 10 single-family houses and the South Campoli project proposes a subdivision to allow for the construction of 11 single-family houses. The projects will maintain the existing *Single-Family Medium (3-5 dwelling units per acre [du/ac])* General Plan land use designation. Both projects propose to amend the zoning to *R1-7000 (PD)-Single Family District*, to allow for certain exceptions to the existing site development standards of the zoning district.

Pursuant to the criteria set by the Zoning Code, Section 18.12.060 (E) the *R1-7,000* zoning district requires 20-foot front and rear setbacks for the first story on a residential unit, 25-foot front and rear setbacks for second stories, and for structures over 17 feet in height, a minimum side setback of 12.5 feet is required. Detached units must have a minimum lot width of 60 feet and single-family attached

units must have a minimum lot width of 40 feet. The minimum lot depth on all parcels must be 85 feet and the maximum building coverage is 50 percent. The maximum building height is 2.5 stories, or 30 feet, whichever is less.[36]

Most of the exceptions requested as part of the proposed Planned Development (PD) for the North Campoli and South Campoli projects are interior to the projects and will not affect existing adjacent land uses. North Campoli residential Lots 1 and 10 will have side yards that share a boundary with the rear yard of an adjacent property to the west of the project site and Lots 5 and 6 will have side yards will share a boundary with a rear yard of an adjacent property to the east. South Campoli residential Lots 3, 4, 7, 8, and 11 will have rear yards that share a boundary with the rear yards of residential development to the south (see Figure 3.2-2, *South Campoli Project Site Plan)*. The residential structures proposed for the lots for both projects will comply with height and building coverage requirements for the *R1-7,000* zoning district. Some of these lots will have reduced side-yard and reduced lot widths under the proposed PD. These exceptions are interior to the project and will not affect the adjacent residential developments.

The proposed residential houses for the North Campoli and South Campoli project sites will meet the *R1-7,000* zoning district requirements for 50 percent building coverage. The project sites will not, therefore, appear overdeveloped and the projects will not unreasonably affect residential properties abutting the project sites.

The North Campoli and South Campoli projects are typical of suburban infill development where buildings are constructed in close proximity to each other. The projects will not result in the placement of an incompatible land use amongst the established land uses in the surrounding areas. The projects will not result in a land use conflict with properties near the project sites.
(Less Than Significant Impact)

Residential development on the project sites will 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 will not be at levels considered significant. Construction activities will 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.
(Less than Significant Impact)

The project sites are in a suburban setting characterized by one- and two-story single-family residential development, and vacant land. The projects will increase residential development in an area that already has residential development and will not physically divide an established community. **(No Impact)**

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

[36] City of Morgan Hill. *Code of Ordinances. Supplement History Table. Title 18 – Zoning. Division I. Zoning Code. Chapter 18.12 – R1-7000 Single-Family Medium Density District*. Available at: <http://library.municode.com/index.aspx?clientId=16502>. Accessed August 23, 2012.

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. The North Campoli project has six lots of record that are exempt through the RDCS allocation requirement (per the City Council's RDCS implementation policy, CP-07-04). The balance of the parcels of the project will be conditioned to receive future RDCS allocations. The South Campoli project had originally been awarded 12 allocations for the fiscal year 2011-2012. The project received an Exception to Loss of Building Allocation to extend the commencement of construction deadline to December 30, 2013. The project has also gone through design changes and if approved, will not utilize all 12 units the project was originally awarded.

Given the metering effect of the RDCS, the proposed project will not overwhelm the City's utility systems or induce unplanned residential development in the area that will result in a significant land use impact. With approval of the proposed PDs, the North Campoli and South Campoli projects will not conflict with any applicable land use plan, policy, or regulation. The projects will not conflict with any applicable habitat conservation plan or natural community conservation plan.
(Less than Significant Impact)

In August 2007, the Morgan Hill City Council approved Resolution 6112, which formally adopted the Santa Clara Valley Water Resources Protection Collaborative (Collaborative) Guidelines and Standards for Land Use Near Streams. The Collaborative was a group comprised of 15 cities, Santa Clara County, Santa Clara Valley Water District, and a variety of other interest groups. The Collaborative established guidelines and standards with the goal of flood management, drinking water quality and quantity, surface and groundwater quality and quantity, and habitat protection. The guidelines and standards establish a 20 foot building setback from the top of bank, which would apply to Fisher Creek.

Residential development on the South Campoli project site will be buffered from Fisher Creek by a 30-foot setback from the edge of the creek to the project site. **(Less Than Significant Impact)**

4.10.2.2 Impacts to the Proposed Project

The North Campoli and South Campoli project sites share an interface with adjacent residential land uses. Monterey Road and the UPRR tracks will act as a buffer between the South Campoli project site and commercial and light industrial development to the east of the site. The projects will not place new residential development adjacent to an incompatible land use such as a heavy industrial zone. Future residents of the project sites will be exposed to noise from vehicles and trains along Monterey Road and the UPRR tracks. With incorporation of measures listed in Section 4.11 *Noise*, impacts to future residents of the project sites from noise will be reduced to a less than significant level. Future residents of the North Campoli and South Campoli project sites will not be significantly impacted by existing land uses in the project area. **(Less Than Significant Impact)**

4.10.3 Conclusion

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

4.11 MINERAL RESOURCES

4.11.1 Setting

The North Campoli and South Campoli project sites do not contain any known or designated mineral resources.

4.11.2 Environmental Checklist and Discussion of Impacts

MINERAL RESOURCES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information 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?	☐	☐	☐	☒	☐	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?	☐	☐	☐	☒	☐	1,2

4.11.2.1 Impacts to Mineral Resources

The North Campoli and South Campoli projects will not result in physical development or in the loss of availability of a known mineral resource, and no mineral excavation sites are present within the project sites. The proposed projects will not, therefore, result in significant adverse impacts to mineral resources. **(No Impact)**

4.11.3 Conclusion

The North Campoli and South Campoli projects will not result in impacts to known mineral resources. **(No Impact)**

4.12 NOISE

The following is based upon a Noise and Vibration Assessment prepared by *Illingworth & Rodkin, Inc.* in May 2012. The assessment is attached to the back of this Initial Study as Appendix E.

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. A 10 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 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. It includes a 10 dB addition to noise levels from 10:00 PM to 7:00 AM to account for human sensitivity to night noise.

4.12.1.2 Applicable Noise Standards

The City of Morgan Hill General Plan Acceptable Noise Levels standards state that the normally acceptable interior noise level for residential uses is 45 dBA L_{dn}. General Plan Policy 7a states that noise levels in new residential development exposed to an exterior L_{dn} of 60 dBA or greater should be limited to maximum instantaneous noise levels, $L_{max,}$ (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA L_{max}. 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. The City's standards for acceptable exterior noise levels are 60 dBA L_{dn} in single-family residential use areas and 70 dBA L_{dn} for playgrounds, neighborhood parks, agriculture and several types of outdoor recreation. General Plan Policy 7a also states that 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.

Additionally, the 2010 California Building Code has established a 60 dBA L_{dn} exterior noise threshold for new dwellings other than detached single-family housing, and an interior noise threshold of 45 dBA L_{dn} applicable to any habitable room.

4.12.1.3 Existing Noise Environment

The North Campoli project site is surrounded by vacant land (approved Hale-Signature Homes project) to the north, a single-family residence to the east and west, and a single-family residence on the South Campoli site to the south. The UPRR/Caltrain tracks are located 250 feet east of the North Campoli property line. The South Campoli project site is surrounded by residential development to the north and south, Fisher Creek to the west and UPRR/Caltrain tracks to the east.

The existing noise environment of both sites and their vicinity results primarily from railroad trains including Caltrain, Amtrak, and freight, and vehicular traffic on Monterey Road and Hale Avenue. Aircraft over flights are audible at times, but are not significant contributors to daily average noise levels at both project sites. Based upon the future noise contour map in the Morgan Hill General Plan, noise levels on most of the site in 2025 will be between 65 and 70 dBA L_{dn}. A small area in the northern portion of the sites will be less than 65 dBA L_{dn}.

Noise monitoring was completed at the site between November 20, 2011 and November 23, 2011 for the property immediately north and adjacent (approved Hale-Signature Homes project) to the North Campoli project site in order to quantify existing ambient noise levels. The noise monitoring survey included two long-term measurements and four short-term measurements. The noise measurement data was extrapolated from the adjacent site to determine the noise levels at the North Campoli and South Campoli project sites.

The first long-term noise measurement was taken at the setback of existing and proposed residences adjacent to the UPRR/Monterey Road corridor. Noise levels measured at this location were primarily the result of railroad train pass-bys. In the absence of railroad trains, traffic along Monterey Road was the predominant noise source. Hourly average noise levels (L_{eq}) ranged from 48 to 72 dBA throughout the monitoring period yielding an L_{dn} that ranged from 70 to 72 dBA. Maximum instantaneous noise levels generated during railroad train pass-bys were typically 90 dBA. Trains sound their warning whistles within approximately one-quarter mile of the UPRR at-grade crossing with Tilton Avenue.

The second long-term noise measurement was taken approximately 45 feet from the center of Hale Avenue to quantify noise levels from traffic along the roadway. Hourly average noise levels typically ranged from 62 to 71 dBA during the day, and from 53 to 68 dBA at night. The L_{dn} at this location was 70 dBA.

Short-term noise measurements ST-1 through ST-4 were made at various locations immediately north of and adjacent to the North Campoli site (at the approved Hale-Signature project site), to represent noise levels at the proposed noise-sensitive residential land uses. Table 4.12-1 summarizes the data collected at the short-term measurement locations.

Table 4.12-1
Short-Term Noise Measurement Data
(November 21, 2011)

Noise Measurement Location	Time	Maximum Noise Level during Measurement Period (L_{max})	Average Noise Level (L_{eq})	L_{dn}
ST-1: ~ 195 feet from the center of Monterey Road. Monterey Road traffic noise only.	9:00-9:10 AM	66	55	70-72
	9:10-9:20 AM	66	56	
ST-2: ~ 180 feet from the center of Hale Avenue.	10:10-10:20 AM	56	49	55
	10:20-10:30 AM	61	52	
ST-3: ~ 280 feet from the center of the UPRR, 390 feet from the center of Monterey Road. 10:40 measurement included Amtrak train passby.	10:40-10:50 AM	73	56	65
	10:50-11:00 AM	56	49	
	11:00-11:10 AM	54	48	
ST-4: ~ 195 feet from the center of Monterey Road. Monterey Road traffic noise only.	2:30-2:40 PM	64	57	70-72
	2:40-2:50 PM	66	57	
	2:50-3:00 PM	67	58	
Note: L_{dn} approximated by correlating to corresponding period at long-term site.				

4.12.1.4 Vibration Background

Ground vibration from passing trains consists of rapidly fluctuating motions or waves, which are also measured in decibels.[37] The abbreviation "VdB" is used in this document for vibration decibels to reduce confusion with sound decibels. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences. Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the approximate 65 VdB threshold of perception for most people.

4.12.1.5 Vibration Guidelines

Transit systems, including light and heavy rail, are potential sources of substantial ground vibration depending on distance, the type and speed of trains, and the type of track. The Federal Transit

[37] Decibels of ground vibration refer to peak vertical velocities of the floors of affected structures. In contrast, sound decibels refer to the time-averaged magnitudes of fluctuations in air pressure levels.

Administration (FTA) of the U.S Department of Transportation has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects.

Currently, 12 to 15 trains pass by the project site per day. It is anticipated that rail traffic along the line will increase to 30 trains or more per day with the planned Caltrain expansion project and other growth in rail service, but would not exceed 70 trains per day. Train activity would be considered "occasional" with respect to the FTA vibration impact criteria. For residences and buildings that experience "occasional events," groundborne vibration of 75 VdB or less is acceptable.

4.12.1.6 Existing Vibration Environment

Railroad trains are a source of ground-borne vibration that could affect the project site. Vibration measurements were taken on Monday, November 21, 2011 at approximately 80 feet from the UPRR tracks between 6:00 AM and 6:00 PM. During this time period, five passenger trains passed the site. Four of the trains were Caltrain and the final train was an Amtrak. No freight trains were observed during the 12-hour monitoring period. Conversations with residents of the area confirmed that freight traffic on the line was sporadic.

Vibration data was obtained during three of the Caltrain passbys. Maximum overall vibration measurements from the passing trains ranged from 72 to 73 VdB. Vibration levels measurements were below the FTA's 75 VdB "occasional events" criteria for a general vibration assessment and below the FTA's criteria for conducting a detailed vibration analysis.

4.12.1.7 Rail Service Growth

The California High-Speed Rail Authority is proposing a High-Speed Train (HST) project between the Bay Area and the Central Valley, and the HST alignment is proposed adjacent to the South Campoli project site between the UPRR right-of-way and Monterey Road. The project includes a potential shifting of Monterey Road to accommodate the HST project. Under this scenario, Monterey Road would be shifted farther from the project sites thereby reducing traffic noise levels slightly.

Rail traffic along the conventional railroad line adjacent to the site is also planned to increase with the implementation of the Caltrain South County Commuter Rail Project and other growth in rail service. The South County Commuter Rail Project has, however, been placed on temporary suspension due to recent uncertainties in the Caltrain program and the High Speed Train (HST) environmental document (April 2012).

4.12.2 Environmental Checklist and Discussion of Impacts

NOISE						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information 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?	☐	☒	☐	☐	☐	1,2,18, 19
2) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	☐	1,2,18, 19
3) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	☐	1,2,18, 19
4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐	☐	1,2,18, 19
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?	☐	☐	☐	☒	☐	1,2,14
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?	☐	☐	☐	☒	☐	1,2

The CEQA Guidelines state that a project will 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 will 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 3 dBA noise level increase is considered the minimum increase that is perceptible to the human ear. Typically, project-generated noise level increases of 3 dBA L_{dn} or greater are considered significant where resulting exterior noise levels will exceed the normally acceptable noise level standard.

Where noise levels will remain at or below the normally acceptable noise level standard with the project, a noise level increase of 5 dBA L_{dn} or greater is considered significant.

4.12.2.1 Impacts to the Proposed Projects

Exterior Noise Levels

The future noise environment at the North Campoli and South Campoli project sites will be primarily from transportation-related noise sources including conventional railroad trains, vehicular traffic, and possible high-speed rail trains. The calculation of daily average noise levels is highly dependent on the number and type of trains planned per day and the timing of the train passbys over the course of the day, whether during the daytime or at night.

Impacts from Other Projects

California High-Speed Rail Authority is proposing a High-Speed Train (HST) project between the Bay Area and the Central Valley, and the HST alignment is envisioned to be in the vicinity of the project sites between the UPRR right-of-way and Monterey Road[38]. Rail traffic along the conventional railroad line is also planned to increase with the planned Caltrain South County Commuter Rail Project and other growth in rail service. However, according to VTA[39], "…the grading contract for Phase 1 (8.3 miles) has been placed on temporary suspension while the scope is being reviewed in consideration of the recent uncertainties in the Caltrain program and the upcoming release of the High Speed Train (HST) environmental document. The project budget identified for Phase 2 has been de-obligated pending analysis of future ridership forecasts and service demands."

Due to uncertainties surrounding the South County Commuter Rail Project and HST, future day-night average noise levels from these projects cannot be predicted. This analysis does not, therefore, consider noise resulting from implementation of the HST or the South County Commuter Rail. Noise impacts from these projects to future residents will be analyzed and mitigated as warranted in the future project-level environmental analysis for those projects.
(Less Than Significant Impact)

Impacts to the North Campoli Project Site

North Campoli residences will be located no closer than 250 feet from the centerline of UPRR and 375 feet from the centerline of Monterey Road. Assuming sound attenuation due to distance, noise levels are calculated to be 64 to 66 dBA L_{dn} at the easternmost areas of the project site. Since noise levels at these locations will be less than 70 dBA L_{dn} and dominated by railroad noise, the noise levels will have a less than significant impact.

Residences proposed on the North Campoli project site will be no closer than 205 feet from the centerline of Hale Avenue/Santa Teresa Boulevard. Noise levels are calculated to be 54 dBA L_{dn} at

[38] California High-Speed Rail Authority. *Bay Area to Central Valley High-Speed Train Partially Revised Final Program EIR*, April 2012.
[39] http://www.vta.org/2000_measure_a/pdf/projects/commuter_rail_program_caltrain_south_county.pdf

westernmost residential facades. Since noise levels from traffic will be less than 60 dBA L_{dn} at these locations, the noise levels will have a less than significant impact.

Impacts to the South Campoli Project Site

South Campoli residences will be located no closer than 60 feet from the centerline of UPRR and 250 feet from the centerline of Monterey Road. Assuming sound attenuation due to distance, noise levels are calculated to be 69 to 71 dBA L_{dn} at the easternmost areas of the project site. Noise levels at the South Campoli project site will exceed the City's noise and land use compatibility standards and the threshold for acceptable exterior noise levels per the 2010 California Building Code.

Residences proposed on the South Campoli project site will be no closer than 205 feet from the centerline of Hale Avenue/Santa Teresa Boulevard. Noise levels are calculated to be 54 dBA L_{dn} at westernmost residential facades. Since noise levels from traffic will be less than 60 dBA L_{dn} at these locations, this is a less than significant impact.

Future Impacts to North Campoli and South Campoli Project Sites

Besides railroad trains, vehicular traffic along Monterey Road and Hale Avenue will be the primary noise source at the project site. Future noise levels from traffic along Monterey Road are projected to increase by up to 1 dBA L_{dn}, and day-night average noise levels on Monterey Road are projected to reach 62 dBA L_{dn} at the proposed setback of residential land uses nearest the roadway. Similarly, future noise levels from traffic along Hale Avenue are projected to increase by 1 dBA L_{dn}, and day-night average noise levels along Hale Avenue are projected to reach 56 dBA L_{dn} at the proposed setback of residential land uses nearest the roadway.

In the absence of railroad trains, the future noise environment at the North Campoli and South Campoli project sites will continue to result from traffic along Monterey Road and Hale Avenue. A potential shifting of Monterey Road is currently being considered to accommodate the HST project. Under this scenario, Monterey Road would be shifted farther from the from the both project sites, thereby reducing traffic noise levels slightly. This potential reduction in Monterey Road traffic noise, however, will not likely be noticeable because noise from trains will continue to be the dominant source of noise. This analysis, however, does not assume that Monterey Road will be shifted to the east to accommodate the HST alignment, and assumes that traffic noise levels along Monterey Road will increase corresponding to the increase in traffic volumes projected along the roadway. Traffic noise levels along Monterey Road are calculated to increase by 0 to 1 dBA L_{dn}, and day-night average noise levels from Monterey Road traffic are calculated to reach 62 dBA L_{dn} at the proposed setback of residential land uses nearest the roadway. Similarly, traffic noise levels along Hale Avenue are calculated to increase by about 1 dBA L_{dn}.

A significant impact will occur if residential land uses proposed by the projects are exposed to exterior noise levels exceeding 60 dBA L_{dn} from traffic noise and 70 dBA L_{dn} from railroad noise. The future exterior noise levels at the South Campoli residences closest to the UPRR and Monterey Road (Lots 10 and 11) are estimated to exceed these levels, as levels are expected to range from 69 to 71 dBA L_{dn} from traffic and railroad noise. Since the North Campoli project site is setback further

from the UPRR and Monterey Road, and future noise levels are estimated to be 54 dBA L_{dn} for traffic noise and 64 to 66 dBA L_{dn} for railroad noise, noise impacts to the North Campoli site will be less than significant.

Impact NOI-1 Future exterior noise levels at the South Campoli residences closest to the UPRR and Monterey Road could exceed the City's noise and land use compatibility standards and the threshold for acceptable exterior noise levels for single-family housing per the 2010 California Building Code. **(Significant Impact)**

Mitigation Measure: The following mitigation measure will reduce exterior noise at the South Campoli residences closest to the UPRR tracks and Monterey Road to a less than significant level:

MM NOI-1.1 Private outdoor use areas for South Campoli Lots 10 and 11, facing the UPRR, shall be shielded by the residential units, providing a 10 dB noise attenuation at exterior use areas. **(Less Than Significant Impact with Mitigation)**

Interior Noise Levels

The California Building Code and City of Morgan Hill require that interior noise levels within new residential units be maintained at or below 45 dBA L_{dn}. The City of Morgan Hill also requires new residential development exposed to an exterior L_{dn} of 60 dBA or greater to reduce maximum instantaneous noise levels (e.g., trucks on busy streets, train warning whistles) in bedrooms to 50 dBA L_{max}. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA L_{max}.

The project design for the North Campoli and South Campoli projects will require building techniques to control noise, beyond typical construction techniques. In buildings of typical construction, with the windows partially open, interior noise levels are generally 15 dBA lower than exterior noise levels. With the windows maintained in the closed position, standard residential construction typically provides about 20 to 25 decibels of noise reduction. Meeting only the L_{dn} noise standard at the project site will require approximately 30 dBA of noise reduction indoors assuming a day-night average noise level of up to 75 dBA L_{dn} outdoors. Meeting the L_{max} noise standard at the project site will require approximately 40 dBA of noise reduction indoors assuming a maximum instantaneous noise level of 90 dBA L_{max} outdoors (railroad train passbys were measured at 90 dBA L_{max}). Meeting the interior L_{max} noise standards will provide sufficient noise reduction in order to also meet the 45 dBA L_{dn} day-night average noise level standard.

Impact NOI-2 Future interior noise levels at the North Campoli and South Campoli project sites will exceed the City's noise and land use compatibility standards and the threshold for acceptable noise levels for residential uses per the 2010 California Building Code. **(Significant Impact)**

Mitigation Measures: The following mitigation measures will reduce interior noise at the North Campoli and South Campoli residential developments closest to the railroad to a less than significant level.

MM NOI-2.1 The following mitigation measures shall be incorporated into the project design.

- Suitable form of forced-air mechanical ventilation shall be provided, as determined by the local building official, for units throughout the site, so that windows could be kept closed at the occupant's discretion to control interior noise and achieve the interior L_{max} and L_{dn} noise standards.
- Sound rated windows and doors to maintain interior noise levels at acceptable levels shall be provided. Preliminary calculations made based on the data contained in the conceptual design plans indicate that sound-rated windows and doors with a sound transmission class rating of STC 38 to 43 would be sufficient to control maximum instantaneous noise levels to 50 dBA Lmax in bedrooms, 55 dBA Lmax in other habitable rooms, and to also achieve the 45 dBA Ldn interior noise standard. Additional treatments may include, but are not limited to, sound rated wall construction, acoustical caulking, insulation, acoustical vents, etc. Large windows and doors shall be oriented away from the railroad where possible. Bedrooms shall be located away from the railroad.
- Final specifications shall be confirmed for noise insulation treatments during final design of the project, based on the best available data regarding future usage assumptions for the UPRR and HST alignments. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City along with the building plans and approved prior to issuance of a building permit.
  (Less Than Significant Impact with Mitigation)

Groundborne Vibration

Approximately 12 to 15 trains per day currently pass by the project sites, many of which pass during evening and nighttime hours when people are at rest. It is anticipated that conventional rail traffic along the line may increase to 30 trains or more per day, but it is highly unlikely to reach 70 trains per day. Future conventional train activity will be considered "occasional" with respect to the FTA vibration impact criteria. The 75 VdB limit is used in the evaluation of the projects with respect to vibration compatibility. The South Campoli residential units are proposed to be a minimum of approximately 60 feet from the railroad tracks. The North Campoli residential units are proposed to be a minimum of approximately 250 feet from the railroad tracks. The closest residential units to the railroad tracks are on the South Campoli project site and will be exposed to vibration levels of approximately 72 to 73 VdB. Residential land uses will not be exposed to vibration levels greater than the 75 VdB vibration limit for occasional events.[40] **(Less Than Significant Impact)**

[40] Occasional events are defined as between 30 and 70 vibration events of the same source per day.

Other Noise Impacts

The North Campoli and South Campoli project sites are not located in an Airport Influence Area (AIA) or in the vicinity of a private airstrip and the project will not, therefore, expose future residents of the site to excessive noise from air traffic. **(Less Than Significant Impact)**

4.12.2.2 Impacts from the Proposed Project

Traffic

The increased number of vehicle trips to and from the project sites will not be substantial and will not result in an increase in ambient noise levels in the project area. Traffic typically has to double in order to result in a 3dBA noise level increase. Traffic volumes will slightly increase with implementation of the projects as compared to existing conditions. Traffic noise levels will increase by 0 to 1 dBA L_{dn} as a result of the projects. (**Less Than Significant Impact)**

Construction Noise

Construction activities generate considerable amounts of noise. Construction of the residences could result in short term noise impacts. Construction-related noise levels are normally highest during the site preparation phase and during the construction of infrastructure. Typical hourly average construction generated noise levels are about 81 dBA to 88 dBA measured at a distance of 50 feet during busy construction periods (e.g., earth moving equipment etc.). Construction-related noise levels are normally less during building, finishing, and landscaping phases.

Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day, the 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 5 dBA L_{eq} at noise-sensitive uses in the project vicinity for a period of one year or more, the impact will be considered significant. Limiting the hours when construction can occur is often a simple method to reduce the potential for noise impacts.

Typically, significant noise impacts do not result when standard construction noise control measures are enforced at the project site and when the duration of the noise generating construction period is limited to one construction season (typically one year) or less. Noise generated by grading, infrastructure improvements, and the construction of building shells will not result in noise levels exceeding 60 dBA $L_{eq,}$ nor will it increase the ambient noise environment by five dBA L_{eq} for a period greater than one year.

Impact NOI-3 Construction activities at the North Campoli and South Campoli project sites will result in temporary noise impacts to adjacent residential development. **(Significant Impact)**

Mitigation Measures: The following mitigation measure will reduce temporary noise impacts from construction at the North Campoli and South Campoli project sites to a less than significant level.

MM-NOI 3.1 The following mitigation measures shall be implemented during all phases of construction.

- Construction activities shall be limited to the hours between 7:00 AM and 8:00 PM Monday through Friday, and between the hours of 9:00 AM and 6:00 PM on Saturdays. No construction activities should occur on Sundays or federal holidays (Consistent with Section 8.28.040 of the Morgan Hill Municipal Code).
- All internal combustion engine driven equipment shall be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Stationary noise generating equipment (e.g. rock crushers, compressors) shall be located as far as possible from adjacent residential receivers.
- Stationary equipment located near residential receivers shall be acoustically shielded with temporary noise barriers or recycled demolition materials.
- "Quiet" air compressors and other stationary noise sources where technology exists shall be utilized.
- 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.
- A "disturbance coordinator" who would be responsible for responding to any complaints about construction noise shall be designated. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem.

  (Less Than Significant Impact with Mitigation)

Groundborne Vibration

Construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. Construction activities will include site preparation work, foundation work, and new building framing and finishing. The proposed project will not require pile driving, which can cause excessive vibration.

For structural damage, the California Department of Transportation has established a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV) for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec, PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 in/sec, PPV for ancient buildings or buildings that are documented to be structurally weakened.

Drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration for short and intermittent periods of time during construction activities. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels will vary depending on soil conditions, construction methods, and equipment used. Vibration levels will be expected to be 0.2 in/sec PPV or less, below the 0.3 in/sec PPV significance threshold. Vibration generated by construction activities near the property line will at times be perceptible; however, will not be expected to result in "architectural" damage to these buildings. **(Less Than Significant Impact)**

While the project will not result in structural damage to existing buildings from vibration during construction, vibration levels may still be perceptible. The vibration will not be considered significant given the intermittent and short duration of the construction phases that have the highest potential to produce vibration (demolition and use of jackhammers and other high power tools). Use of administrative controls such as notifying adjacent residences of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration to hours with the least potential to affect sensitive uses, will reduce the impacts from perceptible vibration to a less than significant level. **(Less Than Significant Impact)**

4.12.3 Conclusion

Implementation of the listed mitigation measures will reduce noise impacts from development of the project sites to a less than significant level. **(Less Than Significant Impact with Mitigation)**

4.13 POPULATION AND HOUSING

4.13.1 Setting

The Morgan Hill General Plan assumes an average of 3.08 persons per single-family residential unit. The City's population in 2010 was 37,882 and is projected to grow to 45,800 by 2030.[41]

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

4.13.2 Environmental Checklist and Discussion of Impacts

POPULATION AND HOUSING						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information 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)?	☐	☐	☒	☐	☐	1,2
2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐	1,2
3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐	1,2

[41] U.S. Census Bureau, 2010 Census of Population. State & County QuickFacts: Morgan Hill (City). Last Modified January 2013. Available at: http://quickfacts.census.gov/qfd/states/06/0649278.html/. Accessed February 12, 2013.
Association of Bay Area Governments (ABAG), *Projections and Priorities 2009: Building Momentum, San Francisco Bay Area Population, Household, and Job Forecasts.* August, 2009.

4.13.2.1 Impacts from the Projects

Twenty-one single-family housing units (10 units and 11 units on the North Campoli and South Campoli sites, respectively) will be constructed as a part of these projects and the removal of one residential house and its resident(s) will not necessitate construction of replacement housing elsewhere in the City. (**Less Than Significant Impact**)

There is one single-family residence on the South Campoli project site that will be demolished and the residents will be displaced as a part of the project. The North Campoli and South Campoli projects propose subdivisions to allow for the construction of 10 single-family houses for the North Campoli project and 11 single-family houses for the South Campoli project. Assuming 3.08 persons per household for each residential unit, based on the City of Morgan Hill's Housing Element of the General Plan, the North Campoli project will generate a maximum of 31 new residents and the South Campoli project will generate a maximum of 34 new residents.[42] This is an incremental increase to the City's population currently estimated at 38,477.[43]

As explained 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 proposed project including provision of public services, site planning, and architectural design considerations. Population growth resulting from the proposed 21 residential units will be a part of the 250 new units allowed through the RDCS in a given year. The project proposed Planned Development (PD) and will not induce substantial unplanned residential development in the area. **(Less Than Significant Impact)**

4.13.3 Conclusion

Residential development of the North Campoli project site with 10 residences, and the South Campoli site with 11 residences, will not result in a substantial increase in population in the City of Morgan Hill above projected population levels nor will it induce substantial unplanned residential development in the area. **(Less Than Significant Impact)**

[42] City of Morgan Hill. *Housing Element*. September 2010.
[43] U.S. Census Bureau, Population Division. *Table 3. Annual Estimates of the Resident Population for Incorporated Places in California: April 1, 2010 to July 1, 2011*. June 2012. Available at: <http://www.census.gov/popest/data/cities/totals/2011/SUB-EST2011-3.html>. Accessed February 12, 2013.

4.14 PUBLIC SERVICES

4.14.1 Setting

4.14.1.1 Fire Service and Emergency Medical Services

The City of Morgan Hill Fire Department contracts for fire and emergency medical services with the California Department of Forestry and Fire Protection (CalFire). The City is served by three stations at the following locations (the first two are owned by the City of Morgan Hill; the last one is owned by CalFire): 1) El Toro Fire Station, located at 18300 Old Monterey Road (approximately 0.40 miles southeast of the project sites), 2) Dunne Hill Fire Station, located at 2100 East Dunne Avenue (approximately 4.0 miles southeast of the project sites), and 3) 15670 Monterey Street (approximately 3.0 miles south of the project sites). There are a number of performance goals contained in the City's Fire and Emergency Medical Services Master Plan Update (2002). In general, the response based performance goals state that a total travel time of five minutes and a total response time of seven minutes to 90 percent of all emergency responses should be maintained.[44]

4.14.1.2 Police Service

Police service is provided to the North Campoli and South Campoli project sites by the City of Morgan Hill Police Department. The Morgan Hill Police facility is located at 16200 Vineyard Boulevard, approximately 3.0 miles southeast of the project sites. The department employs 36 sworn officers. The Police Department's goal is to respond to Priority One calls within five minutes and Priority Two calls within 10 minutes. 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.

4.14.1.3 Schools

The North Campoli and South Campoli project sites are 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 sites will be served by P.A. Walsh Elementary School, (located approximately 2.0 miles south of the project sites), Britton Middle School (located approximately 1.5 miles southeast of the project sites), and Ann Sobrato High School (located approximately 2.5 miles northeast of the project sites).

4.14.1.4 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, fifty percent of the

[44] City of Morgan Hill. *Fire and Emergency Medical Services Master Plan Update*. 2002.

private homeowners association (HOA) recreational acreage is counted toward meeting the General Plan goal of 5.0 acres per thousand population. Additionally, the General Plan allows for10 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 37,882. This exceeds the City's goal of five acres of parkland per 1,000 capita.

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.

4.14.2 Environmental Checklist and Discussion of Impacts

PUBLIC SERVICES						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project: 1) 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?	☐	☐	☒	☐	☐	1,2
Police Protection?	☐	☐	☒	☐	☐	1,2
Schools?	☐	☐	☒	☐	☐	1,2
Parks?	☐	☐	☒	☐	☐	1,2
Other Public Facilities?	☐	☐	☒	☐	☐	1,2

4.14.2.1 Fire and Police Service

Future residences will be constructed in conformance with current building and fire codes, including features that will reduce potential fire hazards. Review of the North Campoli and South Campoli projects by CalFire and the Morgan Hill Police Department will incorporate appropriate safety features to reduce fire hazards and criminal activity.

The North Campoli and South Campoli project sites are located in an urban area and future residential development on the project sites will not substantially increase the demand for fire and police protection, or require construction or expansion of fire or police facilities.
(Less Than Significant Impact)

4.14.2.2 Schools

Future residential development on the site will increase the population of the project area and will, therefore, increase demand on local schools. Using the Morgan Hill Unified School District's student generation rate of 0.4732 students for single-family detached housing,[45] the North Campoli project will generate approximately five students at full build-out, and six students at full build-out for the South Campoli project. The nearby schools have capacity to serve the additional students generated by both projects.

State Law (Government Code Section 65996) specifies 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 65996 will be used to offset project-related increase in student enrollment. The proposed North Campoli and South Campoli projects will be required to comply with the school impact fee requirements of the Morgan Hill Unified School District. **(Less Than Significant Impact)**

4.14.2.3 Parks

The North Campoli and South Campoli residential projects will allow construction of 10 and 11 residential units, respectively. The average number of persons per household in Morgan Hill is 3.08 and future residential development on the project sites could generate up to 65 residents, 31 residents for North Campoli and 34 residents for South Campoli. If the City's parkland goal of five acres per 1,000 residents is implemented, the residential development project will be required to provide approximately 0.16 acres of public parkland for North Campoli and 0.17 acres for South Campoli. However, since the acreage for both sites is small; the proposed projects will not develop public parklands. Public parks, administered by the City of Morgan Hill Recreation and Community Services Department, are within 2.0 miles of the project sites and will 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-

[45] Anessa Pasillas, Supervisor of Maintenance, Morgan Hill Unified School District. E-mail: *RE: Student Generation Rates*. July 28, 2011.

lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. The projects will be required to comply with the City's parkland dedication or in-lieu fees for residential developments, which will avoid significant impacts to the City's park facilities. **(Less Than Significant Impact)**

4.14.3 Conclusion

With review of the North Campoli and South Campoli project designs 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 projects will reduce public services impacts to a less than significant level. **(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. .[46] 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 5.0 acres per thousand population. Additionally, the General Plan allows for10 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 37,882. This exceeds the City's goal of five acres of parkland per 1,000 capita.

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.

The City's General Plan has a parks and recreation goal to provide useful, accessible and high-quality parks, recreation, and trail facilities programs. To achieve this goal, the City 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.

4.15.2 Environmental Checklist and Discussion of Impacts

RECREATION						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project: 1) 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?	☐	☐	☒	☐	☐	1,2

[46] Rymer, Steve. Director of Recreation and Community Services, City of Morgan Hill. Email Communication September 20, 2011.

RECREATION						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project: 2) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐	☐	1,2

4.15.2.1 Impacts to Recreational Facilities

Future residential development could generate up to 31 residents for the North Campoli project and 34 residents for the South Campoli project. Using the City's parkland goal of five acres per 1,000 residents, the construction of 0.16 acres and 0.17 acres of public parkland would be required for the North Campoli and South Campoli projects, respectively. Given that the acreage for both projects is small, the construction of public parklands for the projects will not be required; instead fees will be paid to develop parkland elsewhere. In addition, given the small number of potential residents generated from both projects, the increased use of existing regional parks would not lead to an adverse physical effect on the environment. **(Less Than Significant Impact)**

Recreational facilities are within five miles of the North Campoli and South Campoli project sites. The recreational facilities have the capacity to serve the residents of both projects. The North Campoli and South Campoli projects would not have adverse physical effects on existing recreational facilities due to the small number of residents that can be generated from both projects.
(Less Than Significant Impact)

4.15.3 Conclusion

Due to the small number of potential residents generated from the North Campoli and South Campoli projects and the payment of in-lieu fees, the projects will not result in significant impacts to recreational facilities in the City of Morgan Hill. **(Less Than Significant Impact)**

4.16 TRANSPORTATION

4.16.1 Setting

4.16.1.1 Regional and Local Roadway Access

The regional and local roadway network providing access to the project sites is described below.

U.S. Highway 101 (US 101) is a north-south freeway that serves as the primary roadway connection between Morgan Hill and all other areas of Santa Clara County. US 101 extends north to San Francisco and south to Los Angeles. The freeway includes six lanes (three mixed-flow lanes in each direction) within most of Morgan Hill. North of Cochrane Road, US 101 widens to eight lanes including three mixed-flow lanes and one high occupancy vehicle (HOV) lane in each direction. HOV lanes, also known as diamond or carpool lanes, restrict use to vehicles with two or more persons (carpool, vanpool, and buses) or motorcycles during the morning (5:00 AM to 9:00 AM) and evening (3:00 PM to 7:00 PM) commute periods. The Cochrane Road interchange provides primary access to the project sites.

Monterey Road, through Morgan Hill, is generally a four-lane arterial roadway with separate left-turn lanes at intersections and on-street parking in some areas. Monterey Road extends from San José through the downtown area of Morgan Hill to the City of Gilroy. The speed limit on Monterey Road varies from 45 miles per hour (mph) north of Cochrane Road to 25 mph between Main Avenue and East Dunne Avenue in downtown. Several sets of speed lumps slow traffic through the downtown area.

Cochrane Road is an arterial roadway that extends from Monterey Road east to Anderson Lake. Cochrane Road is a two to six-lane roadway that provides an interchange with US 101 at the north end of the city. The speed limit is 45 mph.

Llagas Road is a collector that extends eastward from the City's western city limits to Old Monterey Road. The posted speed limit is 25 mph. Between Old Monterey Road and Llagas Creek Drive, the roadway is a two-lane road that provides left-turn lanes into the intersecting local streets. West of Llagas Creek Drive, Llagas Road is a two-lane facility.

Tilton Avenue is a two-lane collector road that provides a connection between Hale Avenue and Monterey Road. The posted speed limit is 35 mph.

Old Monterey Road is a two-lane road that provides a connection between Monterey Road and Campoli Drive. The road is approximately 0.6 mile and extends from Monterey Road to approximately 200 feet north of Campoli Drive. The speed limit is 25 mph on Old Monterey Road.

Campoli Drive is a substandard unpaved road that separates the North Campoli and South Campoli project sites and connects with Old Monterey Road.

4.16.1.2 Existing Transit Service

Bus Routes

The Santa Clara Valley Transportation Authority (VTA) operates fixed route, commuter, and paratransit bus service and light rail service (LRT) in Santa Clara County. VTA provides two bus routes (one local and one regional) that serve the project area. Monterey Salinas Transit (MST) operates transit service in Monterey County, and provides express bus service to Morgan Hill and San Jose.

Existing transit service near the project is illustrated on Figure 4.16-1 and is discussed below. Currently VTA Route 16 provides four transit stops and VTA Route 68 provides two transit stops within a half-mile of the project site.

Route 16, a local community bus, provides service between the Morgan Hill Civic Center and Burnett Avenue. Near the project site, Route 16 operates along Cochrane Road, Monterey Road, Peebles Avenue, and Burnett Avenue. Weekend service is not available.

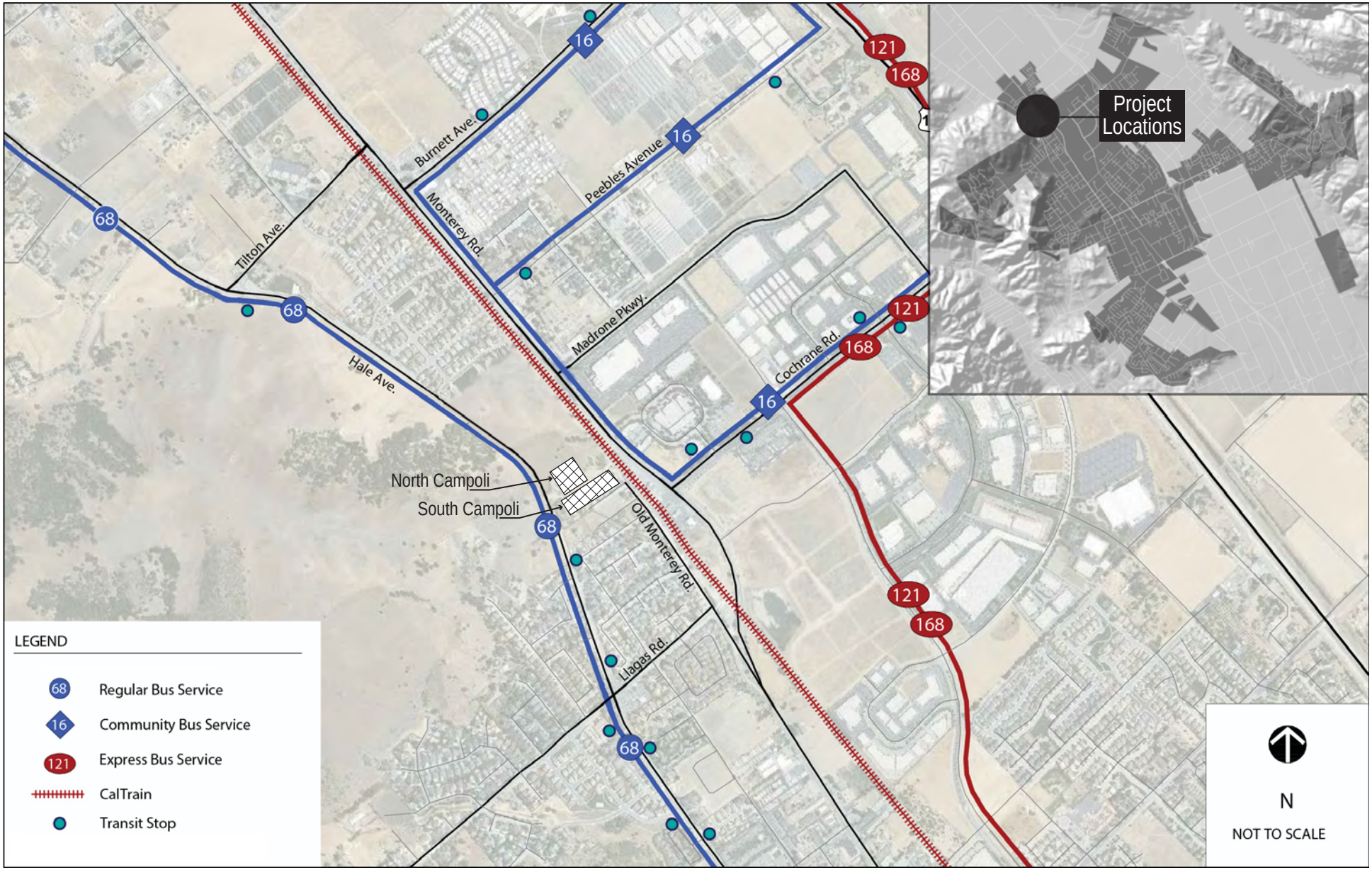
Route 68, a regional bus route, provides service through Morgan Hill via Hale Avenue. Route 68 provides connections with the Main and Hale Transit Center in Morgan Hill. Weekend service is available.

Route 121 operates through Morgan Hill via Butterfield Boulevard and Monterey Road. Route 121 provides connections with Route 68 and the Caltrain station in Morgan Hill. No weekend service is available.

Route 168 operates through Morgan Hill via Butterfield Boulevard and Monterey Road. Route 168 provides connections with Route 68 and the Caltrain station in Morgan Hill. No weekend service is available.

Caltrain Service

Caltrain provides regular train service between San José and San Francisco. Service extends south to Gilroy through Morgan Hill during commute periods, with three northbound trips during the AM peak period and three southbound trips during the PM peak period stopping at both the Gilroy and Morgan Hill Caltrain Stations. The Morgan Hill Caltrain Station is located east of Depot Street between First and Second Streets, approximately two miles southeast of the project sites.



TRANSIT FACILITIES

FIGURE 4.16-1

4.16.1.3 Existing Pedestrian and Bicycle Facilities

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals, and off-street paths that are meant to provide safe and convenient routes for pedestrians to access destinations such as institutions, businesses, public transportation, and recreation facilities.

In the vicinity of the North Campoli and South Campoli project sites, marked crosswalks are not provided at the Paloma Drive/Old Monterey Road intersection. Crosswalks are also absent at the Sanchez Drive/Old Monterey Road intersection. Sidewalk facilities are provided on the following roadway segments within the vicinity of the project sites:

- Bonita Drive between Paloma Drive and the South Campoli project site;
- West side of Old Monterey Road between Llagas Road and Sanchez Drive;
- East side of Monterey Road between Cochrane Road and Old Monterey Road;
- Llagas Road between Hale Avenue and Old Monterey Road; and
- Discontinuous segments along Monterey Road between Tilton Avenue and Cochrane Road.

Bicycle Facilities

Bicycle facilities comprise paths (Class I), lanes (Class II), and routes (Class III). Bicycle paths are paved trails that are separate from roadways. Bicycle lanes are lanes on roadways designated for bicycle use by striping, pavement legends, and signs. Bicycle routes are roadways designated for bicycle use by signs only.

No Class I bike paths or Class III bike routes exist in the project vicinity. Class II bike lanes are located along the following roadways in the project area:

- Monterey Road north and south of the project sites;
- Cochrane Road between Monterey Road and Madrone Parkway;
- Butterfield Boulevard south of Cochrane Road;
- Sutter Boulevard from Cochrane Road to Butterfield Boulevard;
- Llagas Road between Hale Avenue and Old Monterey Road
- Hale Avenue between Llagas Road and Madrone Parkway

4.16.2 Environmental Checklist and Discussion of Impacts

TRANSPORTATION/TRAFFIC						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information 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?	☐	☐	☐	☒	☐	1,2
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?	☐	☐	☒	☐	☐	1,2
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?	☐	☐	☐	☒	☐	1,2,13
4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	☐	☐	☒	☐	☐	1,2
5) Result in inadequate emergency access?	☐	☐	☒	☐	☐	1,2
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?	☐	☐	☒	☐	☐	1,2

4.16.2.1 Project Conditions

The proposed North Campoli project will allow for the development of 10 single-family detached residences on a 2.04-acre project site and the South Campoli project will allow for the development of 11 single-family detached residences on a 2.35-acre project site. The amount of traffic associated with the project was estimated using the trip generation process. The amount of traffic entering and exiting the project area was estimated on a daily and peak-hour basis.

Trip generation forecasts that would result from the projects were made for the weekday AM and PM peak hours. Trip generation was calculated using the Single-Family Dwelling Unit (Land Use 210) rates identified in *Trip Generation*, 8th Edition (Institute of Transportation Engineers (ITE), 2008). As shown in Table 4.16-1, implementation of the North Campoli and South Campoli projects combined will result in 201 new daily vehicle trips with 16 new AM and 21 new PM peak hour vehicle trips.

Table 4.16-1
Weekday Project Trip Generation Rates and Estimates

Use	Size (d.u.)[3]	Daily		AM Peak-Hour[1]				PM Peak-Hour[2]			
		Rate	Trips	Rate[4]	In	Out	Total	Rate	In	Out	Total
North Campoli Project											
Residential	10	9.57	96	0.75	2	6	8	1.01	6	4	10
South Campoli Project											
Residential	11	9.57	105	0.75	2	6	8	1.01	7	4	11
Trip Generation Rates and Estimates for Both Projects											
Residential	21	9.57	201	0.75	4	12	16	1.01	13	8	21

Notes:
1. Directional distribution: 25% entering, 75% exiting
2. Directional distribution: 63% entering, 37% exiting
3. d.u. = dwelling unit
4. Rate per dwelling unit

Source: Trip Generation, 8th Edition, Institute of Transportation Engineers (2008).

According to the City of Morgan Hill Guidelines for Preparation of Transportation Impact Reports, a transportation impact analysis is required for projects that add between 50 and 99 net new peak hour trips to the roadway system where nearby intersections are operating at LOS D or worse, or projected to operate at LOS D or worse with traffic added by approved developments, or when a project generates 100 or more net new peak hour trips (consistent with the Valley Transportation Authority [VTA] policy).

Based on the Institute of Traffic Engineers (ITE) Trip Generation, 8th Edition (2008), the North Campoli and South Campoli projects combined will generate approximately 21 PM peak hour trips and 16 AM peak hour trips.[47] Due to the low number of project-generated trips, the projects will not adversely impact levels of service at nearby signalized intersections.
(Less Than Significant Impact)

[47] Traffic trips calculated are based upon traffic counts listed in the Institute of Traffic Engineers, *Trip Generation, 8th Edition* for Single-Family Detached (210).

Transit, Pedestrian, and Bicycle Facilities

Currently VTA Route 16 provides four transit stops and VTA Route 68 provides two transit stops within a half-mile of the project site. Patrons utilizing Routes 121, 168 or Caltrain to access the project site will have to walk more than a half-mile to the nearest bus stop or Caltrain station. Transit ridership is, therefore, expected to be minimal and will not conflict with existing or planned transit facilities. **(Less Than Significant Impact)**

The North Campoli and South Campoli projects will provide sidewalks along one or both sides of all improved roadways, including Campoli Drive, the southern half of a new public street on the northern boundary of the North Campoli site, and a section of Old Monterey Road. There are no existing sidewalks that are adjacent to the North Campoli project site. Both projects will construct sidewalks along Campoli Drive to improve pedestrian access to adjacent land uses. A sidewalk will also be constructed along Old Monterey Road from Paloma Drive to the northeastern boundary of the North Campoli project. The projects will include adequate pedestrian circulation facilities. To prevent unsafe pedestrian crossing of the UPRR tracks to Monterey Road, the existing wire fencing east of Old Monterey Road will remain. **(Less Than Significant Impact)**

The City proposes to construct a Class II bicycle lane on Hale Avenue, Llagas Road, and Tilton Avenue near the project sites. On the east side of the project site, the existing rail road tracks provide a barrier to Monterey Road which is designated as a Class II bicycle lane. Bicyclists traveling east of Monterey Road can cross the railroad tracks at an at-grade crossing located at the intersection of Tilton Avenue/Monterey Road. The project does not conflict with any adopted bicycle plan, policy, or facility. **(Less Than Significant Impact)**

Site Access and Circulation

Emergency Vehicle Access

Emergency vehicle access considers two factors: whether the project site is accessible to emergency vehicles from other areas of the City (regional accessibility) and whether the individual parcels or sites within the project are accessible by various types of emergency vehicles (internal accessibility).

With final completion of the projects, the project sites will include two vehicle access locations for various areas of the project sites, which will be connected by an internal roadway network. The projects sites are accessible through a variety of roadways, which connect to the remaining areas of the City. The most likely access route will be via Old Monterey Road. The project sites are anticipated to be serviced by the El Toro fire station located approximately one half of a mile from the project sites.

Design plans will be reviewed by the Morgan Hill Fire Department to assure adequate emergency access. The projects will not, therefore, result in inadequate emergency access.
(Less Than Significant Impact)

Traffic Hazards

The projects include a sidewalk along one or both sides of all internal streets. A sidewalk will also be constructed along the Old Monterey Road along the eastern boundary of the projects. Crosswalks will be included in the site designs to provide areas that are safe for pedestrian street crossing. Prior to final approval of the project site plans, the City will confirm that adequate sight distance is provided at all driveways.

With review by the Morgan Hill Fire Department and the City, the projects will be in conformance with applicable standards and policies to avoid design feature hazards.

Air Traffic Patterns

The project sites are not located within the South County Airport Influence Area; therefore, development of the sites as proposed will not change air traffic patterns.[48]
(Less Than Significant Impact)

4.16.3 Conclusion

The North Campoli and South Campoli projects will not result in significant impacts to the transportation system. **(Less Than Significant Impact)**

[48] Santa Clara County Land Use Commission. *Comprehensive Land Use Plan, South County Airport.* November 2008. < http://www.sccgov.org/sites/planning/Plans%20-%20Programs/Airport%20Land-Use%20Commission/Documents/E16-(3100)Adopted-11-19-08-CLUP.pdf >. Accessed October 29, 2012.

4.17 UTILITIES AND SERVICE SYSTEMS

The following discussion is based on the City of Morgan Hill's Water System Master Plan, Sewer System Master Plan, and Storm Drainage System Master Plan (January 2002).

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, ten 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 City of Morgan Hill sewer collection system consists of approximately 135 miles of 6-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 Wastewater Treatment Facility (WWTF) in Gilroy. The WWTF is jointly owned by the cities of Gilroy and Morgan Hill. 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.

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 Regional Water Quality Control Board (RWQCB), Central Coast Region to treat up to 8.5 mgd. 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 were approximately 6.8 mgd in 2010. Based on combined population projections for both cities, the current capacity of 8.5 mgd will be reached in approximately 2019.[49]

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

[49] MWH Global and Akel Engineering Group. Draft– South County Regional Wastewater Authority Wastewater Flow Projections 2011. July 2011.

Sanitary Landfill. Johnson Canyon Sanitary Landfill is anticipated to reach capacity in 2043. Greenwaste Recovery provides services to Unincorporated Southern Santa Clara County.[50]

4.17.1.4 Storm 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.

The project site is located within the Fisher Creek drainage area. Fisher Creek Basin drains the northern portion of the City and continues in a northerly direction to the San Francisco Bay. Fisher Creek generally drains the area north of Llagas Road and Cochrane Road, and west of Highway 101.

4.17.2 Environmental Checklist and Discussion of Impacts

UTILITIES AND SERVICE SYSTEMS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐	☐	1,2,20
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?	☐	☐	☒	☐	☐	1,2,20
3) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	☐	1,2,21

[50] Phil Couchee, General Manager, Recology South Valley. February 3, 2010.

UTILITIES AND SERVICE SYSTEMS						
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Source(s)
Would the project:						
4) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐	☐	1,2,22
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?	☐	☐	☒	☐	☐	1,2,20, 22
6) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	☐	1,2
7) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐	☐	1,2

4.17.2.1 Impacts from the Proposed Project

The project proposes a subdivision to allow for the construction of 10 single-family houses on the North Campoli site and 11 single-family houses on the South Campoli site. The North Campoli project site is currently vacant with two outbuildings. The South Campoli site is comprised of one single-family residence, but the majority of the site is vacant.. The development of the sites with residential units will result in increased water usage, sanitary sewer and waste generation, electricity and gas usage from both sites. Approval of the 10 residential units at North Campoli and 11 residential units at South Campoli project sites through the RDCS process will ensure consistency with the growth rate in the City's General Plan and the projects will not, therefore, exceed the City's planned water, wastewater treatment, solid waste, electrical, or gas use demand.
(Less Than Significant Impact)

The project will add approximately 75,565 s.f. (1.73 acres) of impervious surfaces to the North Campoli site and 43,055 s.f. (0.99 acres) of impervious surfaces to the South Campoli site, which will increase stormwater runoff from both sites. Based on the City of Morgan Hill's detention basin design standard, the South Campoli site will be required to minimally detain water from a 25-year storm with 25 percent freeboard. To achieve this standard for the South Campoli site, the site will be graded to direct excess stormwater toward the rain tank stormwater treatment system (functions as a detention basin), which will be located along the length of the western portion of the site,

approximately 30 feet east of Fisher Creek. No detention basins will occur on the North Campoli project site.

Stormwater from the project sites will be collected from the streets by storm drains which will: 1) release the stormwater into the City's existing stormwater system for the North Campoli site; and 2) release stormwater into stormwater bioretention basins, which discharges into the City's stormwater system along Paloma Drive.

As described in Section 4.9, *Hydrology,* the projects will incorporate mitigation measures and BMPs to avoid and minimize impacts to water quality from erosion during construction activities. With incorporation of mitigation measures and BMPs, the projects will not result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which will result in significant environmental effects. **(Less Than Significant Impact)**

4.17.3 Conclusion

The proposed projects will not increase demand for utility services and systems beyond the City's supply capabilities. Construction of the proposed drainage improvements will not result in significant environmental impacts. **(Less Than Significant Impact)**

4.18 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information 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?	☐	☒	☐	☐	☐	1-21
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)?	☐	☐	☒	☐	☐	1-21
3) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☒	☐	☐	1-21
4) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐	1-21

4.18.1.1 Findings

The proposed projects will not impact mineral resources, agriculture, or forest resources. The projects will result in less than significant impacts related to aesthetics, geology, greenhouse gas emissions, land use, population and housing, public services, recreation, transportation, and utility systems in the City of Morgan Hill.

The projects will result in temporary air quality, water quality, and noise impacts resulting from construction. These impacts will be reduced to a less than significant level through implementation of the mitigation measures and best management practices proposed as mitigation in this Initial Study. There are no known cultural resources at the project sites; however, construction activities could uncover unknown subsurface cultural resources. With implementation of the standard mitigation measures listed in this Initial Study, impacts to unknown cultural resources at the site will be reduced to a less than significant level.

Construction of the projects could result in vegetation removal that could result in the incidental loss of eggs or nestlings which are protected under the Migratory Bird Treaty Act (MBTA). With completion of the applicable pre-construction bird surveys and implementation of a buffer zone in consultation with the CDFW (if applicable), impacts to protected birds at the project sites will be mitigated to a less than significant level.

The projects could result in impacts to special-status animal species including the western burrowing owl, and the pallid bat. Implementation of mitigation measures listed in this Initial Study will reduce impacts to these species to a less than significant level.

There were no hazards or hazardous materials found to have a significant impact on the project sites. The one-story single family home that is located on the South Campoli project site was built in 1947. Since the home was constructed prior to the implementation of lead-based paint and ACMs regulations, a visual inspection/pre-demolition survey, and possible sampling, shall be completed prior to the demolition of on-site structures to determine the presence of these materials.

Anticipated projects in the project area include build-out of the HST which will be located adjacent to the project sites between the UPRR right-of-way and Monterey Road. Rail traffic along the conventional railroad line adjacent to the site is also planned to increase with the implementation of the Caltrain South County Commuter Rail Project and other growth in rail service. Additionally, a vacant area adjacent to and north of the North Campoli project site is approved for development of 108 residences. Build-out of the rail projects and residential development will result in temporary construction-related impacts in the area to hydrology, water quality, noise, and air quality. These projects could also result in impacts to unknown cultural resources. The proposed North Campoli and South Campoli projects include mitigation measures to reduce significant impacts to a less than significant level. Projects in the area will also be required to undergo (or already have undergone) environmental review and mitigate significant impacts to a less than significant level, as feasible. It is not anticipated that the North Campoli and South Campoli projects in combination with future rail and residential projects will result in cumulatively considerable impacts.

With the implementation of mitigation measures described in this report, development of the project sites with residential uses will not result in significant environmental impacts to biologic or cultural resources, impede attainment of long-term environmental goals, or cause substantial adverse effects on human beings, either directly or indirectly. Residential development on the project sites will be subject to applicable policies of the General Plan and existing laws and regulations as described in this Initial Study to reduce all anticipated environmental effects to an acceptable level.

Checklist Sources

1. CEQA Guidelines - Environmental Thresholds (Professional judgment and expertise and review of project plans).
2. City of Morgan Hill. *General Plan* and *Zoning Ordinance.*
3. Live Oak Associates, Inc. *Biological Constraints Analysis of the South Campoli Drive Site, Morgan Hill, Santa Clara County, California.* February 2013.
4. California Department of Conservation. S*anta Clara County Important Farmland 2010.* June 2011.
5. Bay Area Air Quality Management District (BAAQMD). *Air Quality Guidelines.* June 2011.
6. Illingworth & Rodkin, Inc. *Campoli Residential Projects in Morgan Hill, CA - TAC and $PM_{2.5}$ Assessment.* April 2012.
7. County of Santa Clara, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, City of San Jose, City of Gilroy, City of Morgan Hill, California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service. Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) Project. *Final Santa Clara Valley Habitat Plan*. January 2013.
8. Holman & Associates. *Cultural Resources Study of the Campoli Residential Project Areas*. July 2012.
9. Association of Bay Area Governments (ABAG). *Earthquake and Hazards Information.* 2011.
10. TERRASEARCH, Inc. *Geotechnical Investigation on Proposed Residential Development.* 2006.
11. City of Morgan Hill. *Geology, Geologic and Geotechnical Hazards. Ground Movement Potential Map*. December 1991.
12. Enviro Assess. *Phase I Environmental Site Assessment.* June 2012.
13. City of Morgan Hill. *Morgan Hill Catholic High School Final EIR*. 2002.
14. Santa Clara County Airport Land Use Commission. *Comprehensive Land Use Plan, South County Airport.* November 2008.
15. City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009
16. Federal Emergency Management Agency (FEMA). *Flood Insurance Rate Map Community Panel Number 06085C0443H*. 2009.
17. Association of Bay Area Governments, *Dam Failure Inundation Hazard Map for Morgan Hill,* 1995.
18. Illingworth & Rodkin, Inc. *North Campoli Drive Residential Project in Morgan Hill, CA - Noise and Vibration Assessment.* May 2012.
19. Illingworth & Rodkin, Inc. *South Campoli Drive Residential Project in Morgan Hill, CA - Noise and Vibration Assessment.* May 2012.
20. City of Morgan Hill, *Sewer System Master Plan,* January 2002.
21. City of Morgan Hill. *City of Morgan Hill, Storm Drainage System Master Plan*, January 2002.
22. City of Morgan Hill, *Water System Master Plan,* January 2002.

SECTION 5 REFERENCES

Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill.,* 1995. Available at: <http://www.abag.ca.gov/cgi-bin/pickdamx.pl>. Accessed October 3, 2012.

--. 2012. *Earthquake and Hazards Information.* Available at: <http://gis.abag.ca.gov/website/liquefactionsusceptibility/>. Accessed September 18, 2012.

--. 2009. *Projections and Priorities 2009. Building Momentum. San Francisco Bay Area Population, Household, and Job Forecasts*.

Basin Research Associates. *Cultural Resources Supplement.* April 2000.

Bay Area Air Quality Management District. *Bay Area 2010 Clean Air Plan*. September 2010. Available at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans.aspx>. Accessed October 3, 2012.

--. 2011. *California Environmental Quality Act Air Quality Guidelines*. May.

--. 2012. *Stationary Source Screening Analysis Tool*. May. Available at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. Accessed October 3, 2012.

California Department of Conservation. S*anta Clara County Important Farmland.* June 2011. Available at: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/scl10.pdf>. Accessed October 3, 2012.

--. 1982. *Special Studies Zones. Revised Official Map*. January.

California Department of Finance. *Census 2010. Demographic Profiles. Table 1- Total population, median age, sex, age, household and family size.* April 2010. Available at: <http://www.dof.ca.gov/research/demographic/state_census_data_center/census_2010/>. Accessed October 3, 2012.

California Energy Commission. *2009 California Climate Adaptation Strategy Discussion Draft.* August 2009. Available at: <http://resources.ca.gov/climate_adaptation/docs/Statewide_Adaptation_Strategy.pdf >. Accessed October 3, 2012.

California Environmental Protection Agency. *Cortese List: Section 65962.5(a).* October 2011. Available at: <http://www.calepa.ca.gov/sitecleanup/corteselist/SectionA.htm>. Accessed October 3, 2012.

California High Speed Rail Authority. *Bay Area to Central Valley High-Speed Train Partially Revised Final Program EIR*. April 2012.

California Public Utilities Commission. *GHG Calculator version 3c*. October 2010. Available at: <http://ethree.com/public_projects/cpuc2.php>. Accessed October 3, 2012.

City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface.* March 2009. Available at: <http://www.morgan-hill.ca.gov/index.aspx?nid=657>. Accessed October 3, 2012.

--. 2012. *Code of Ordinances. Supplement History Table. Title 18 – Zoning. Division I. Zoning Code. Chapter 18.12 – R1-7000 Single-Family Medium Density District*. Available at: <http://library.municode.com/index.aspx?clientId=16502>. Accessed August 23, 2012.

--. 2012. *Design Standards. Storm Drain Design Standards: Section 4*. Available at: <http://www.morgan-hill.ca.gov/DocumentView.aspx?DID=808>. Accessed August 22, 2012.

--. 2010. *Draft Housing Element*. September.

--. 2002. *Fire and Emergency Medical Services Master Plan Update.*

--. 1991. *Geology, Geologic and Geotechnical Hazards. Ground Movement Potential Map.* December.

--. 2010. *Guidelines for Preparation of Traffic Impact Reports.* February.

--. 2009. *Hale-Signature General Plan Amendment Initial Study/Negative Declaration*. August.

--. 2011. *Morgan Hill Agricultural Policies and Implementation Program*. December.

--. 2002. *Morgan Hill Catholic High School Final Environmental Impact R*eport. February.

--. 2010. *Morgan Hill General Plan. February.*

--. 2000. *Parks, Facilities & Recreation Programming Master Plan.* December.

--. 2011. *Residential Development Control System Implementation Policies (RDCS).* July.

--. 2002. *Sewer System Master Plan*. January.

--. 2002. *Storm Drainage System Master Plan.* January. Available at: <http://ca-morganhill.civicplus.com/DocumentView.aspx?DID=622>. Accessed October 3, 2012.

County of Santa Clara, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, City of San Jose, City of Gilroy, City of Morgan Hill, California Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service. 2013. *Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) Project. Final Santa Clara Valley Habitat Plan.* January.

--. 2012. Species Accounts. *Smooth Lessingia*. August.

County of Santa Clara. *Santa Clara County Geologic Hazards Zones*. October 2006.

Enviro Assess. *Phase I Environmental Site Assessment*. *Campoli Drive Properties*. June 2012.

Environmental Data Resources Inc. *Certified Sanborn® Map Report. North Campoli Driv*e. Inquiry Number: 3273264.3. March 2012.

--. 2012. *EDR Historical Topographic Map Report. North Campoli Driv*e. Inquiry Number: 3273264.4. March.

--. 2012. *The EDR Aerial Photo Decade Package. North Campoli Driv*e. Inquiry Number: 3273264.5. March.

--. 2012. *The EDR-City Directory Abstract. North Campoli Driv*e. Inquiry Number: 3273264.6. March.

--. 2012. *The EDR Radius Map™ Report with GeoCheck®. North Campoli Driv*e. Inquiry Number: 3273264.2s. March.

Federal Emergency Management Agency (FEMA). *Flood Insurance Rate Map Community Panel Number 06085C0443H*. 2009. Available at: <https://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=firmetteHelp_A&title=FIRMettes. Accessed October 3, 2012.

Holman & Associates. *Archaeological Literature Review and Field Inspection for the Roman Catholic Diocese of San José High School Project Cultural Resources Study of the Campoli Residential Project Areas.* July 2012.

Illingworth & Rodkin, Inc. *Campoli Residential Projects in Morgan Hill, CA - TAC and $PM_{2.5}$ Assessment, Air Quality and Greenhouse Gas Emissions Analysis.* April 2012.

--. 2012. *Hale-Signature Residential Development Project in Morgan Hill, CA - Air Quality and GHG Emissions Analyses*. April.

--. 2012. *North Campoli Drive Residential Project in Morgan Hill, CA - Noise and Vibration Assessment Noise and Vibration Assessment.* May.

--. 2012. *South Campoli Drive Residential Project in Morgan Hill, CA - Noise and Vibration Assessment.* May.

Institute of Transportation Engineers. *Trip Generation. An ITE Informational Report*. Eighth Edition. Volume 2 of 3. 2008.

IPCC. *Summary for Policymakers*, In "Climate Change 2007: The Physical Science Bases. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change" [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor, and H.L. Miller (eds.)]. 2007. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at: http://ipcc.ch/. Accessed October 3, 2012.

Live Oak Associates, Inc. *Biological Constraints Analysis of the South Campoli Drive Site, Morgan Hill, Santa Clara County, California*. February 2013.

Santa Clara County Airport Land Use Commission. *Comprehensive Land Use Plan, South County Airport.* May 2008. Available at: < http://www.sccgov.org/sites/planning/Plans%20-%20Programs/Airport%20Land-Use%20Commission/Documents/E16-(3100)Adopted-11-19-08-CLUP.pdf>. Accessed October 29, 2012.

Santa Clara Valley Urban Runoff Pollution Prevention Program. *Stormwater Pollution Control Requirements*. December 2005.

Santa Clara Valley Water District. *Uvas-Llagas Watershed Map.* Available at: <http://www.valleywatercompplan.org/watersheds/view/449 >. Accessed October 3, 2012.

State Water Resources Control Board. *Storm Water Program*. Available at: <http://www.swrcb.ca.gov/water_issues/programs/stormwater/construction.shtml>. Updated July 2012. Accessed October 4, 2012

TERRASEARCH, Inc. *Geotechnical Investigation on Proposed Residential Development.* 2006.

U.S. Army Corps of Engineers. *Corps of Engineers Wetlands Delineation Manual*. January 1987.

U.S. Census Bureau. 2010 Census of Population. *State & County QuickFacts: Morgan Hill (City)*. Last Modified January 2013. Available at: <http://quickfacts.census.gov/qfd/states/06/0649278.html/>. Accessed February 12, 2013.

--. 2012. Population Division. *Table 3. Annual Estimates of the Resident Population for Incorporated Places in California: April 1, 2010 to July 1, 2011*. June 2012. Available at: <http://www.census.gov/popest/data/cities/totals/2011/SUB-EST2011-3.html>. Accessed February 12, 2013.

U.S. Department of Agriculture, Natural Resources Conservation Service. *Custom Soil Resource Report for Eastern Santa Clara Area, California. September 2012.*

Persons Contacted:

Anessa Pasillas, Supervisor of Maintenance, Morgan Hill Unified School District. E-mail: RE: Student Generation Rates. July 28, 2011.

Phil Couchee, General Manager, Recology South Valley. February 3, 2010.

Steve Rymer, Director of Recreation and Community Services, City of Morgan Hill. E-mail Communication, September 20, 2011.

SECTION 6 AUTHORS AND CONSULTANTS

Authors: **City of Morgan Hill**
Mitchell Oshinsky, Community and Economic Development Director
Steve Golden, Associate Planner

Consultants: **David J. Powers & Associates**
Environmental Planners and Consultants
Akoni Danielsen, Principal Project Manager
Julie Wright, Senior Project Manager
Amber Sharpe, Assistant Project Manager
Zach Dill, Graphic Artist

Holman & Associates
Archaeological Consultants
Miley Holman, President

Illingworth & Rodkin, Inc.
Acoustics and Air Quality Consultants
Jordan L. Roberts, Associate

Live Oak Associates, Inc.
Biological Consultants
Nathan Hale, Staff Ecologist/ Project Manager