
SECTION 3: ENVIRONMENTAL IMPACT ANALYSIS

Organization of Issue Areas

This Draft Environmental Impact Report (Draft EIR) provides analysis of impacts for those environmental topics where it was determined in the Notice of Preparation, or through subsequent analysis that the proposed project would result in “potentially significant impacts.” Sections 3.1 through 3.12 discuss the environmental impacts that may result with approval and implementation of the proposed project.

Issues Addressed in This EIR

The following environmental issues are addressed in Section 3:

- Aesthetics, Light, and Glare
- Air Quality/Greenhouse Gas Emissions
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise and Vibration
- Public Services and Recreation
- Transportation
- Utility Systems

Each environmental issue area in Sections 3.1 through 3.12 contains a description of:

1. The environmental setting as it relates to the specific issue
2. The regulatory framework governing that issue
3. The methodology used in identifying the issues
4. The significance criteria
5. An evaluation of the project-specific impacts and identification of mitigation measures
6. A determination of the level of significance after mitigation measures are implemented

Level of Significance

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the Final EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers in approving a project to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact against the applicable threshold. Thresholds were developed

using criteria from the CEQA Guidelines and checklist; state, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

Impact Analysis and Mitigation Measure Format

The format adopted in this EIR to present the evaluation of impacts is described and illustrated below.

Summary Heading of Impact

Impact AES-1: **An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact abbreviation identifies the section of the report (AES for Aesthetics, Light, and Glare in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.**

Impact Analysis

A narrative analysis follows the impact statement.

Significance Before Mitigation

This section identifies the level of significance of the impact before any mitigation is proposed.

Mitigation Measures

In some cases, following the impact discussion, reference is made to state and federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures, beyond those contained in other documents, are set off with a summary heading and described using the format presented below:

MM AES-1a Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible. The mitigation number links the particular mitigation to the impact with which it is associated (**AES-1** in this example); the letter identifies the sequential order of that mitigation for that impact (**a** in this example).

Significance After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

Abbreviations used in the mitigation measure numbering are:

| Code | Environmental Issue |
|-------------|--------------------------------------|
| AES | Aesthetics, Light, and Glare |
| AIR | Air Quality/Greenhouse Gas Emissions |
| BIO | Biological Resources |
| CUL | Cultural Resources |
| HAZ | Hazards and Hazardous Materials |
| HYD | Hydrology and Water Quality |
| LU | Land Use |
| NOI | Noise and Vibration |
| PSR | Public Services and Recreation |
| TRANS | Transportation |
| US | Utility Systems |

3.1 - Aesthetics, Light, and Glare

3.1.1 - Introduction

This section describes the existing aesthetics, light, and glare setting and potential effects from project implementation on visual resources and the site and its surroundings. Descriptions and analysis in this section are based on site reconnaissance by Michael Brandman Associates, as well as review of the City of Milpitas General Plan, Midtown Specific Plan, and Milpitas Zoning Ordinance.

3.1.2 - Environmental Setting

Aesthetic Character

Regional Setting

Milpitas is a suburban community located at the southern tip of San Francisco Bay between San Jose and Fremont. The City is bounded by baylands to the west and foothills to the east, with urban development located in the plain between the two features. The Mission Hills are the primary backdrop to the Milpitas area. Monument Peak (2,594 feet) is the highest point in the Mission Hills above Milpitas. Coyote Creek is the most prominent waterway in the city limits, paralleling the west side of Interstate 880 (I-880). Several smaller creeks, including Calera Creek, Arroyo de Los Coches, and Piedmont Creek, meander from the foothills through Milpitas to San Francisco Bay.

The City of Milpitas encompasses 13.6 square miles and has a population of 66,966. Within the city limits, residential uses generally occupy the northern and eastern portions of the City, while commercial and industrial uses occupy the western and southern portions. Notable land uses within the city limits include the Great Mall of the Bay Area, McCarthy Ranch Marketplace, the Union Pacific Milpitas Yard, and the Jose Higuera Adobe.

Project Site

The project site contains developed industrial land uses associated with the Preston Pipeline company.

The site contains 14 light industrial buildings with a combined total of approximately 144,000 square feet. Most of the square footage is contained within two buildings located within the western portion of the project site, with the balance of the square footage allocated among 12 smaller structures. Historic aerial photographs indicate that most of the buildings were developed within the last 15 years.

Outdoor storage activities occur in various places throughout the project site, including in the northern portion of the site along Calaveras Boulevard and in the southern portion of the site near Sinnott Lane. Vehicular access is provided at the Railroad Avenue cul-de-sac and Bothelo Lane. Ornamental landscaping consisting of trees and shrubs is located throughout the project site. Site photographs are provided in Exhibit 2-3.

Surrounding Land Uses*West*

The Union Pacific Railroad Warm Springs Subdivision, a single-track rail line linking Fremont and San Jose, forms the western boundary of the project site. West of the Warm Springs Subdivision is a mix of developed commercial and residential uses located along S. Main Street.

North

The Calaveras Boulevard (SR-237) overcrossing forms the northern boundary of the project site. The overcrossing, which consists of two parallel two-lane bridges, spans S. Main Street, Winsor Street, the Warm Springs Subdivision, Railroad Avenue, and the Union Pacific Railroad Milpitas Yard and Milpitas Subdivision. North of Calaveras Boulevard are light industrial uses.

East

The Union Pacific Railroad Milpitas Yard and Milpitas Subdivision, Ford Creek, and Bothelo Lane, form the eastern boundary of the project site. The Milpitas Yard is a multi-track facility that primarily sorts and stores rail cars for the adjoining Union Pacific Railroad Automobile Distribution Facility. The Milpitas Subdivision, a single-track rail line linking Fremont and Milpitas, provides rail access to the Milpitas Yard. The Bay Area Rapid Transit (BART) extension from Warm Springs (Fremont) to Berryessa (San Jose) is currently under construction parallel to the east side of the Milpitas Yard.

Ford Creek is a small, ephemeral drainage that is located between the project site and the Milpitas Yard. The drainage feature is contained in a culvert north and south of the project site.

Bothelo Lane is short, two-lane road that dead-ends at the existing rear entrance to the Preston Pipelines site.

South

Single-family residential uses, the Macedonia Missionary Baptist Church, and Sinnott Lane form the southern boundary of the project site. Sinnott Lane is short, two-lane road that connects Bothelo Lane with Hammond Way. The approximately 40-acre Union Pacific Railroad Automobile Distribution Facility is located south of Sinnott Lane and consists of a large black-topped area used for the classification and storage of new automobiles.

Views

The following is a description of surrounding land uses, including views to and from the project site. Exhibit 2-3 provides photographs of the project site. Exhibit 3.1-1 depicts views of surrounding land uses from the project site.



View of Union Pacific rail yard from location of proposed private park.



View of Union Pacific rail yard from Bothelo Lane.

Source: Michael Brandman Associates, 2012.



Michael Brandman Associates

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Exhibit 3.1-1 View of Surrounding Land Uses

West

Views from the project site looking west consist of the Union Pacific Railroad Warm Springs Subdivision, beyond which are the rear facades and fences of developed commercial and residential uses located along S. Main Street. Intermittent landscaping vegetation is located between the railroad and the commercial and residential uses.

Views of the project site from the west are limited by the commercial uses located along S. Main Street. Views of the project site can be seen from the rear portions of these commercial uses and consist primarily of the west facades of the onsite buildings and fencing along onsite outdoor storage.

North

Views from the project site looking north consist of mature trees and ruderal vegetation on the embankment of Calaveras Boulevard (SR-237) overcrossing, the overcrossing structure, and intermittent views of cars traveling on Calaveras Boulevard (SR-237).

Views of the project site from the north are primarily viewed from Calaveras Boulevard (SR-237), which is located at an elevation above that of the project site. Trees and vegetation on the overcrossing embankment intermittently block views of the project site from the roadway. Beyond the vegetation, views consist of a storage yard containing shipping containers and equipment, and the north facade of the northernmost onsite building.

East

Views of the Union Pacific Railroad Milpitas Yard and Milpitas Subdivision can be seen to the east of the project site beyond minor vegetation along Ford Creek. Views beyond the rail yard are generally blocked by stationary train cars. The Mission Hills can be seen in the distance beyond the rail yard.

Views of the project site from the east consist of minor vegetation along Ford Creek, the onsite buildings, outdoor storage and fencing. Views of the project site from the east are mostly limited to persons using the rail yard.

South

Views from the project site to the south consist of the rear-yard, single-family residential uses, the Macedonia Missionary Baptist Church, and Sinnott Lane. Beyond these land uses is the 40-acre Union Pacific Railroad Automobile Distribution Facility, which consists of a chain-link fence and a large area of blacktop and parked cars.

Views of the project site from the south are primarily blocked by fencing located along the rear or side yards of the residential uses and church.

Light and Glare

Project Site

The project site contains existing sources of light and glare from the existing industrial land uses.

Surrounding Areas

The commercial, industrial, and residential uses in the project vicinity have exterior sources of lighting (such as illuminated signage, and building-mounted and freestanding light fixtures). Street lighting and vehicular lighting are present on Calaveras Boulevard (SR-237).

The Union Pacific Railroad has indicated to the City of Milpitas a proposal to install seventeen 100-foot-tall light poles in the nearby Automobile Distribution Facility. Union Pacific Railroad claims immunity from City regulations regarding light standards for glare.

3.1.3 - Regulatory Framework

Local

City of Milpitas

The General Plan establishes a maximum residential density of 12 to 20 units per gross acre for the Multi-Family Residential High Density land use designation.

The City of Milpitas General Plan establishes the following principles and policies related to aesthetics, light, and glare that are applicable to the proposed project:

- **Principle 2.a-G-2:** Maintain a relatively compact urban form.
- **Policy 2.a-I-1:** New developments should not exceed the building intensity limits established in the General Plan.
- **Policy 2.a-I-10:** Foster community pride and growth through beautification of existing and future development.
- **Policy 2.a-I-11:** Create a park-like quality for all residential areas through the PUD process and the judicious siting of parks, schools and greenways throughout those areas.
- **Policy 2.a-I-22:** Develop the Midtown area, as shown on the Midtown Specific Plan, as an attractive and economically vital district that accommodates a mixture of housing, shopping, employment, entertainment, cultural and recreation activities organized with a system of landscaped boulevards, streets and pedestrian/bicycle linkages.
- **Policy 2.a-I-23:** Require development in the Midtown area to conform to the adopted design guidelines/requirements contained in the Midtown Specific Plan.
- **Principle 4.g-G-1:** Preserve and enhance the natural beauty of the Milpitas area.
- **Principle 4.g-G-3:** Enhance the visual impact of the gateways to Milpitas.
- **Principle 4.g-G-7:** Exempt all lands within the Valley Floor Planning Area from Scenic Corridor restrictions.
- **Policy 4.g-I-2:** Permit clustering of structures, in order to preserve open space while providing for desired development.

- **Policy 4.g.I-7:** Ensure that all landscaping within and adjoining a Scenic Corridor or Scenic Connector enhances the City’s scenic resources by utilizing an appropriate scale of planting, framing views where appropriate and not forming a visual barrier to views; relates to the natural environment of the scenic routes; and provides erosion control.

Municipal Code

Multi-Family High Density Residential (R3)

The Milpitas Municipal Code establishes development requirements for the Multi-Family High Density Residential (R3) zoning district. The Municipal Code allows for a density of 12 to 20 units per gross acre within the Multi-Family High Density Residential (R3) zoning district. The maximum allowable building heights are 3.5 stories (35 feet) for principal buildings and 2.5 stories (25 feet) for accessory buildings. The Municipal Code also requires that outdoor trash and storage areas and areas for collecting and loading recyclable materials shall be completely enclosed within a building or behind a solid wall or tight board fence a minimum of 6 feet in height.

Landscaping and open space requirements consist of a minimum of 25 percent of the total lot area (not including paved parking area) to be landscaped or provided as recreational open space. An average of 200 square feet of usable open space is required for each dwelling unit. At minimum, 30 percent of required open space shall be contiguous to and provide for private usable open space of individual dwelling units.

Tree Maintenance and Protection Ordinance

Milpitas Municipal Code Chapter 2 contains the Tree Maintenance and Protection Ordinance of the City of Milpitas. The ordinance requires that new development projects must receive a tree removal permit from the Public Works Department prior to removal and replacement. All trees that have a 37-inch or greater circumference of any trunk measured 4.5 feet from the ground and located on developed commercial or industrial property are protected. Street trees or other plantings that are required to be planted by a new development in accordance with plans and specifications approved by the City may be planted without a permit, provided, however, that such trees and plantings shall conform to City-approved plans and specifications and shall be planted under the supervision of the Public Works Department.

Midtown Specific Plan

The Midtown Specific Plan consists of eight elements. The Community Design Element contains goals and policies related to aesthetics, light, and glare that are applicable to the proposed project.

Community Design Element

The Milpitas Midtown Specific Plan’s Community Design Element addresses the character of the built environment of the Midtown Area, setting forth policies that address new development as well as the improvement of public spaces and streetscapes. The intent of the Community Design Element is to help guide reinvestment in the central portion of Milpitas to create an attractive, high-quality,

built environment. The Community Design Element establishes the following goal and policy related to aesthetics, light, and glare that are applicable to the proposed project.

- **Goal 1:** Create an attractive district that is uniquely Milpitas.
- **Goal 2:** Establish a pedestrian-oriented mixed-use district that is centered on Main Street.
- **Goal 3:** Provide urban open spaces (i.e., plazas, squares) that serve multiple purposes and can be used for special events.
- **Goal 4:** Improve the character of the streets within the area.
- **Policy 5.2:** Design buildings to create an attractive street wall which defines and activates the street space.
- **Policy 5.3:** Promote high-quality private development that contributes to the visual identity and environmental quality of the Midtown Area through the application of the Development Standards and Design Guidelines.

Note that the Development Standards and Design Guidelines included in the Midtown Specific Plan are intended to supplement zoning standards for areas designated as Multi-Family Very High Density (R4) and Mixed-Use District (MXD) zones.

3.1.4 - Methodology

Michael Brandman Associates (MBA) evaluated potential project impacts on aesthetics, light, and glare through site reconnaissance and review of applicable plans and policies. Michael Brandman Associates personnel visited the project site in April 2012, and documented site conditions and relationships to surrounding land uses with photographs. Michael Brandman Associates personnel also reviewed aerial photographs, topographical maps, street maps, project plans, and elevations to identify surrounding land uses and evaluate potential impacts from project development. The City of Milpitas General Plan, Midtown Specific Plan, and the Milpitas Zoning Ordinance were reviewed to determine applicable policies and design requirements for the proposed project.

3.1.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist of the CEQA Guidelines, aesthetics impacts resulting from the implementation of the proposed project would be considered significant if the project would:

- a) Have a substantial adverse effect on a scenic vista? (Refer to Section 7, Effects Found Not To Be Significant.)
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway? (Refer to Section 7, Effects Found Not To Be Significant.)
- c) Substantially degrade the existing visual character or quality of the site and its surroundings?

- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

3.1.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Visual Character

Impact AES-1: **The proposed project would not substantially degrade the visual character of the project site or its surroundings.**

Impact Analysis

This impact assesses the proposed project's impacts on the visual character of the project site and its surroundings.

Project Site

The proposed project would construct as many as 220 dwelling units consisting of a mixture of single-family and townhome units. A private park would be developed within an open space area consisting of 1.2 acres immediately adjacent to Calaveras Boulevard. There is also potential for an area adjacent to the Ford Creek, which may be used for recreation purposes, including a bicycle route to connect Railroad Avenue and Hammond Way.

The proposed project would result in an average density of 14.2 dwelling units per acre, which is within the General Plan's maximum residential density of 12 to 20 units per gross acre for the Multi-Family Residential High Density land use designation. The residences would be three stories tall and would therefore be within the Municipal Code's maximum allowable building height of 3.5 stories (35 feet).

Residences would be oriented in rows with front facades facing landscaped paseos and rear facades facing looped motor courts. The design and appearance of the residences would vary and would incorporate design features to reflect Cape Cod, Craftsman, and Contemporary American West architectural styles. The buildings elevations would have varied architectural elements to break up the mass of the buildings. Approximately 300 square feet of open space would be provided for each dwelling unit. A landscaping and open space plan for the project site was not available at the writing of this document. As such, mitigation is proposed requiring the submittal of a landscaping and open space plan to the City of Milpitas for review and approval. Implementation of this mitigation would ensure the proposed project is consistent with zoning regulations regarding the provision of landscaping and open space.

Surrounding Areas

The project site is located within an industrial and commercial area of the City of Milpitas. Land uses in the project vicinity consist of railroads, railroad yards, commercial, industrial and residential land

uses. Areas surrounding the project site are primarily commercial and industrial and do not maintain a visual character of particularly high quality. The proposed project would consist of a high-density residential development and would employ a consistent and appealing character through the use of high-quality building materials and the provision of landscaping throughout. Views of the project site from surrounding areas would change from that of industrial buildings and storage to a landscaped residential neighborhood. Therefore, the development of the proposed project would likely benefit the visual character of the surrounding area.

Conclusion

The proposed project would construct up to 220 dwelling units on a site currently used for industrial purposes. The density and visual character of the dwelling units would be consistent with the Multi-Family Residential High Density land use and zoning district and the applicable goals and policies of the Midtown Specific Plan. As such, the proposed project presents a different visual characteristic for the project site. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AES-1 Prior to the issuance of building permits, the project applicant shall submit to the City of Milpitas a landscaping and open space plan for the project site. The plan shall illustrate that the project incorporates landscaping and open space as required by Section XI-10-4.05 of the Milpitas Municipal Code.

Level of Significance After Mitigation

Less than significant impact.

Light and Glare

Impact AES-2: The proposed project may result in the addition of new sources of substantial light and glare that would adversely affect daytime or nighttime views.

Impact Analysis

The project site contains sources of light and glare from the existing industrial land uses. The proposed project would replace the industrial land uses with up to 220 dwelling units and associated infrastructure. Lighting would be implemented onsite in the form of building-mounted lighting, street lighting, and security lighting. The proposed project's lighting would not introduce significant new sources of nighttime lighting because the existing industrial land uses already employ building-mounted lighting and security lighting. Furthermore, the Union Pacific Railroad has indicated to the City of Milpitas its intent to install seventeen 100-foot-tall lights in the nearby Automobile Distribution Facility, which would further increase the ambient light and glare environment. Union Pacific Railroad claims immunity from the City's standards for light glare. Finally, project lighting would be directed so it would minimize unwanted spillover effects on surrounding properties, thereby

conforming to lighting standards and guidelines contained within the Midtown Specific Plan and the Milpitas Municipal Code. Therefore, the proposed project would not represent the introduction of new sources of nighttime lighting to the project site.

However, given the foreseeable introduction of substantial light glare from the Union Pacific Railroad site for which the City has no jurisdiction, the project may be exposed to this nuisance. As such, mitigation is proposed requiring the use of various design techniques intended to avoid or minimize project exposure to lighting associated with this facility. With the implementation of mitigation, impacts would be reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AES-2 Prior to issuance of building permits, the project applicant shall prepare and submit building plans to the City of Milpitas depicting design techniques intended to avoid or minimize project exposure to nighttime lighting associated with the Union Pacific Railroad Automobile Distribution Facilities. Such techniques may include but are not limited to (1) minimizing the number of windows facing the facility, (2) use of blackout blinds or comparable devices on windows that face the facility, (3) planting of landscaping along the eastern project site boundary, (4) or the establishment of a park buffer along the eastern project site boundary. The approved plans shall be incorporated into the proposed project.

Level of Significance After Mitigation

Less than significant impact.

3.2 - Air Quality/Greenhouse Gas Emissions

3.2.1 - Introduction

This section describes the existing air quality setting and potential effects from project implementation on the site and its surrounding area. Michael Brandman Associates performed air quality analysis for the proposed project, which included construction and operational air quality modeling and greenhouse gas emissions modeling. URBEMIS 2007 Version 9.2 was used to quantify project-related emissions. The air quality analysis, including model output, is provided in Appendix B.

3.2.2 - Environmental Setting

The project site is located in the City of Milpitas, which is within the Santa Clara Valley subregion of the San Francisco Bay Area Air Basin (Air Basin). The Air Basin comprises all or portions of the nine Bay Area counties. Air quality in the Air Basin is regulated by the United States Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and the Bay Area Air Quality Management District (BAAQMD). The regulatory responsibilities of these agencies are discussed in the Regulatory Framework section.

Regional and local air quality is impacted by dominant airflows, topography, atmospheric inversions, location, season, and time of day. These characteristics are discussed in relation to the Air Basin.

Regional Setting

Regional Climate

Meteorology is the study of weather and climate. Weather refers to the state of the atmosphere at a given time and place relating to temperature, air pressure, humidity, cloudiness, and precipitation. Weather refers to conditions over short periods; conditions over long periods, generally at least 30 to 50 years, are referred to as climate. Climate in a narrow sense is usually defined as the “average weather,” or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period ranging from months to thousands or millions of years. These quantities most often are surface variables such as temperature, precipitation, and wind.

A semi-permanent, high-pressure area centered over the northeastern Pacific Ocean dominates the summer climate of the West Coast. Because this high-pressure cell is quite persistent, storms rarely affect the California coast during the summer. Thus, the conditions that persist along the coast of California during summer are a northwest airflow and negligible precipitation. A thermal low-pressure area from the Sonoran-Mojave Desert also causes air to flow onshore over the San Francisco Bay Area much of the summer.

The steady northwesterly flow around the eastern edge of the Pacific High (a high-pressure cell) exerts stress on the ocean surface along the west coast. This induces upwelling of cold water from below. Upwelling produces a band of cold water off San Francisco that is approximately 80 miles

wide. During July, the surface waters off San Francisco are 3 degrees Fahrenheit (°F) cooler than those off Vancouver, British Columbia, more than 900 miles to the north. Air approaching the California coast, already cool and moisture-laden from its long trajectory over the Pacific, is further cooled as it flows across this cold bank of water near the coast, thus accentuating the temperature contrast across the coastline. This cooling is often sufficient to produce condensation—a high incidence of fog and stratus clouds along the Northern California coast in summer.

Santa Clara Valley Climate Subregion

The northwest-southeast-oriented Santa Clara Valley is bounded by the Santa Cruz Mountains to the west, the Diablo Range to the east, the San Francisco Bay to the north and the convergence of the Gabilan Range and the Diablo Range to the south. Temperatures are warm in summer, under mostly clear skies, although a relatively large diurnal range results in cool nights. Winter temperatures are mild, except for very cool but generally frostless mornings. At the northern end of the Santa Clara Valley, the San Jose Airport mean maximum temperatures range from the high 70s to the low 80s during the summer to the high 50s to the low 60s during the winter, and mean minimum temperatures range from the high 50s during the summer to the low 40s during the winter. Further inland where the moderating effect of the Bay is not as strong, temperature extremes are greater. For example, the BAAQMD's San Martin station, located 27 miles up the Santa Clara Valley from the San Jose Airport, can be greater than 10 degrees Fahrenheit warmer on hot summer afternoons and greater than 10 degrees cooler during cold winter nights. Rainfall amounts are modest ranging from 13 inches in the lowlands to 20 inches in the hills.

The wind patterns in the valley are influenced greatly by the terrain, resulting in a prevailing flow roughly parallel to the valley's northwest-southeast axis with a north-northwesterly sea breeze extending up the valley during the afternoon and early evening and a light south-southeasterly drainage flow occurring during the late evening and early morning. In summer, a convergence zone is sometimes observed in the southern end of the valley between Gilroy and Morgan Hill, when air flowing from the Monterey Bay through the Pajaro Gap is channeled northward into the south end of the Santa Clara Valley and meets with the prevailing north-northwesterlies. Speeds are greatest in the spring and summer, and least in the fall and winter seasons. Nighttime and early morning hours have light winds and are frequently calm in all seasons, while summer afternoon and evenings are quite breezy. Strong winds are rare, coming only with an occasional winter storm.

The air pollution potential of the Santa Clara Valley is high. The valley has a large population and the largest complex of mobile sources in the Bay Area—a major source of carbon monoxide, particulate, and photochemical air pollution. In addition, photochemical precursors from San Francisco, San Mateo, and Alameda counties can be carried along by the prevailing winds to the Santa Clara Valley, which makes it a major ozone receptor. Geographically, the valley tends to channel pollutants to the southeast with its northwest-southeast orientation, and to concentrate pollutants by its narrowing to the southeast. Meteorologically, on high-ozone, low-inversion summer days, the pollutants can be recirculated by the prevailing northwesterlies in the afternoon and the light

drainage flow in the late evening and early morning, increasing the impact of emissions significantly. On high particulate and carbon monoxide days during late fall and winter, clear, calm, and cold conditions associated with a strong surface-based temperature inversion prevail.

Local Setting

Local Climate

Milpitas is characterized by a Mediterranean climate, with warm summers, mild winters, and low precipitation. Temperatures in the Milpitas area range from an average high of 80.6 degrees Fahrenheit (°F) in July and August to an average low of 41.4°F in January. Rainfall averages 12.48 inches annually. General meteorological data for the Milpitas area, as measured at the San Jose International Airport weather station, are presented in Table 3.2-1.

Table 3.2-1: Milpitas Meteorological Summary

| Month | Temperature (°F) | | Precipitation (inches) |
|---|------------------|-------------|------------------------|
| | Average High | Average Low | |
| January | 59.0 | 41.4 | 2.31 |
| February | 61.3 | 43.5 | 2.89 |
| March | 65.4 | 45.6 | 1.77 |
| April | 67.5 | 47.3 | 1.14 |
| May | 73.4 | 51.7 | 0.30 |
| June | 78.2 | 55.5 | 0.16 |
| July | 80.4 | 57.9 | 0.00 |
| August | 80.6 | 58.1 | 0.01 |
| September | 80.6 | 57.1 | 0.05 |
| October | 74.3 | 52.5 | 0.70 |
| November | 65.4 | 45.9 | 1.11 |
| December | 59.2 | 41.7 | 2.09 |
| Annual Average | 70.4 | 49.9 | 12.48 |
| Note: Measurements recorded between 1998 and 2012. Source: Western Regional Climate Center, 2012. | | | |

Local Air Quality

Existing local air quality, historical trends, and projections of air quality are best evaluated by reviewing relevant air pollutant concentrations from near the project area. The BAAQMD operates an air monitoring station in San Jose, located at Jackson Street, approximately 5.5 miles south of the project site. Table 3.2-2 summarizes 2008 through 2010 published monitoring data from ARB’s Aerometric Data Analysis and Management System.

Table 3.2-2: Air Quality Monitoring Summary

| Air Pollutant | Averaging Time | Item | 2008 | 2009 | 2010 |
|---|---------------------|---|-------|-------|-------|
| Ozone | 1 Hour | Max 1 Hour (ppm) | 0.118 | 0.088 | 0.126 |
| | | Days > State Standard (0.09 ppm) | 1 | 0 | 5 |
| | 8 Hour | Max 8 Hour ¹ (ppm) | 0.080 | 0.069 | 0.086 |
| | | Days > State Standard (0.07 ppm) | 3 | 0 | 0 |
| | | Days > National Standard (0.075 ppm) | 2 | 0 | 3 |
| Carbon monoxide | 1 Hour ² | Max 1 Hour (ppm) | 3.54 | 3.57 | 3.13 |
| | 8 Hour | Max 8 Hour (ppm) | 2.48 | 2.50 | 2.19 |
| | | Days > State Standard (9.0 ppm) | 0 | 0 | 0 |
| | | Days > National Standard (9 ppm) | 0 | 0 | 0 |
| Nitrogen dioxide | Annual | Annual Average (ppm) | 0.017 | 0.015 | 0.014 |
| | 1 Hour | Max 1 Hour (ppm) | 0.080 | 0.069 | 0.064 |
| | | Days > State Standard (0.18 ppm) | 0 | 0 | 0 |
| Sulfur dioxide | 24 Hour | Max 24 Hour (ppm) | ID | 0.001 | 0.002 |
| Inhalable coarse particles (PM ₁₀) | Annual | State Annual Average ($\mu\text{g}/\text{m}^3$) | 23.4 | 20.3 | 19.5 |
| | 24 hour | Max 24 Hour ($\mu\text{g}/\text{m}^3$) | 57.3 | 43.3 | 46.8 |
| | | Est. Days > State Standard (50 $\mu\text{g}/\text{m}^3$) | 6.1 | 0.0 | 0.0 |
| | | Est. Days > National Standard (150 $\mu\text{g}/\text{m}^3$) | 0.0 | 0.0 | 0.0 |
| Fine particulate matter (PM _{2.5}) | Annual | State Annual Average ($\mu\text{g}/\text{m}^3$) | 11.5 | 10.1 | 9.0 |
| | 24 Hour | Max 24 Hour ($\mu\text{g}/\text{m}^3$) | 41.9 | 35.0 | 41.5 |
| | | Est. Days > National Standard (35 $\mu\text{g}/\text{m}^3$) | 5.1 | 0.0 | ID |
| Abbreviations: > = exceed ppm = parts per million $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter ID = insufficient or no data Max = maximum Est. = estimated State Standard = California Ambient Air Quality Standard National Standard = National Ambient Air Quality Standard ¹ From the California Measurement ² 1 hour CO concentrations are not recorded, but is calculated by dividing the 8 hour CO measurement by the “persistence” factor of 0.7. Sources: California Air Resources Board 2012. | | | | | |

3.2.3 - Regulatory Framework

Air pollutants are regulated at the national, state, and air basin level; each agency has a different degree of control. The EPA regulates at the national level, ARB regulates at the state level, and the BAAQMD regulates at the air basin level.

National and State

The EPA is responsible for global, international, national, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards, also known as federal standards. There are federal standards for six common air pollutants, called criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970. The criteria pollutants are:

- Ozone
- Particulate matter (PM₁₀ and PM_{2.5})
- Nitrogen dioxide
- Carbon monoxide (CO)
- Lead
- Sulfur dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts—air district prepares their federal attainment plan, which sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

The ARB also administers California Ambient Air Quality Standards (state standards) for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants are the six federal standards listed above as well visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

The federal and state ambient air quality standards, relevant effects, properties, and sources of the pollutants are summarized in Table 3.2-3 and Table 3.2-4.

Several pollutants listed in Table 3.2-3 and Table 3.2-4 are not addressed in this analysis. Analysis of lead is not included in this report because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed.

The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

Table 3.2-3: Bay Area Air Basin Attainment Status

| Pollutant | State Status | Federal Status |
|--|---------------|----------------------------|
| Ozone | Nonattainment | Nonattainment |
| Carbon monoxide | Attainment | Attainment |
| Nitrogen dioxide | Attainment | Attainment |
| Sulfur dioxide | Attainment | Attainment |
| PM ₁₀ | Nonattainment | Unclassified |
| PM _{2.5} | Nonattainment | Nonattainment ¹ |
| Lead | Attainment | Attainment |
| Sulfates | Attainment | No federal standards |
| Hydrogen Sulfide | Unclassified | |
| Visibility-reducing particles | Unclassified | |
| Notes: | | |
| ¹ The EPA lowered the 24-hour PM _{2.5} standard from 65 µg/m ³ to 35 µg/m ³ in 2006. EPA designated the Bay Area as nonattainment of the PM _{2.5} standard on October 8, 2009. The effective date of the designation is December 14, 2009 and the BAAQMD has 3 years to develop a plan, called a State Implementation Plan (SIP), that demonstrates the Bay Area will achieve the revised standard by December 14, 2014. The SIP for the new PM _{2.5} standard must be submitted to the EPA by December 14, 2012. Source: Bay Area Air Quality Management District, 2012. | | |

Table 3.2-4: Description of Air Pollutants

| Air Pollutant | Averaging Time | California Standard | Federal Standard ^a | Most Relevant Effects from Pollutant Exposure | Properties | Sources |
|--|----------------|---------------------|-------------------------------|--|--|---|
| Ozone | 1 Hour | 0.09 ppm | — | (a) Decrease of pulmonary function and localized lung edema in humans and animals; (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) increased mortality risk; (d) altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) vegetation damage; (f) property damage. | Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), NO _x , and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind. | Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO _x) are mobile sources (on-road and off-road vehicle exhaust). |
| | 8 Hour | 0.070 ppm | 0.075 ppm | | | |
| Carbon monoxide (CO) | 1 Hour | 20 ppm | 35 ppm | (a) Aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; (b) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) impairment of central nervous system functions; (d) possible increased risk to fetuses. | CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood. | CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources. |
| | 8 Hour | 9.0 ppm | 9 ppm | | | |
| Nitrogen dioxide ^c (NO ₂) | 1 Hour | 0.18 ppm | 0.100 ppm | (a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) contribution to atmospheric discoloration. | During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides - NO _x (NO, NO ₂ , NO ₃ , N ₂ O, N ₂ O ₃ , N ₂ O ₄ , and N ₂ O ₅). NO _x is a precursor to ozone, PM ₁₀ , and PM _{2.5} formation. NO _x can react with compounds to form nitric acid and related particles. | NO _x is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. NO ₂ concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations. |
| | Annual | 0.030 ppm | 0.053 ppm | | | |

Table 3.2-4 (cont.): Description of Air Pollutants

| Air Pollutant | Averaging Time | California Standard | Federal Standard ^a | Most Relevant Effects from Pollutant Exposure | Properties | Sources |
|---|---------------------|---|-------------------------------|--|--|---|
| Sulfur dioxide (SO ₂) | 1 Hour | 0.25 ppm | 0.075 ppm ^d | Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor. | Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO _x) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM ₁₀ . | Human-caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards. |
| | 3 Hour ¹ | — | 0.5 ppm | | | |
| | 24 Hour | 0.04 ppm | — | | | |
| Particulate matter (PM ₁₀) | 24 hour | 50 µg/m ³ | 150 µg/m ³ | (a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) declines in pulmonary function growth in children; (c) increased risk of premature death from heart or lung diseases in the elderly. | Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM ₁₀ refers to particulate matter that is between 2.5 and 10 microns in diameter, (1 micron is one-millionth of a meter). PM _{2.5} refers to particulate matter that is 2.5 microns or less in diameter. | Stationary sources include fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust. |
| | Mean | 20 µg/m ³ | — | | | |
| Particulate matter (PM _{2.5}) | 24 Hour | — | 35 µg/m ³ | Daily fluctuations in PM _{2.5} levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma. | | |
| | Annual | 12 µg/m ³ | 15.0 µg/m ³ | | | |
| Visibility reducing particles | 8 Hour | Extinction coefficient of 0.23 per kilometer; visibility of ten miles or more (0.07 - 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. | | | | |
| Sulfates | 24 Hour | 25 µg/m ³ | — | (a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardio-pulmonary disease; (d) vegetation | The sulfate ion is a polyatomic anion with the empirical formula SO ₄ ²⁻ . Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are | Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of |

Table 3.2-4 (cont.): Description of Air Pollutants

| Air Pollutant | Averaging Time | California Standard | Federal Standard ^a | Most Relevant Effects from Pollutant Exposure | Properties | Sources |
|----------------------------------|-------------------------|---|-------------------------------|--|--|---|
| | | | | damage; (e) degradation of visibility; (f) property damage. | soluble in water. | gasoline and diesel fuel. |
| Lead ^b | 30-day | 1.5 µg/m ³ | — | Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs. | Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982. | Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering. |
| | Quarter | — | 1.5 µg/m ³ | | | |
| | Rolling 3-month average | — | 0.15 µg/m ³ | | | |
| Vinyl chloride ^b | 24 Hour | 0.01 ppm | — | Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers. | Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor. | Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites. |
| Hydrogen sulfide | 1 Hour | 0.03 ppm | — | High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema. | Hydrogen sulfide (H ₂ S) is a flammable, colorless, poisonous gas that smells like rotten eggs. | Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur-containing fuels (oil and coal). |
| Volatile organic compounds (VOC) | | There are no state or federal standards for VOCs because they are not | | Although health-based standards have not been established for VOCs, health effects can occur | Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding | Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. |

Table 3.2-4 (cont.): Description of Air Pollutants

| Air Pollutant | Averaging Time | California Standard | Federal Standard ^a | Most Relevant Effects from Pollutant Exposure | Properties | Sources |
|---------------------------------|----------------|---|-------------------------------|---|--|---|
| | | classified as criteria pollutants. | | from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants. | carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROG and VOCs, the two terms are often used interchangeably. | Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM ₁₀ and lower visibility. |
| Benzene | | There are no ambient air quality standards for benzene. | | Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, loss of consciousness can occur. Long-term (chronic) occupational exposure of high doses has caused blood disorders, leukemia, and lymphatic cancer. | Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a “Group A” carcinogen. | Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. Benzene occurs naturally in gasoline at 1 to 2 percent by volume. The primary route of human exposure is through inhalation. |
| Diesel particulate matter (DPM) | | There are no ambient air quality standards for DPM. | | Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of | DPM is a source of PM _{2.5} —diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their | Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment. |

Table 3.2-4 (cont.): Description of Air Pollutants

| Air Pollutant | Averaging Time | California Standard | Federal Standard ^a | Most Relevant Effects from Pollutant Exposure | Properties | Sources |
|---|----------------|---------------------|-------------------------------|--|---|---------|
| | | | | DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure. | derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust. | |
| <p>Notes:</p> <p>ppm = parts per million (concentration) $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter Annual = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter</p> <p>^a Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3 Hour SO₂, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.</p> <p>^b The ARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.</p> <p>^c Effective April 12, 2010; the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb, or 188 $\mu\text{g}/\text{m}^3$</p> <p>^d To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.</p> <p>Source of effects: South Coast Air Quality Management District, 2007; California Environmental Protection Agency, 2002; California Air Resources Board, 2009; U.S. Environmental Protection Agency, 2010; U.S. Environmental Protection Agency, 2000; National Toxicology Program, 2011a.</p> <p>Source of standards: California Air Resources Board, 2010.</p> <p>Source of properties and sources: U.S. Environmental Protection Agency, 2009; U.S. Environmental Protection Agency, 2003; U.S. Environmental Protection Agency, 2011; U.S. Environmental Protection Agency, 2009; National Toxicology Program, 2011.</p> | | | | | | |

Asbestos

Asbestos is listed as a toxic air contaminant by ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in surface deposits of several types of rock formations. Naturally occurring asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Crushing or breaking these rocks, through construction or other means, can release asbestoform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs).

The nearest locations of naturally occurring asbestos near the project site are approximately 10 miles to the east and to the west of the project site. Project construction sometimes requires the demolition of existing buildings where construction occurs. Buildings often include materials containing asbestos; this project involves the demolition of existing structures.

State of California

ARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling adopts new section 2485 within Chapter 10, Article 1, Division 3, title 13 in the California Code of Regulations. The measure limits the idling of diesel vehicles to reduce emissions of toxics and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

ARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to "neutral" or "park." Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.

ARB Regulation for In-Use Off-Road Diesel Vehicles. On July 26, 2007, the ARB adopted a regulation to reduce diesel particulate matter and NO_x emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and

industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The ARB is enforcing that part of the rule with fines up to \$10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_x emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

Statewide Truck and Bus Rule. On December 12, 2008, the ARB approved a new regulation to significantly reduce emissions from existing on-road diesel vehicles operating in California. The regulation requires affected trucks and buses to meet performance requirements between 2011 and 2023. By January 1, 2023, all vehicles must have a 2010 model year engine or equivalent. The regulation applies to all on-road heavy-duty diesel-fueled vehicles with a gross vehicle weight rating greater than 14,000 pounds, agricultural yard trucks with off-road certified engines, and certain diesel fueled shuttle vehicles of any gross vehicle weight rating. Out-of-state trucks and buses that operate in California are also subject to the regulation.

Bay Area Air Quality Management District

The agency for air pollution control for the Air Basin is the Bay Area Air Quality Management District (BAAQMD). The BAAQMD is responsible for controlling emissions primarily from stationary sources and maintains air quality monitoring stations throughout the Air Basin. The District, in coordination with Metropolitan Transportation Commission and the Association of Bay Area Governments, is also responsible for developing, updating, and implementing the Bay Area Clean Air Plan for the Air Basin. A clean air plan is prepared and implemented by an air pollution district for a county or region designated as nonattainment of the national and/or state ambient air quality standards. The clean air plan, once submitted to and approved by the ARB, becomes an integral part of the State Implementation Plan. The term nonattainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded.

Current Air Quality Plans

A State Implementation Plan is a federal requirement; each state prepares one to describe existing air quality conditions and measures that will be followed to attain and maintain the national ambient air quality standards. In addition in California, state ozone standards have planning requirements. However, state PM₁₀ standards have no attainment planning requirements, but air districts must demonstrate that all measures feasible for the area have been adopted.

Ozone Plans

Because the Air Basin is nonattainment for the federal and state ozone standards, the District prepared an Ozone Attainment Demonstration Plan to satisfy the federal 1-hour ozone planning requirement and a Clean Air Plan to satisfy the state 1-hour ozone planning requirement. The EPA revoked the 1-

hour ozone standard and adopted an 8-hour ozone standard. The District will address the new federal 8-hour ozone planning requirements once they are established.

On September 15, 2010, the BAAQMD adopted the final Bay Area 2010 Clean Air Plan, and certified its Final Environmental Impact Report. The 2010 Clean Air Plan was prepared by the BAAQMD in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments. The 2010 Clean Air Plan builds from and incorporates components of the BAAQMD's 2005 Ozone Strategy, and identifies how the Air Basin will achieve compliance with the state 1-hour air quality standard for ozone as expeditiously as practicable and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The 2010 Clean Air Plan serves to:

- Update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement “all feasible measures” to reduce ozone.
- Provide a control strategy to reduce ozone, particulate matter (PM), air toxics, and greenhouse gases in a single, integrated plan.
- Review progress in improving air quality in recent years.
- Establish emission control measures to be adopted or implemented in the 2010 to 2012 timeframe.

Particulate Matter Plans

The Air Basin is designated nonattainment for the state PM₁₀ and PM_{2.5} standards, but it is currently in attainment for the federal PM₁₀ standard. The EPA lowered the 24-hour PM_{2.5} standard from 65 micrograms per cubic meter (µg/m³) to 35 µg/m³ in 2006, and designated the Air Basin as nonattainment for the new PM_{2.5} standard effective December 14, 2009. The BAAQMD has up to 3 years to prepare and submit a PM_{2.5} attainment plan to the EPA. The State Implementation Plan for the new PM_{2.5} standard must be submitted to the EPA by December 14, 2012.

The BAAQMD Board adopted the Particulate Matter Implementation Schedule, in response to requirements from SB 656, on November 9, 2005.

Rules

The BAAQMD has adopted several rules that govern air pollutant emissions within the BAAQMD. These rules are summarized below.

New and Modified Source Review. All new stationary sources of air pollution within Bay Area are subject to applicable rules for new and modified sources set by the federal and state governments and the BAAQMD. Regulation (Reg.) 2, Rule 2: New Source Review outlines the process by which new and modified stationary sources are reviewed and permitted. Reg. 2, Rule 2 is applicable to all new sources and modification to sources, of state and federal criteria pollutants above the applicability

thresholds. The rule contains emission thresholds that, if exceeded, require the applicant to provide offsets. Stationary sources of air pollutants that are categorized as “major sources,” as defined by the rule, are subject to Title V federal permitting requirements and are considered federally enforceable and must comply with Reg. 2, Rule 8: Major Facility Review.

Rules Regulating Specific Pollutant Emission Sources. The BAAQMD has adopted over 100 rules regulating specific source types and specific pollutant emissions from sources. For example, Reg. 8, Rule 3: Architectural Coatings regulates emissions of organic gases emitted from architectural coatings; Reg. 9, Rule 6: Nitrogen Oxides Emissions from Natural Gas-Fired Water Heaters regulates nitrogen oxides; Reg. 6, Rule 3: Wood-burning Devices regulates particulate matter from wood burning; and Reg. 6, Rule 2: Commercial Cooking Equipment.

Toxic Air Contaminants/Hazardous Air Pollutants. Toxic air contaminants are chemicals that have the potential to cause adverse health effects, such as cancer, birth defects, and organ damage. Health effects of toxic air contaminants are further discussed below. The BAAQMD is responsible for implementing the Federal Toxics Rules – National Emissions Standards for Hazardous Air Pollutants Maximum Achievable Control Technology Standards regulating toxics. The BAAQMD also has responsibilities under the California Air Toxic Contaminant Act (Assembly Bill (AB) 1807), and the California Air Toxic “Hot Spot” Program (AB 2588), which regulate and monitor toxic air contaminant emissions. BAAQMD Reg. 2, Rule 5: New Source Review of Toxic Air Contaminants regulates the permitting of toxic sources of emissions.

The Bay Area Air Quality Management District regulates the demolition and renovation of buildings and structures that may contain asbestos, or milling and manufacturing of specific materials that are known to contain asbestos. The provisions that cover these operations are found in BAAQMD Regulation 11, Rule 2.

Asbestos Demolition/Renovation Program. Because asbestos has been used extensively in residential, commercial and industrial construction, BAAQMD Regulation 11-2-401.3 requires that for every renovation involving the removal of 100 square feet per lineal foot or greater of Regulated Asbestos Containing Material, and for every demolition (even when no asbestos is present), a notification must be made to the BAAQMD at least 10 working days (except in special circumstances) prior to commencement of demolition/renovation. When removing any Regulated Asbestos Containing Material, BAAQMD regulations must always be followed.

Local

Local government’s responsibility for air quality increased significantly with the passage of the California Clean Air Act and amendments to the federal Clean Air Act of 1990. Both pieces of legislation place new emphasis on reducing motor vehicle trips and vehicle miles traveled at the local level. Although the BAAQMD is required to address air quality standards by way of transportation control measures and indirect source programs in its air quality attainment plans, cities and counties,

through their Regional Transportation Planning Agencies, are responsible for much of the implementation. The Bay Area Metropolitan Transportation Commission is the Regional Transportation Planning Agency for the Bay Area.

Another important local government responsibility with a significant relationship to air quality is land use authority. State law places responsibility for land use planning in the hands of city and county governments. With this responsibility comes the authority to approve development projects. This authority is supported by police power and powers of incorporation. As part of their duties, cities and counties are required to prepare a “general plan.” The general plan is a comprehensive document that sets a community’s goals and policies for development over a long period (often 20 years) and designates in general terms where certain land uses will be allowed. The General Plan provides the opportunity to plan development in ways that supports alternative modes of travel like walking, bicycling, and transit. Land use policies and practices, including planning, zoning, and siting activities, can play a critical role in avoiding incompatible land uses and thus reduce localized air pollution exposure that can result in adverse health impacts, especially for sensitive individuals.

Recent state legislation added more local government requirements. AB 1358 (Ch. 357) requires a local government to include a plan for a balanced, multimodal transportation network in the circulation element of its general plan. AB 3005 (Ch. 692) requires local governments to establish lower traffic impact developer fees for specified, transit-oriented housing developments unless the local government makes a specific finding.

City of Milpitas

General Plan

The General Plan establishes the following principles and policies associated with air quality that are relevant to the proposed project:

- **Principle 3.c-G-1:** Promote measures that increase transit use and lead to improved utilization of the existing transportation system.
- **Principle 3.d-G-2:** Provide adequate bicycle parking and end-of-trip support facilities for bicyclists at centers of public and private activity.
- **Principle 3.d-G-3:** Promote intermodal commuting options.
- **Principle 3.d-G-4:** Encourage a mode shift to non-motorized transportation by expanding current pedestrian and bicycle facilities.
- **Policy 3.d-I-3:** View all public capital improvement projects as opportunities to enhance the bicycle and pedestrian systems, and incorporate bicycle and pedestrian facilities into the design of such projects wherever feasible.
- **Policy 3.d-I-9:** Require developers to make new projects as bicycle and pedestrian “friendly” as feasible, especially through facilitating pedestrian and bicycle movements within sites and between surrounding activity centers.

- **Policy 3.d-I-10:** Encourage developer contributions toward pedestrian and bicycle capital improvement projects and end-of-trip support facilities.
- **Policy 3.d-I-13:** Where appropriate, install bicycle lockers and/or racks at public parks, civic buildings and other community facilities.
- **Policy 3.d-I-14:** Include evaluation of bicycle facility needs in all planning applications for new developments and major remodeling or improvement projects.
- **Policy 3.d-I-15:** Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc.

3.2.4 - Climate Change Setting

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. The Intergovernmental Panel on Climate Change predicted that global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios.

In California, climate change may result in consequences such as the following:

- A reduction in the quality and supply of water from the Sierra snowpack. If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- Increased risk of large wildfires. If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant “fuel” available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.

- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- A rise in sea levels resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California's coast have risen about seven inches. If heat-trapping emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- An increase temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- A decrease in the health and productivity of California's forests. In forests, climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. Common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas is a measure of how much a given mass of a greenhouse gas is estimated to contribute to global warming. To describe how much global warming a given type and amount of greenhouse gas may cause, a metric called the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions, since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. For example, methane's warming potential of 21 indicates that methane has a 21 times greater warming affect than carbon dioxide on a molecule

per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential.

Greenhouse gases as defined by AB 32 include the following gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Select greenhouse gases are summarized in Table 3.2-5.

Table 3.2-5: Description of Greenhouse Gases

| Greenhouse Gas | Description and Physical Properties | Sources |
|---------------------|---|---|
| Nitrous oxide | Nitrous oxide is also known as laughing gas and is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310. | Microbial processes in soil and water, fuel combustion, and industrial processes. |
| Methane | Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21. | Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, decay of organic matter, and cattle. |
| Carbon dioxide | Carbon dioxide (CO ₂) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960. | Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. |
| Chlorofluorocarbons | These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100. | Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. |
| Hydrofluorocarbons | Hydrofluorocarbons are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700. | Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants. |
| Perfluorocarbons | Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200. | Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing. |

Table 3.2-5 (cont.): Description of Greenhouse Gases

| Greenhouse Gas | Description and Physical Properties | Sources |
|---|---|---|
| Sulfur hexafluoride | Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900. | This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. |
| Sources: Compiled from a variety of sources, primarily Intergovernmental Panel on Climate Change 2007 and Intergovernmental Panel on Climate Change 2007. | | |

Other greenhouse gases include water vapor, ozone, and aerosols. Water vapor is an important component of our climate system and is not regulated. Ozone and aerosols are short-lived greenhouse gases; global warming potentials for short-lived greenhouse gases are not defined by the IPCC. Aerosols can remain suspended in the atmosphere for about a week and can warm the atmosphere by absorbing heat and cool the atmosphere by reflecting light. Black carbon is a type of aerosol that can also cause warming from deposition on snow.

Although there could be health effects resulting from changes in the climate and the consequences that can bring about, inhalation of greenhouse gases at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in criteria pollutant analyses. At very high indoor concentrations (not at levels existing outside), carbon dioxide, methane, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen.

Emissions Inventories

Emissions worldwide were approximately 49,000 million metric tons of carbon dioxide equivalents (MMTCO₂e) in 2004.

3.2.5 - Greenhouse Gas Regulatory Environment

International

Climate change is a global issue; therefore, many countries around the world have made an effort to reduce greenhouse gases.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations. On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the

Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. A particularly notable result of the United Nations Framework Convention on Climate Change efforts is a treaty known as the Kyoto Protocol, which went into effect on February 16, 2005. When countries sign the Kyoto Protocol, they demonstrate their commitment to reduce their emissions of greenhouse gases or engage in emissions trading. More than 170 countries are currently participating in the Kyoto Protocol. Industrialized countries are required to reduce their greenhouse gas emissions by an average of 5 percent below their 1990 levels by 2012. In 1998, United States Vice President Al Gore symbolically signed the Protocol; however, in order for the Kyoto Protocol to be formally ratified, the United States Congress must approve it. Congress did not do this during the Clinton Administration. Former President George W. Bush did not submit the Protocol to Senate to be ratified based on the exemption granted to China. President Barack Obama has not taken action regarding the Kyoto Protocol because it is about to end.

National

Clean Vehicles. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court held that petitioners have a standing to challenge the EPA and that the EPA has statutory authority to regulate greenhouse gases emissions from new motor vehicles.

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The second phase of the national program

would involve proposing new fuel economy and greenhouse gas standards for model years 2017 – 2025 by September 1, 2011.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Mandatory Reporting of Greenhouse Gases. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory greenhouse gas reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. The rule requires reporting of greenhouse gas emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

Greenhouse Gas Endangerment. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under Section 202(a) of the Clean Air Act: 1) Current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations. 2) The combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

New Source Review. The EPA issued a final rule on May 13, 2010 that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule “tailors” the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the federal code of regulations, EPA states:

This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided

under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest greenhouse gas emitters—power plants, refineries, and cement production facilities.

California

Title 24. Although not originally intended to reduce greenhouse gases, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. All buildings for which an application for a building permit is submitted on or after January 1, 2011 must follow the 2008 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions. The next version of Title 24 is currently under development by the CEC with adoption expected in 2013.

Renewable Portfolio Standard (RPS). In 2002, SB 1078 required electric utilities to increase procurement of power generated by eligible renewable energy sources to 20 percent of total generation by 2017. In 2006, SB 107 accelerated the timetable to require 20 percent renewable energy by 2010. Then, in 2008, the Governor signed Executive Order S-14-08, which increased the required renewables content to 33 percent by 2020. In September 2009, the Governor signed Executive Order S-21-09, which directed the Air Resources Board to adopt regulations consistent with the 33 percent renewable energy target in Executive Order S-14-08 by July 31, 2010. The 33 percent by 2020 goal was codified with Senate Bill X1-2, which was signed by Governor Edmund G. Brown, Jr., in April 2011. This new RPS preempts the ARB's 33 percent Renewable Electricity Standard and applies to all electricity retailers in the State, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new RPS goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.

California Green Building Standards. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which

went into effect on January 1, 2011. The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official.

The California Green Building Standards Code (code section in parentheses) requires:

- **Short-term bicycle parking.** If a commercial project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack (5.106.4.1).
- **Long-term bicycle parking.** For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space (5.106.4.2).
- **Designated parking.** Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.6.2 (5.106.5.2).
- **Recycling by occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling.
- **Construction waste.** A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and-75 percent for new homes and 80-percent for commercial projects. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.
- **Wastewater reduction.** Each building shall reduce the generation of wastewater by one of the following methods:
 1. The installation of water-conserving fixtures or
 2. Utilizing nonpotable water systems (5.303.4).
- **Water use savings.** 20-percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35 and 40-percent reductions.

- **Water meters.** Separate water meters for buildings in excess of 50,000 sq ft or buildings projected to consume more than 1,000 gallons per day.
- **Irrigation efficiency.** Moisture-sensing irrigation systems for larger landscaped areas.
- **Materials pollution control.** Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particle board.
- **Building commissioning.** Mandatory inspections of energy systems (i.e. heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 sq ft to ensure that all are working at their maximum capacity according to their design efficiencies.

Pavley Regulations. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the ARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009-2012) standards will result in about a 22-percent reduction compared with the 2002 fleet, and the mid-term (2013-2016) standards will result in about a 30-percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

Executive Order S-3-05. California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S 3-05, the following reduction targets for greenhouse gas emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target. The Climate Action Team's Report to the Governor in 2006 contains recommendations and strategies to help ensure the 2020 targets in Executive Order S-3-05 are met.

Low Carbon Fuel Standard - Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce

the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009. Enforcement of the Low Carbon Fuel Standard was blocked by a ruling of the United States District Court in Fresno on December 29, 2011. The ARB is planning to appeal the decision.

SB 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to adequately analyze the effects of greenhouse gases would not violate CEQA.

On April 13, 2009, the Office of Planning and Research submitted to the Secretary for Natural Resources its recommended amendments to the CEQA Guidelines for addressing greenhouse gas emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Following a 55-day public comment period and two public hearings, the Natural Resources Agency proposed revisions to the text of the proposed Guidelines amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of greenhouse gas emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, little guidance is offered on the crucial next step in this assessment process—how to determine whether the project’s estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project’s incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project’s cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on Energy Conservation. The sample environmental checklist in Appendix G was amended to include greenhouse gas questions.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 greenhouse gas emissions level of 427 MMTCO₂e on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO₂e. Emissions in 2020 in a “business as usual” scenario are estimated to be 596 MMTCO₂e.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO₂e by 2020, representing approximately 25 percent of the 2020 target.

The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 (California Air Resources Board 2008). The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between “capped” and “uncapped” strategies. Capped strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and-trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped

strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.

Executive Order S-13-08. Executive Order S-13-08 indicates that “climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California’s economy, to the health and welfare of its population and to its natural resources.” Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy was adopted, which is the “. . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

SB 1078, SB 107, and Executive Orders S-14-08 and S-21-09. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state’s load serving entities to meet a 33 percent renewable energy target by 2020. The ARB Board approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23.

SB 375. Passing the Senate on August 30, 2008, SB 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of greenhouse gas emissions, which emits over 40 percent of the total greenhouse gas emissions in California. SB 375 states, “Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32.” SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing greenhouse gas emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies. Concerning CEQA, SB 375, Section 21159.28 states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth-inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

Local

City of Milpitas

The General Plan establishes the following principles and policies associated with greenhouse gas emissions that are relevant to the proposed project:

- **Guiding Principle 4.d-G-6:** Promote conservation and efficiency in the use of water.
- **Guiding Principle 4.h-G-1:** Undertake efforts to reduce the generation of waste, increase recycling and slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989.
- **Implementing Policy 4.h-I-1:** Implement measures specified in the City’s Source Reduction and Recycling Element and the City’s Household Hazardous Waste Element.

See also the City of Milpitas regulatory environment General Plan policies for Air Quality earlier in this section.

3.2.6 - Methodology

The BAAQMD prepared California Environmental Quality Act Guidelines (Guidelines) to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the San Francisco Bay Area Air Basin. The Guidelines provides BAAQMD-recommended procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements. These revised Guidelines supersede the BAAQMD’s s previous CEQA guidance prepared in 1999.

The project’s air quality impacts were evaluated in accordance with the guidance set forth by the BAAQMD’s 2010 CEQA Air Quality Guidelines, while recognizing the current legal status of the newly adopted thresholds as detailed under the Thresholds of Significance discussion. Construction and operational emissions for the project were modeled using URBEMIS 2007. Greenhouse gas emissions were evaluated using URBEMIS, EMFAC2007, the BAAQMD’s Greenhouse Gas Model (BGM), and EPA emission factors. Emissions output for construction and operational emissions are provided in Appendix B.

3.2.7 - Thresholds of Significance

CEQA

Air Quality

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, air quality impacts resulting from the implementation of the proposed project would be considered significant if the project would:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

- c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?
- d) Expose sensitive receptors to substantial pollutant concentrations?
- e) Create objectionable odors affecting a substantial number of people?

Greenhouse Gas Emissions

The following greenhouse gas significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the project would:

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

BAAQMD Thresholds

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, BAAQMD recommends that its quantitative and qualitative air pollution thresholds be used to determine the significance of project emissions. The BAAQMD recently updated its CEQA Air Quality Guidelines, adopting the guidance document in June 2010. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. Each of the recommended thresholds, as well as screening criteria, is discussed in detail in its respective impact section below.

The BAAQMD updated their California Environmental Quality Act Air Quality Guidelines in 2010 to include both numeric and qualitative greenhouse gas thresholds and recommended assessment methodologies for project- and plan-level analyses. Prior BAAQMD Guidelines did not have thresholds of significance for either project- or plan-level greenhouse gas analyses. An Alameda Superior Court ruled in January 2012 in *California Building Industry Association v. Bay Area Air Quality Management District*, that the BAAQMD violated CEQA by adopting thresholds without appropriate CEQA review and documentation. The Court ruled that the new thresholds (including new thresholds for toxic air contaminants and PM_{2.5}) are considered a “project” under CEQA and, thus, the BAAQMD should have prepared the required CEQA review and documentation. As such, this ruling effectively nullified the BAAQMD’s adoption of the 2010 CEQA Guidelines. At the time of Draft EIR release, it was unclear if the ruling would be appealed or if the BAAQMD would proceed with preparing the appropriate CEQA documentation.

As a result of this ruling, the City of Milpitas has elected to use the thresholds set forth in the BAAQMD's 2010 CEQA Guidelines.

3.2.8 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Air Quality Plan Consistency

Impact AIR-1: **The project would not conflict with or obstruct implementation of the applicable air quality plan.**

Impact Analysis

The BAAQMD's 2010 Clean Air Plan (2010 CAP) is the regional air quality plan (AQP) for the Air Basin. The 2010 CAP accounts for projections of population growth provided by Association of Bay Area Governments and vehicle miles traveled provided by the Metropolitan Transportation Commission, and it identifies strategies to bring regional emissions into compliance with federal and State air quality standards. The BAAQMD's Guidance provides two criteria for determining if a plan-level project is consistent with the current AQP control measures. However, the BAAQMD does not provide a threshold of significance for project-level consistency analysis. Therefore, the following criteria will be used for determining a project's consistency with the AQP.

- Criterion 1: Does the project support the primary goals of the AQP?
- Criterion 2: Does the project include applicable control measures from the AQP?
- Criterion 3: Does the project disrupt or hinder implementation of any AQP control measures?

Impact Analysis

Criterion 1

The primary goals of the 2010 CAP are to:

- Attain air quality standards;
- Reduce population exposure to unhealthy air and protecting public health in the Air Basin; and
- Reduce greenhouse gas emissions and protect the climate.

The project supports the primary goals of the AQP by providing housing for Bay Area residents. In addition, the project is an infill project that increases residential densities and redevelops underutilized land. The project will provide residents with good pedestrian, bicycle, and transit connections.

As shown in Impacts AIR-2, AIR-3, AIR-4, and AIR-5, the project would not create a localized violation of state or federal air quality standards, significantly contribute to cumulative nonattainment pollutant violations, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people after incorporation of mitigation measures.

Further, Impacts AIR-6 and AIR-7 show that the project would not generate a significant amount of greenhouse gases and would not conflict with the applicable plans adopted for reducing the emission of greenhouse gases after inclusion of mitigation measures. The project is consistent with Criterion 1.

Criterion 2

The 2010 CAP contains 55 control measures aimed at reducing air pollution in the Bay Area. Along with the traditional stationary, area, mobile source, and transportation control measures, the 2010 CAP contains a number of new control measures designed to protect the climate and promote mixed use, compact development to reduce vehicle emissions and exposure to pollutants from stationary and mobile sources.

None of the 18 stationary source control measures are applicable to the project. In addition, none of the 10 mobile source measures or six land use and local impact measures applies to the project. Of the transportation control measures, Transportation Control Measure D (Support Focused Growth), measures D-1 through D-3, apply to the project.

The project would provide sidewalks and pedestrian connections to commercial development, government services, and transit along Main Street.

Relative to the Energy and Climate measures contained in the 2010 CAP, the project would be consistent with all applicable measures:

- **Energy Efficiency.** The project applicant would be required to conform to the energy efficiency requirements of the California Building Standards Code, also known as Title 24. Specifically, the project must implement the requirements of the most recent Building Energy Efficiency Standards, which is the current version of Title 24. The 2008 Building Efficiency Standards were adopted, in part, to meet an Executive order in the Green Building Initiative to improve the energy efficiency of buildings through aggressive standards.
- **Renewable Energy.** Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City. PG&E facilities include nuclear, natural gas, and hydroelectric facilities. PG&E's 2009 power mix consisted of nuclear generation (20.5 percent), large hydroelectric facilities (13.0 percent) and renewable resources (14.4 percent), such as wind, geothermal, biomass and small hydroelectric. The remaining portion came from natural gas (34.6 percent), coal (1.3 percent), unspecified sources (15.0 percent), and other fossil-based resources (1.2 percent).
- **Urban Heat Island Mitigation and Shade Tree Planting.** The project would replace existing industrial buildings and parking lots with residential development with increased landscaping compared to existing conditions.

In summary, the project would meet all of the Energy and Climate measures contained in the 2010 CAP through project design features and implementation of mitigation.

Criterion 3

The project will not preclude extension of a transit line or bike path, propose excessive parking beyond parking requirements, or otherwise create an impediment or disruption to implementation of any AQP control measures. Indeed, as shown above, the project incorporates several AQP control measures as project design features and mitigation measures.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure AIR-2.

Level of Significance After Mitigation

Less than significant impact.

Air Quality Standard Violation

| | |
|----------------------|--|
| Impact AIR-2: | The project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. |
|----------------------|--|

Impact Analysis

This impact is related to localized criteria pollutant impacts because criteria pollutants are the pollutants with ambient air quality standards. Potential localized impacts would be exceedances of state or federal standards for PM_{2.5}, PM₁₀, or CO. The BAAQMD provides recommended thresholds of significance for construction and operational-generated PM₁₀ and PM_{2.5}, and operational CO, as described below.

To assist in the analysis of impacts, the BAAQMD has identified screening criteria to provide lead agencies and project applicants with a conservative indication of whether the project could result in potentially significant impacts. The screening criteria serve as the first step in the significance determination. If all of the screening criteria are met by the project, then the lead agency would not need to perform a detailed impact assessment. In this case, the impacts would be considered to be less than significant and mitigation of project impacts would not be required. Otherwise, a more detailed assessment would be necessary and/or mitigation measures proposed to reduce impacts to less than significant levels, which are different from the screening criteria.

Construction Localized Dust Emissions

As stated in the BAAQMD's Guidance, PM₁₀ and PM_{2.5} from construction dust are evaluated separately from PM₁₀ and PM_{2.5} from exhaust. For construction dust, the BAAQMD recommends incorporation of best management practices (BMPs) to reduce localized dust impacts to less than significant. As BMPs for construction-generated dust are not addressed in the project's description, it

is assumed that the project would not incorporate them. Therefore, without application of BMPs, this impact is potentially significant and could possibly contribute to an air quality violation of PM₁₀ or PM_{2.5}. Incorporation of Mitigation Measure AIR-2 would reduce this impact to less than significant.

Construction Exhaust and Off-gassing

The BAAQMD has developed screening levels to help determine when additional analysis is necessary to determine significance for construction criteria pollutant emissions. The project includes demolition; therefore, it would not meet the BAAQMD screening criteria for construction activities, and analysis is required to determine if the project exceeds quantitative thresholds of significance for construction shown in Table 3.2-6.

Table 3.2-6: Thresholds of Significance for Construction-Related Criteria Air Pollutants and Precursors

| Pollutant/Precursor | Daily Average Emissions (lb/day) |
|--|----------------------------------|
| ROG | 54 |
| NO _x | 54 |
| PM ₁₀ (Exhaust) | 82 |
| PM _{2.5} (Exhaust) | 54 |
| Notes: * Applies to construction exhaust emissions only. CO = carbon monoxide; lb/day = pounds per day; NO _x = oxides of nitrogen PM _{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less PM ₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less ROG = reactive organic gases; SO ₂ = sulfur dioxide. Source: Bay Area Air Quality Management District, 2011. | |

Construction Analysis Assumptions

Demolition. Project construction will require the demolition of the existing industrial buildings and removal of parking lots, site preparation to ready the area for construction, and the construction of the residential structures. The existing buildings cover 21.5 percent of the 15.4 acre site or 3.31 acres. This equates to approximately 144,000 square feet of existing buildings that must be removed. The largest buildings on the site are two 2-story structures with an estimated 94,000-square-foot building footprint and a height of approximately 30 feet. Other structures are single-story industrial buildings approximately 20 feet in elevation and a combined building footprint of approximately 50,000 square feet. The total volume of all buildings to be demolished amount to 3.82 million cubic feet. The existing parking lot covers 59.6 percent of the 15.4-acre site—9.18 acres or approximately 400,000 square feet of pavement that will require removal during site grading. Assuming 1 foot of material is removed from the parking lot areas, an additional 400,000 cubic feet of material would be transported offsite.

Construction. The analysis assumed that the project would be constructed over a 2-year period, including demolition, mass grading, fine grading, building construction, and architectural coatings. Building construction is assumed to take place over 18 months. Actual construction timing is dependent on the housing market. The analysis used default modeling assumptions from the

URBEMIS 2007 model for the amount and type of equipment and hours of operation required for each step in construction. The analysis assumed construction would begin in 2013. The modeling results are located in Appendix B.

Construction Emissions Results

The results of the construction emissions analysis are presented in Table 3.2-7. The project does not exceed any significance threshold for criteria pollutants emitted during construction.

Table 3.2-7: Construction Emissions (Unmitigated)

| Source | Emissions (lbs/day) | | | |
|----------------------------------|---------------------|-----------------|------------------|-------------------|
| | ROG | NO _x | PM ₁₀ | PM _{2.5} |
| Construction Emissions (2013) | 32.34 | 20.62 | 1.35 | 1.25 |
| BAAQMD Threshold of Significance | 54 | 54 | 82 | 54 |
| Significant Impact? | No | No | No | No |

Source: Michael Brandman Associates, 2012.

The largest source of emissions are ROG emissions that occur during the application of architectural coatings. The analysis assumed that coatings would be applied as individual units and buildings were completed during building construction. The next largest source is NO_x emissions from the operation of diesel construction emissions during grading operations. Construction emissions would not exceed any BAAQMD threshold amount for any criteria pollutant and would not contribute to an exceedance of the ambient air quality standards for criteria pollutants.

Operational Emissions

The BAAQMD has developed screening levels to help determine when additional analysis is necessary to determine significance for operational criteria pollutant emissions. The operational screening levels developed by BAAQMD represent the size of development by land use type at which the BAAQMD's operational emissions threshold of significance for ROG, NO_x, PM₁₀, and PM_{2.5} would not be exceeded. As shown in Table 3.2-8, the project is under the screening threshold. Therefore, a more detailed analysis is not required. Project air pollutant emissions during operation are less than significant. Project emissions during operation would not contribute to an exceedance of the ambient air quality standards for criteria air pollutants.

Table 3.2-8: Operational Criteria Air Pollutant Screening

| Land Use | BAAQMD Screening Threshold | Project Size | Project's Percent of Screening Threshold |
|---|----------------------------|--------------------|--|
| Single-Family Residential | 325 dwelling units | 98 dwelling units | 30 |
| Condo/Townhouse | 451 dwelling units | 122 dwelling units | 27 |
| Total Project Percent of Screening Threshold | | | 57 |

Source: Bay Area Air Quality Management District, 2011.

Operational Carbon Monoxide Hotspot

Localized high levels of carbon monoxide (CO hotspot) are associated with traffic congestion and idling or slow moving vehicles. A carbon monoxide (CO) hot spot is a localized concentration of CO that is above the state or federal 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections, where the concentrations would be the greatest.

Carbon monoxide (CO) “hot spot” thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecasted regional traffic do not exceed state or federal standards for CO at any traffic intersection impacted by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project-generated CO concentrations cause a localized violation of the state CO 1-hour standard of 20 parts per million (ppm), state CO 8-hour standard of 9 ppm, federal CO 1-hour standard of 35 ppm, or federal CO 8-hour standard of 9 ppm.

The BAAQMD CEQA Guidelines includes screening criteria that provide substantial evidence that the project would not result in an exceedance of state and federal CO standards. The proposed project would result in a less than significant impact to localized CO concentrations if the following screening criteria are met:

1. The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The project is expected to generate more than 100 peak-hour trips; therefore, the traffic analysis was conducted in accordance with the requirements of the Valley Transportation Authority (VTA), the administering agency for the Congestion Management Program (CMP) of Santa Clara County. The traffic study found that based on CMP criteria, no significant impacts to freeway segments would occur. In addition, the project will participate in the Midtown Specific Plan Traffic Impact Fee as well as the Calaveras Boulevard Widening Traffic Impact Fee. Therefore, the project is consistent with Criterion 1.

The project is not in an area where vertical and/or horizontal mixing is substantially limited, so it must be compared with Criterion 2, which requires that the project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. The traffic study indicates that the highest volume roadway segment impacted by the project is Calaveras Boulevard from Interstate 880 to Abbot Avenue, with a traffic volume of 3,861 trips per hour during the 2030 PM peak hour. This is substantially less than the Criterion 2 volume. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO, and they would result in a less than significant impact.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM AIR-2 During construction activities, the following air pollution control measures shall be implemented:

- 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 offsite 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 and surfaces shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks shall be paved as soon as possible.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City of Milpitas regarding dust complaints. This person shall respond and take corrective action within 48 hours of a complaint or issue notification. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Level of Significance After Mitigation

Less than significant impact.

Net Increase in Non-Attainment Pollutant

Impact AIR-3: **The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).**

Impact Analysis

The non-attainment pollutants of concern for this impact are ozone, PM₁₀ and PM_{2.5}. Ozone is not emitted directly into the air, but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, ROG and NO_x, react in the atmosphere in the presence of sunlight to form ozone. The BAAQMD does not have a recommended ozone threshold, but it does have regional thresholds of significance for project-emitted NO_x and ROG. As discussed in Impact AIR-2, the BAAQMD recommends screening criteria for construction and operational ozone precursors, and exhaust PM₁₀ and PM_{2.5}.

The BAAQMD quantitative project thresholds for criteria pollutants are amounts determined by the BAAQMD to be cumulatively significant impact levels. Projects exceeding the thresholds are considered either a cumulatively considerable contribution to an existing adverse condition or a level of impact where its contribution, in conjunction with other projects, is considered cumulatively significant. By its very nature, air pollution is largely a cumulative impact. In the case of regional emissions (e.g. ozone precursors), no single project by itself is sufficient in size result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The threshold amounts are based on the trigger levels for the federal New Source Review Program and BAAQMD's Regulation 2, Rule 2 for new or modified sources.

Construction Emissions

Impact AIR-2 found that the project's construction activities would not exceed the BAAQMD's ROG, NO_x, exhaust PM₁₀, or exhaust PM_{2.5} thresholds. Therefore, the project's construction-generated exhaust PM₁₀, PM_{2.5}, and ozone precursors would be less than significant with the implementation of Mitigation Measure AIR-2.

Operational Emissions

Impact AIR-2 shows the project's operations would not exceed the BAAQMD's screening criteria for additional analysis. Therefore, the project would not result in a cumulatively considerable net increase for exhaust PM₁₀, PM_{2.5}, or ozone precursors.

This project redevelops a site developed with approximately 144,000 square feet of industrial uses, which constitutes the baseline for the air quality analysis. The change in the environment resulting from the project is the difference between the current baseline and the new uses proposed for the site. The results of the analysis are presented in Table 3.2-9.

Table 3.2-9: Net Emission Increase

| Source | Emissions (tons/year) | | | |
|--|-----------------------|-----------------|------------------|-------------------|
| | ROG | NO _x | PM ₁₀ | PM _{2.5} |
| Existing Emissions (2014) | 1.13 | 1.28 | 2.59 | 0.49 |
| Project Emissions (2014) | 1.80 | 2.05 | 4.87 | 1.50 |
| Net Increase | 0.67 | 0.77 | 2.28 | 1.01 |
| Source: Michael Brandman Associates, 2012. | | | | |

The analysis indicates that emissions will be slightly higher compared to existing conditions; however, the project's contribution to improvement of jobs to housing balance in the region is not accounted for in the analysis. The BAAQMD 2010 CAP growth forecasts for mobile source emissions is based on travel forecasts developed for the Regional Transportation Plan prepared by the Metropolitan Transportation Commission (MTC) using land use forecasts developed by the Association of Bay Area Governments (ABAG). The ABAG forecast assumes growth in residential development that will help balance jobs and housing in the region and that targets growth in existing communities and near transit.

The MTC prepared an alternative forecast that reflects considerable shifts in regional growth to existing employment and housing centers, areas projected to have either household or employment growth, and areas with existing or planned transit. The alternative scenario also assumes fewer in-commuters from neighboring regions by accommodating approximately 37,000 more households within the Bay Area. The 2035 Regional Transportation Plan Travel Forecast Data Summary projects a decrease in in-commute (total employment less employed residents) in Santa Clara County from 122,780 in 2006 to 39,226 in 2035. The project increases the amount of land designated for residential development providing a share of the additional residential development needed to reduce the net in-commute. This improves housing opportunities in the Bay Area and reduces vehicle miles traveled and mobile source emissions. Therefore, the change in general plan designation provides a positive contribution to a major goal of the Regional Transportation Plan and so would not result in a conflict with the CAP.

The project would not exceed BAAQMD quantitative thresholds for cumulative contribution, and it furthers regional jobs housing balance goals; therefore, the project would not result in a significant cumulative impact.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Sensitive Receptors

Impact AIR-4: **The project would not expose sensitive receptors to substantial pollutant concentrations.**

Impact Analysis

This discussion addresses whether the project would expose sensitive receptors to substantial pollutant concentrations of carbon monoxide, asbestos, diesel particulate matter, or other toxic air contaminants (TACs) of concern. A health risk is the probability that exposure to a given TAC under a given set of conditions will result in an adverse health effect. The health risk is affected by several factors, such as the amount, toxicity, and concentration of the contaminant; meteorological conditions; distance from the emission sources to people; the distance between the emission sources; the age, health, and lifestyle of the people living or working at a location; and the length of exposure to the TAC.

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. Sensitive receptors are locations where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. The nearest existing sensitive receptors in the project vicinity are the single-family residential uses along Hammond Way, immediately adjacent to the southern boundary of the project site.

Carbon Monoxide

The screening and analysis for the project's potential to contribute to a localized exceedance of state or federal CO standards is contained in Impact AIR-2. As shown above, the project would not significantly contribute to a local violation of the CO standards. Therefore, the project would not significantly contribute to exposure of sensitive receptors to unacceptable levels of CO.

Asbestos

Asbestos is a fibrous mineral which is both naturally occurring in ultramafic rock (a rock type commonly found in California), and used as a processed component of building materials. Because asbestos has been proven to cause a number of disabling and fatal diseases, such as asbestosis and lung cancer, it is strictly regulated, either because of its natural widespread occurrence or in its use as a building material. The two potential sources of asbestos exposure for the project are the demolition of the existing structure and earth-moving activities.

Naturally Occurring Asbestos

Construction in areas of rock formations that contain naturally occurring asbestos could release asbestos into the air and pose a health hazard.

The Governor’s Office of Planning and Research published a memorandum on August 1, 2007 entitled Addressing Naturally Occurring Asbestos in CEQA Documents. The memorandum indicates that the CEQA process provides an opportunity for Lead Agencies to identify whether serpentinite or ultramafic rocks will be disturbed by the proposed project and to investigate ways to avoid, control, or otherwise mitigate the impacts of naturally occurring asbestos.

The Department of Conservation, Division of Mines and Geology published a guide entitled A General Location Guide For Ultramafic Rocks In California - Areas More Likely To Contain Naturally Occurring Asbestos, dated August 2000, for generally identifying areas that are likely to contain naturally occurring asbestos. The screening criterion for determining if a project has the potential to disturb naturally occurring asbestos is to identify if the project location is in an area likely to contain such substances.

A review of a map containing areas more likely to have rock formations containing naturally occurring asbestos in California indicates that the project site is not in an area that is likely to contain naturally occurring asbestos. The nearest location of naturally occurring asbestos is approximately 10 miles northeast of the project site near the Calaveras Reservoir. Therefore, it can be reasonably concluded that naturally occurring asbestos is not present on the project site and nearby sensitive receptors would not be exposed to these substances. Impacts would be less than significant.

Asbestos During Demolition Activities

Structures to be demolished sometimes contains asbestos-containing materials. Demolition of existing buildings and structures would be subject to BAAQMD Regulation 11, Rule 2 (Asbestos Demolition, Renovation, and Manufacturing). BAAQMD Regulation 11, Rule 2 is intended to limit asbestos emissions from demolition or renovation of structure and the associated disturbance of asbestos-containing waste material generated or handled during these activities. The rule addresses the national emissions standards for asbestos along with some additional requirements. The rule requires the Lead Agency and its contractors to notify BAAQMD of any regulated renovation or demolition activity. This notification includes a description of structures and methods utilized to determine whether asbestos-containing materials are potentially present. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity in accordance with BAAQMD Regulation 11, Rule 2, including specific requirements for surveying, notification, removal, and disposal of asbestos-containing materials. Therefore, projects that comply with BAAQMD Regulation 11, Rule 2 would ensure that asbestos-containing materials would be removed and disposed of appropriately and safely. By complying with BAAQMD Regulation 11, Rule 2, thereby minimizing the release of airborne asbestos emissions, demolition activity would not result in a significant impact to air quality.

Toxic Air Contaminants

The proposed project consists of the development of residential uses on the project site. Land use activities that are sources of TACs typically consist of commercial and industrial facilities (e.g.,

refineries, distribution centers, power plants, wastewater treatment plants, etc.). Residential uses are not sources of TACs. Therefore, the proposed project would not expose surrounding sensitive receptors to TACs. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Odor Impacts

Impact AIR-5: The project would not create objectionable odors affecting a substantial number of people or expose people to objectionable odors from existing odor sources.

Impact Analysis

While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the BAAQMD. Any project with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact.

Threshold of Significance

The BAAQMD’s CEQA Guidelines establish a two-step odor impact screening process. First, it should be determined if the project would result in a sensitive receptor and odor source being located within the screening distances provided by the CEQA Guidelines. Land uses listed as sources of odor include but are not exclusive to wastewater treatment plants, asphalt batch plants, rendering plants, and coffee roasters. If a project would result in an odor source and a receptor being located closer than the screening level distances, a detailed analysis should be conducted to determine if the project may generate a substantial odor impact.

Second, if the project would result in an odor source and receptors being located closer than the screening level distances indicated in the BAAQMD’s CEQA Guidelines, a more detailed analysis should be conducted. The analysis would involve contacting the BAAQMD’s Enforcement Division for information regarding odor complaints. For a project locating near an existing source of odors, the project should be identified as having a significant odor impact if it is proposed for a site that is closer to an existing odor source than any location where there have been:

- More than one confirmed complaint per year averaged over a three-year period, or
- Three unconfirmed complaints per year averaged over a three-year period.

The BAAQMD's Guidelines recommend that odor complaints be mapped in relation to the odor source to establish a general boundary of any existing impacts, and the location of the proposed project should be identified. In assessing potential odor impacts, consideration also should be given to local meteorological conditions, particularly the intensity and direction of prevailing winds.

Background Information

Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of interacting factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the population, typically presented as the mean (or 50 percent of the population) but sometimes indicated as 100 percent or 10 percent. The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality by x percent (usually 50 percent) of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration.

Project Impacts

Two circumstances have the potential to cause odor impacts:

- A source of odors is proposed to be located near existing or planned receptors.
- A receptor land use is proposed near an existing or planned source of odor.

Odors from Project

Residential projects are not considered a potential odor source because they typically do not emit objectionable odors. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and would not result in a level that would induce a negative response.

This potential impact is less than significant.

Odors from Surrounding Uses

Several land uses within the BAAQMD distance screening criteria for odor are located near the project site. The City of Milpitas prepared an Odor Control Action Plan in June 2008 to address odor issues from these facilities. The plan calls for the ongoing monitoring of odors and provides guidance for responding to excessive odor complaints exceeding baseline benchmarks established during the period of October 2003 to June 2008. The objective is to ensure that odor generators continue to maintain their best management practices and controls to keep odor incidents as low as practicable.

The San Jose/Santa Clara Water Pollution Control Plant is located 2.0 miles northwest of the proposed project at 700 Los Esteros Road in the City of San Jose. Evaporation ponds associated with the plant are located approximately 2.0 miles northwest of the project site. The plant treats sewage from Milpitas, San Jose, Santa Clara, and other Santa Clara County communities. Odors are generated through the sewage treatment and solids handling processes. The treatment process first separates solids and liquids. Solids are treated by anaerobic digestion for about 30 days, stored in open air lagoons for 3 to 4 years, and then air-dried in open drying beds. Finally, the solids are hauled to the adjacent Newby Island landfill for use as alternative daily cover. Odor controls include the use of chemicals such as chlorine, hydrogen peroxide, ferric chloride, and odor-masking agents.

The plant has implemented a Best Management Practices plan, which includes extended solids stabilization enclosing process areas and ventilation through scrubbing or dispersion stacks, use of water trucks to control dust, completion of biosolids removal by each afternoon, and use of mobile misting neutralizing chemicals, among other measures. An onsite weather station provides wind speed and direction data, which assists in making operational decisions. The plant implemented several changes to its practices to control generation of odors from the sludge drying and hauling operations, including:

- Increased monitoring of meteorological conditions at the facility and use of meteorological data that affect odor generating operations and, hence, minimize potential impacts of odor beyond the site boundary.
- More attention paid by plant personnel to hauling dried sludge during periods of the year and under meteorological conditions that were not conducive to odor dispersion and to dispersion over densely populated areas.

The Zanker Road Landfill/Compost Facility is located at 675 Los Esteros Road in the City of San Jose, approximately 2.0 miles west of the project. The landfill began operations in 1985 and has an estimated life until 2023. It covers about 70 acres, with 46 acres of permitted disposal and 24 acres established as wetlands. Operations include processing and disposal of non-hazardous, non-compostable, inert mixed wastes, as well as recycling residuals from the onsite resource recovery activities. It handles about 300,000 tons of material each year. The landfill composts yard waste by conventional open-windrow composting. Windrows are watered and turned daily, and the compost

process is completed in 12 weeks. Approximately 100 tons of grass and leaves are composted on a daily basis.

The analysis also examined the potential impact from the Calpine Los Esteros Critical Energy Facility is located at 1515 Alviso-Milpitas Road in the City of San Jose, approximately 1.4 miles west of the project site. The facility is a natural gas power plant that began operations in 2003. According to the Preliminary Determination of Compliance for the plant issued by BAAQMD in 2004, the facility also is required to implement Best Available Control Technology pursuant to the New Source Review for emissions of CO, precursor organic compounds, sulfur dioxide, and PM₁₀. Regulation 7-302 prohibits the discharge of odorous substances that remain odorous beyond the facility property line after dilution with four parts odor-free air. Regulation 7-302 limits ammonia emissions to 5,000 ppm. Because the ammonia emissions from the facility will be limited by permit condition to 10 ppm, the facility is expected to comply with the requirements of Regulation 7-302.

Analysis

Table 3.2-10 presents a summary of the potential odor sources in the project area. As shown in the table, all of the facilities are outside of the screening distance. Therefore, they are considered sufficiently far enough away from the project site to not expose the project site to objectionable odors on a regular basis. Impacts would be less than significant.

Table 3.2-10: Odor Sources

| Odor Source | Type of Odor Source | BAAQMD 1999 CEQA Guidelines Screening Distance (miles) | Distance from Project (miles) | Analysis Required? |
|---|----------------------------|---|--------------------------------------|---------------------------|
| San Jose/Santa Clara Water Pollution Control Plant | Wastewater treatment plant | 1 | 2.0 | No |
| Zanker Road Landfill and Compost Facility | Composting facility | 1 | 2.0 | No |
| | Sanitary landfill | 1 | 2.0 | No |
| Los Esteros Critical Energy Facility | Natural gas power plant | Not listed | 1.4 | No |
| Newby Island Landfill | Sanitary Landfill | 1 | 2.0 | No |
| Sources: Michael Brandman Associates, 2012; Bay Area Air Quality Management District, 1999. | | | | |

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Greenhouse Gas Emissions

Impact AIR-6: The proposed project may emit significant amounts of greenhouse gases or conflict with an applicable plan, policy or regulation concerning greenhouse gas reduction.

Impact Analysis

This analysis is restricted to greenhouse gases identified by AB 32, which include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The project would generate a variety of greenhouse gases during construction and operation, including several defined by AB 32 such as carbon dioxide, methane, and nitrous oxide.

The project may also emit greenhouse gases that are not defined by AB 32. For example, the project may generate aerosols. Aerosols are short-lived particles, as they remain in the atmosphere for about 1 week. Black carbon is a component of aerosol. Studies have indicated that black carbon has a high global warming potential; however, the Intergovernmental Panel on Climate Change states that it has a low level of scientific certainty. Water vapor could be emitted from evaporated water used for landscaping, but this is not a significant impact because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks rather than emissions from project-related activities.

The project would emit nitrogen oxides and volatile organic compounds, which are ozone precursors. Ozone is a greenhouse gas; however, unlike the other greenhouse gases, ozone in the troposphere is relatively short-lived and can be reduced in the troposphere on a daily basis. Stratospheric ozone can be reduced through reactions with other pollutants.

Certain greenhouse gases defined by AB 32 would not be emitted by the project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project.

Construction

The BAAQMD has not adopted a significance threshold for construction emissions because these emissions are temporary. However, the BAAQMD recommends quantification of greenhouse gas emissions from construction activities for disclosure purposes. Greenhouse gas emissions from project construction equipment and worker vehicles are shown in Table 3.2-11. For detailed modeling results and assumptions used in estimating these emissions, please refer to the Appendix B.

Table 3.2-11: Construction Greenhouse Gas Emissions

| Source | Emissions (tons of carbon dioxide) | Emissions (MTCO ₂ e) |
|-----------------------------|---------------------------------------|---------------------------------|
| Demolition | 10.35 | 9.39 |
| Mass grading and excavation | 23.49 | 21.31 |
| Fine grading | 17.62 | 15.98 |

Table 3.2-11 (cont.): Construction Greenhouse Gas Emissions

| Source | Emissions (tons of carbon dioxide) | Emissions (MTCO ₂ e) |
|--|---------------------------------------|---------------------------------|
| Building construction | 1,068.69 | 969.52 |
| Architectural coating | 4.80 | 4.35 |
| Paving | 15.48 | 14.04 |
| Total | 1,140.43 | 1,034.60 |
| Note: MTCO ₂ e = metric tons of carbon dioxide equivalents converted to tons per year by multiplying by the global warming potential of the gas and by 0.9072. Source: Michael Brandman Associates, 2012. | | |

Operation

As with criteria pollutants, BAAQMD has developed screening levels to help determine when additional analysis is necessary to determine significance for greenhouse gas emissions. However, the project readily exceeds the screening levels provided by the BAAQMD. Therefore, additional analysis is required. The thresholds suggested by the BAAQMD for operational greenhouse gas generation are:

- Compliance with a qualified Greenhouse Gas Reduction Strategy, or
- 1,100 metric tons of CO₂ equivalent per year, or
- 4.6 metric tons of CO₂ equivalent per service population (employees plus residents).

Land use development projects include residential, commercial, industrial, and public land uses and facilities. If annual emissions of operational-related GHGs exceed these levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change.

For this project, operational emissions were compared with the 1,100 MTCO₂e quantitative significance threshold. A description of the emission sources assessed and the modeling assumptions are provided below.

Motor vehicles. Motor vehicle emissions refer to greenhouse gas emissions contained in the exhaust from the cars and trucks that would travel to and from the site. Emissions were estimated using URBEMIS and BGM. The trip generation rates for the project are from URBEMIS 2007 and are consistent with rates used in the traffic study.

Natural Gas. Natural gas emissions refer to the emissions that occur when natural gas is burned. Natural gas may be used for heating water, space heating, dryers, stoves, or other uses. Emissions were estimated using the default values in URBEMIS and BGM.

Hearth. The default values in the URBEMIS model assume some residential units will have wood burning devices. The analysis assumed that 100 percent of units will have natural gas fireplaces instead of wood stoves.

Indirect Electricity. Indirect electricity refers to the emissions generated by offsite power plants to supply electricity. Emissions were estimated using the default values in BGM.

Water Transport. There would be greenhouse gas emissions generated from the electricity required to transport and treat the water used. Emissions were estimated using default values in BGM.

Waste. There would be greenhouse gas emissions from the decomposing waste generated on the site. Emissions were estimated using default values from BGM.

Existing Emissions. There is existing industrial development on the project site. The emissions from those uses were estimated using URBEMIS and the BGM using default modeling assumptions.

Emissions. The operational emissions for the project are shown in Table 3.2-12. As shown in the table, total emissions are under the BAAQMD’s significance threshold.

Table 3.2-12: Project Operational Greenhouse Gases

| Source | Emissions (MTCO ₂ e per year) |
|--|--|
| Transportation | 1,560.74 |
| Area source | 2.13 |
| Electricity | 370.77 |
| Natural gas | 323.09 |
| Water & wastewater | 32.56 |
| Solid waste | 233.04 |
| Subtotal Project Operational | 2,522.35 |
| Existing Site Emissions | 1,667.23 |
| Total (Net Increase Above Existing Emissions) | 855.12 |
| BAAQMD significance threshold | 1,100 |
| Significant impact? | No |
| Note: MTCO ₂ e = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, nitrous oxide, and/or hydrofluorocarbons). Source: Michael Brandman Associates, 2012. | |

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Greenhouse Gas Reduction Plans

Impact AIR-7: **The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.**

Impact Analysis

The City is in the process of developing a Climate Action Plan to reduce community greenhouse gas emissions. Pending adoption of the plan, this analysis consistency with California's plans to reduce greenhouse gases and existing policies in the City of Milpitas General Plan for the purpose of reducing greenhouse gas emissions.

Scoping Plan and AB 32

The BAAQMD states the following regarding its justification of the numerical threshold of 1,100 MTCO₂e per year.

Projects with greenhouse gas emissions in conformance with these thresholds would not be considered significant for purposes of CEQA. Although the emissions from such projects would add an incremental amount to the overall greenhouse gas emissions that cause global climate change impacts, emissions from projects consistent with these thresholds would not be a cumulatively considerable contribution under CEQA. Such projects would not be cumulatively considerable because they would be helping to solve the cumulative problem as a part of the AB 32 process.

California's response to the problem of global climate change is to reduce greenhouse gas emissions to 1990 levels by 2020 under AB 32 as a near-term measure and ultimately to 80 percent below 1990 levels by 2050 as the long-term solution to stabilizing greenhouse gas concentrations in the atmosphere at a level that will not cause unacceptable climate change impacts. To implement this solution, the Air Resources Board has adopted a Scoping Plan and budgeted emissions reductions that will be needed from all sectors of society in order to reach the interim 2020 target.

The land-use sector in the Bay Area needs to achieve aggregate emission reductions of approximately 1.6 MMT CO₂e per year from new projects between now and 2020 to achieve this goal, and each individual new project will need to achieve its own respective portion of this amount in order for the Bay Area land use sector as a whole to achieve its allocated emissions target. Building all of the new projects expected in the Bay Area between now and 2020 in accordance with the thresholds that BAAQMD staff are proposing will achieve the overall appropriate share for the land use sector, and building each individual project in accordance with the thresholds will achieve that individual project's respective portion of the emission reductions needed to implement the AB 32 solution. For these reasons, projects built in conformance with the thresholds will be part of the solution to the cumulative problem, and not part of the continuing problem. They will allow the Bay Area's land use sector to achieve the emission reductions necessary from that sector for California to implement its

solution to the cumulative problem of global climate change. As such, even though such projects will add an incremental amount of greenhouse gas emissions, their incremental contribution will be less than cumulatively considerable because they are helping to achieve the cumulative solution, not hindering it. Such projects will not be significant for purposes of CEQA (see CEQA Guidelines Section 15064(h)(1)).

As shown in Impact AIR-6, the project's emissions are less than the BAAQMD's significance threshold. Therefore, the project would be consistent with the goals of AB 32.

General Plan

The City of Milpitas General Plan has a variety of goals and policies that would reduce greenhouse gases by encouraging use of alternative transportation modes, conservation of water resources, and waste reduction, as identified below.

- **Principle 3.c-G-1:** Promote measures that increase transit use and lead to improved utilization of the existing transportation system.
- **Principle 3.d-G-2:** Provide adequate bicycle parking and end-of-trip support facilities for bicyclists at centers of public and private activity.
- **Principle 3.d-G-3:** Promote intermodal commuting options.
- **Principle 3.d-G-4:** Encourage a mode shift to non-motorized transportation by expanding current pedestrian and bicycle facilities.
- **Policy 3.d-I-3:** View all public capital improvement projects as opportunities to enhance the bicycle and pedestrian systems, and incorporate bicycle and pedestrian facilities into the design of such projects wherever feasible.
- **Policy 3.d-I-9:** Require developers to make new projects as bicycle and pedestrian “friendly” as feasible, especially through facilitating pedestrian and bicycle movements within sites and between surrounding activity centers.
- **Policy 3.d-I-10:** Encourage developer contributions toward pedestrian and bicycle capital improvement projects and end-of-trip support facilities.
- **Policy 3.d-I-13:** Where appropriate, install bicycle lockers and/or racks at public parks, civic buildings and other community facilities.
- **Policy 3.d-I-14:** Include evaluation of bicycle facility needs in all planning applications for new developments and major remodeling or improvement projects.
- **Policy 3.d-I-15:** Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc.
- **Guiding Principle 4.d-G-6:** Promote conservation and efficiency in the use of water.
- **Guiding Principle 4.h-G-1:** Undertake efforts to reduce the generation of waste, increase recycling and slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989.

- **Implementing Policy 4.h-I-1:** Implement measures specified in the City’s Source Reduction and Recycling Element and the City’s Household Hazardous Waste Element

The project will comply with City of Milpitas programs implementing these measures appropriate for residential development. In addition, the City will enforce Title 24 energy efficiency standards that support the goal of AB 32.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.3 - Biological Resources

3.3.1 - Introduction

This section describes the existing biological setting and potential effects from project implementation on the site and its surrounding area. This evaluation includes a review of potentially occurring special-status species, wildlife habitats, and vegetation communities. The results of this evaluation are based on a reconnaissance survey performed by Michael Brandman Associates (MBA), literature searches, and database queries. Supporting documentation is provided in Appendix C.

3.3.2 - Environmental Setting

Project Site Conditions

The 15.4-acre project site contains approximately 144,000 square feet of industrial buildings, the majority of which were developed within the last 15 years. Most of the project site is covered with impervious surfaces (the existing Preston Pipeline company and related industrial buildings). The proposed project would redevelop the project site with high-density residential uses. Mature ornamental trees and landscaping are located throughout the industrial complex.

Vegetation

The project site is developed and is landscaped with low-growing shrubs and mature ornamental trees located along the periphery of the warehouse buildings and access roads. The ornamental trees include some tall species (up to approximately 30 feet above ground level, while non-native ornamental shrubs are generally less than 2 feet in height. Ford Creek, which forms the eastern boundary of the project site, contains a number of hydrophytic grasses and forbs.

Wildlife

Based on the developed nature of a majority of the project site, there is no indication of wildlife species except for birds that are commonly associated with urbanized areas. Wildlife typically associated with developed commercial buildings, such as small rodents, would be expected to occur on the property. Ford Creek, which is daylighted for a brief segment adjacent to the project site and culverted to the north and south of the site, forms the eastern boundary of the site and may provide marginal aquatic habitat.

Special-Status Species

Special-status species are those animal and plant species that, in the judgment of the resource agencies, trustee agencies, and certain non-governmental organizations, warrant special consideration in the California Environmental Quality Act (CEQA) process. This includes the following:

- Officially designated “threatened,” “endangered,” or “candidate” species federally listed by the United States Fish and Wildlife Service (USFWS) and protected under the Federal Endangered Species Act.

- Officially designated “rare,” “threatened,” “endangered,” or “candidate” species state listed by the California Department of Fish and Game (CDFG) and protected under the California Endangered Species Act. CDFG also maintains a list of “Fully Protected” species as well as “California Species of Special Concern” that are also generally included as special-status species under CEQA.
- Species considered rare, threatened, or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as plant species identified on lists 1A, 1B, and 2 in the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California.
- Other species considered sensitive, such as birds protected under the Migratory Bird Treaty Act, which includes most native birds. A species may also be designated as special concern at the local level.

Special-Status Plant Species

The special-status plant species considered for review in this document are included in a table provided in Appendix C. This list was compiled based upon query results from the California Natural Diversity Database (CNDDDB) and the CNPS online inventory, as well as a list obtained from the USFWS. CNDDDB-recorded occurrences of special-status plant species within 5 miles of the project site are shown in Exhibit 3.3-1.

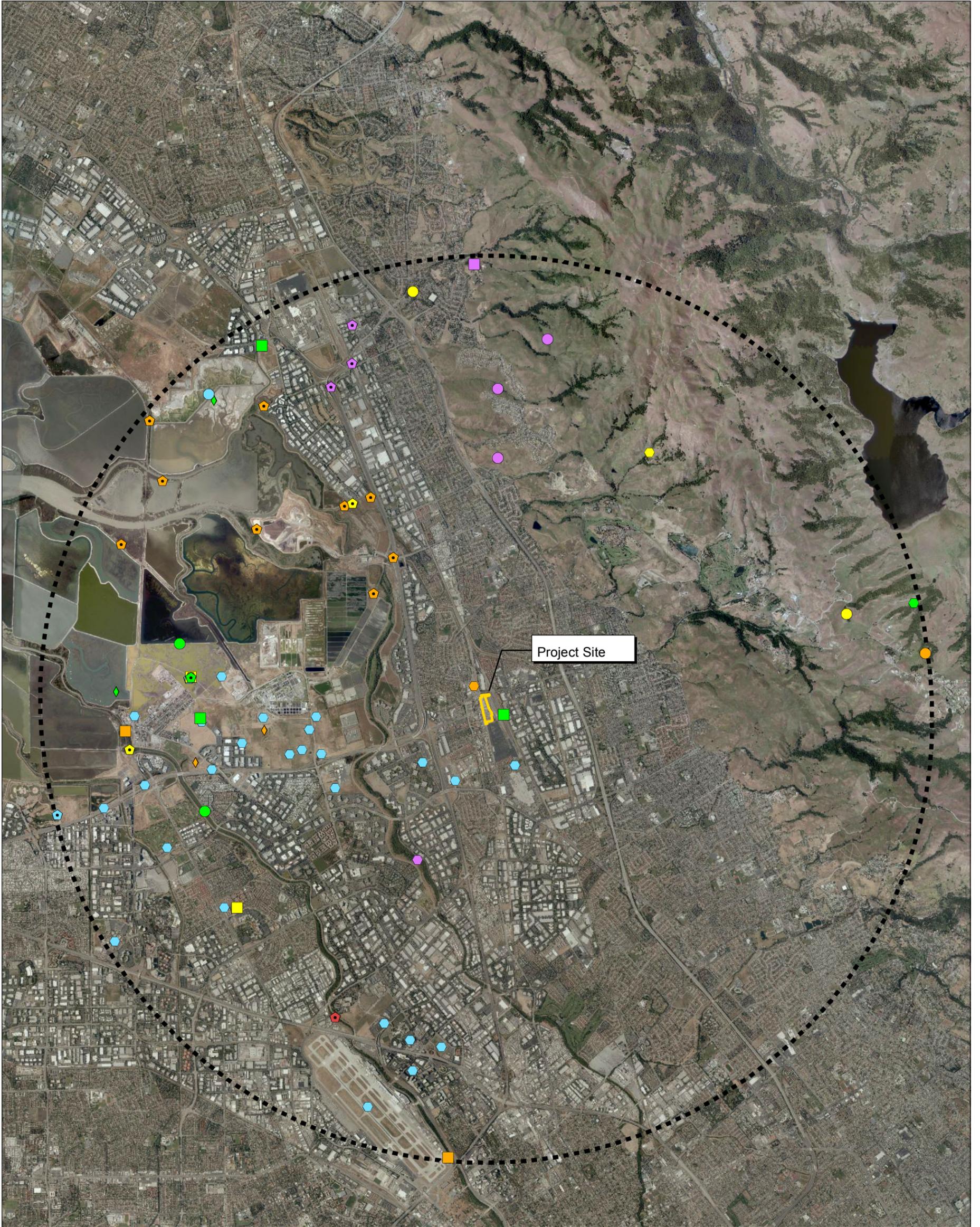
Several regionally occurring species were determined not to have potential to occur with the project site, either because the distribution of the species does not extend into the project site vicinity, or because the habitat or microsite conditions (e.g., serpentine soils, mesic sites) required by the species are not present. The project is in an area with identified occurrences of Congdon’s tarplant and alkali milk vetch; however, given the urbanized nature of the project site and the lack of presence of these species during MBA’s site visit, they are not anticipated to occur onsite.

Based upon the results of the species review, there are no special-status plant species with potential to occur within the project site.

Special-Status Wildlife Species

The special-status wildlife species considered for review in this document are included in a table provided in Appendix C. This list was compiled from the USFWS list and query results from the CNDDDB and California Wildlife Habitat Relationship System. The latter is a predictive model that lists species likely to occur in a given location under certain habitat conditions. It also predicts the suitability of those conditions for reproduction, cover, and feeding for each modeled species.

Information fed into the model for this project includes location (Santa Clara County), and habitat type (urban). The California Wildlife Habitat Relationship System does not include any information on plants, fish, invertebrates, or rare natural communities.



| Legend | | |
|--|---|---|
| Common Name - Scientific Name | | |
| ■ 5-Mile Buffer | ■ Hoover's button-celery - <i>Eryngium aristulatum</i> var. <i>hooveri</i> | ◆ saline clover - <i>Trifolium hydrophilum</i> |
| ● Alameda song sparrow - <i>Melospiza melodia pusillula</i> | ■ Point Reyes bird's-beak - <i>Chloropyron maritimum</i> ssp. <i>palustre</i> | ◆ salt-marsh harvest mouse - <i>Reithrodontomys raviventris</i> |
| ● Alameda whipsnake - <i>Masticophis lateralis euryxanthus</i> | ■ San Joaquin spearscale - <i>Atriplex joaquiniana</i> | ◆ salt-marsh wandering shrew - <i>Sorex vagrans halicoetes</i> |
| ● California red-legged frog - <i>Rana draytonii</i> | ● Yuma myotis - <i>Myotis yumanensis</i> | ◆ saltmarsh common yellowthroat - <i>Geothlypis trichas sinuosa</i> |
| ● California seablite - <i>Suaeda californica</i> | ● alkali milk-vetch - <i>Astragalus tener</i> var. <i>tener</i> | ◆ tricolored blackbird - <i>Agelaius tricolor</i> |
| ● California tiger salamander - <i>Ambystoma californiense</i> | ● burrowing owl - <i>Athene cunicularia</i> | ◆ western pond turtle - <i>Emys marmorata</i> |
| ■ Congdon's tarplant - <i>Centromadia parryi</i> ssp. <i>congdonii</i> | ● golden eagle - <i>Aquila chrysaetos</i> | ◆ western snowy plover - <i>Charadrius alexandrinus nivosus</i> |
| ■ Hall's bush-mallow - <i>Malacothamnus hallii</i> | ● great blue heron - <i>Ardea herodias</i> | ◆ white-tailed kite - <i>Elanus leucurus</i> |
| | ● mimic tryonia (=California brackishwater snail) - <i>Tryonia imitator</i> | |

Source: State of CA, NAIP 2010, CNDDDB Data March 2012.



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Exhibit 3.3-1
CNDDDB-Recorded Occurrences of
Special-Status Species Within
5 Miles of the Project Site

Several regionally occurring species were determined not to have potential to occur within the project site, either because the distribution of the species does not extend into the project site vicinity, or because the habitat or habitat elements (e.g., caves, tall snags) required by these species are not present.

Based upon the results of the species review, there are no special-status wildlife species with potential to occur within the project. Recorded occurrences of special-status wildlife species within 5 miles of the project site are shown in Exhibit 3.3-1.

Nesting Birds

The project site supports mature ornamental landscape trees that could potentially provide nesting habitat for birds adapted to urban settings. Nesting birds are protected by the Migratory Bird Treaty Act and the California Fish and Game Code (refer to the Regulatory Framework Section below).

Water Features

One water feature, Ford Creek, was identified during MBA's site visit of the project site. Although not located within the project boundaries, it is immediately adjacent to the eastern boundary of the project site. The portion of the creek adjacent to the project site is daylighted and culverted north and south of the project site.

3.3.3 - Regulatory Framework

Federal

Endangered Species Act

The Endangered Species Act of 1973 establishes a framework for protecting and facilitating the recovery of threatened and endangered populations of animal and plant species. Under the act, the Secretary of the Interior is required to list species of animals and plants that are both threatened and endangered, a task that is delegated to the USFWS and the National Marine Fisheries Service (NMFS). A species can become threatened or endangered as a result of the following factors:

- Present or threatened destruction
- Modification or curtailment of its habitat range
- Over-utilization for commercial recreation, scientific, or educational purposes
- Disease or predation
- Inadequacy of existing statutory mechanisms
- Other natural or man-made factors affecting its continued existence

Section 3 of the Endangered Species Act defines an endangered species as any species or subspecies of fish, wildlife, or plants "in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as any species or subspecies "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Designated endangered and threatened species, as listed through publication of a final rule in the Federal

Register, are fully protected from a “take” without an incidental take permit administered by the USFWS under Section 10 of the ESA. “Take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap capture, or collect, or to attempt to engage in any such conduct (50 Code of Federal Regulations [CFR] 17.3). The term “harm” in the definition of take means an action that actually kills or injures wildlife. Such action may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). The term “harass” in the definition of take means an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3). Proposed endangered or threatened species are those for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Section 7 of the act requires that federal agencies ensure that their actions are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its critical habitat. This obligation requires federal agencies to consult with the USFWS or the NMFS on any actions (issuing permits including Section 404 permits, issuing licenses, providing federal funding) that may affect listed species to ensure that reasonable and prudent measures will be undertaken to mitigate impacts on listed species. Consultation with USFWS or NMFS can be either formal or informal, depending on the likelihood of the action to adversely affect listed species or critical habitat. Once a formal consultation is initiated, USFWS or NMFS will issue a Biological Opinion (either a “jeopardy” or a “no jeopardy” opinion) indicating whether the proposed agency action will or will not jeopardize the continued existence of a listed species or result in the destruction or modification of its critical habitat. A permit cannot be issued for a project with a jeopardy opinion unless the project is redesigned to lessen impacts.

In the absence of any federal involvement, as in a privately funded project on private land with no federal permit, only Section 10(a) of the act can empower the USFWS or NMFS to authorize incidental take of a listed species provided a habitat conservation plan is developed. To qualify for a formal Section 10(a) permit, strict conditions must be met, including a lengthy procedure involving discussions with USFWS, NMFS, and local agencies; preparation of an habitat conservation plan; and a detailed Section 10(a) permit application.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 makes it unlawful to take (kill, harm, harass, etc.) any migratory bird listed in 50 CFR 10, including their nests, eggs, or products. The Migratory Bird Treaty Act protects more than 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species, and it was originally drafted to put an end to the commercial trade in birds and their feathers that, by the early years of the 20th century, had wreaked havoc on the populations of many native bird species. The Migratory Bird Treaty Act implements the United States’ commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for

the protection of a shared migratory bird resource. Each of the conventions protects selected species of birds that are common to both countries (i.e., they occur in both countries at some point during their annual life cycle). The act requires that the removal of any trees, shrubs, or any other potential nesting habitat be conducted outside the avian nesting season, which is generally between early February and late August.

State

California Endangered Species Act

Signed into law in 1984, the California Endangered Species Act declares that deserving plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. The act established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. Under State law, the California Fish and Game Commission may formally designate plant and animal species rare, threatened, or endangered by official listing. Listed species are generally given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

The California Endangered Species Act prohibits the take of any species that the California Fish and Game Commission determines to be an endangered species or a threatened species. The act defines a take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The CDFG enforces the act, which authorizes that take of a plant or wildlife species listed as endangered or threatened under the federal and state acts may occur pursuant to a federal incidental take permit issued in accordance with Section 10 of the federal Endangered Species Act, provided CDFG is notified and certifies that the incidental take statement or incidental take permit is consistent with California Endangered Species Act (Fish and Game Code Section 2080.1(a)).

The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project-caused losses of listed species populations and their essential habitats.

California Environmental Quality Act - Treatment of Listed Plant and Animal Species

Both the federal and state Endangered Species Acts protect only those species formally listed as threatened or endangered (or rare, in the case of the State list). CEQA Guidelines Section 15380, however, independently defines “endangered” species of plants, fish or wildlife as those whose survival and reproduction in the wild are in immediate jeopardy, and “rare” species as those which are in such low numbers that they could become endangered if their environment worsens. Therefore, a project will normally have a significant effect on the environment if it will substantially affect a rare or endangered species or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

California Fish and Game Code

Sections 3503, 3503.5, and 3800 of the California Fish and Game Code prohibit the “take, possession, or destruction of birds, their nests or eggs.” Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a take.

Local

City of Milpitas

General Plan

The City of Milpitas General Plan establishes the following principle and policy related to biological resources that are applicable to the proposed project:

- **Principle 4.b-G-2:** Preserve and protect populations and supporting habitat of special-status species within the Planning Area, including species that are state or federally listed as Rare, Threatened, or Endangered, all federal “candidate” species for listing and other species proposed for listing, and all California Species of Special Concern.
- **Policy 4.b-I-4:** Require a biological assessment of any project site where sensitive species are present, or where habitats that support known sensitive species are present.

Municipal Code

Milpitas Municipal Code Chapter 2 contains the Tree Maintenance and Protection Ordinance of the City of Milpitas. The ordinance requires that new development projects must receive a tree removal permit from the Public Works Department prior to removal and replacement. All trees that have a 37-inch or greater circumference of any trunk measured 4.5 feet from the ground and located on developed commercial or industrial property are protected. Street trees or other plantings that are required to be planted by a new development in accordance with plans and specifications approved by the City may be planted without a permit, provided, however, that such trees and plantings shall conform to City-approved plans and specifications and shall be planted under the supervision of the Public Works Department.

3.3.4 - Methodology

MBA evaluated the biological resource characteristics of the project site through a site reconnaissance and literature review. MBA reviewed the following information sources to identify special-status species with the potential to occur on the project site:

- The Milpitas, California USGS 7.5-minute topographic quadrangle
- Aerial photography of the project site
- A Natural Resource Conservation Service soils map of the project site
- CNDDDB records for the Milpitas, California 7.5-minute topographic quadrangle and the surrounding eight quadrangles

- California Wildlife Habitat Relationship System
- USFWS list of endangered and threatened species that may occur or be affected by the project, in the Milpitas, California quadrangle
- CNPS online Inventory of Rare and Endangered Vascular Plants of California
- The Western Bat Working Group Regional Bat Species Priority Matrix
- The Jepson Manual, Higher Plants of California

3.3.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, biological resources impacts resulting from the implementation of the proposed project would be considered significant if the project would:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites? (Refer to Section 7, Effects Found Not To Be Significant.)
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (Refer to Section 7, Effects Found Not To Be Significant.)

3.3.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Special-Status Species

Impact BIO-1: Development of the proposed project may adversely affect special-status species.

Impact Analysis

This impact assesses the potential for the proposed project to adversely impact special-status plant and wildlife species.

Special-Status Plant Species

As seen in Exhibit 3.3-1, the project is in an area with identified occurrences of Congdon's tarplant and alkali milk vetch. However, the project site is located in an urban, industrial condition and does not contain suitable habitat for either of these special-status plant species. Furthermore, neither species was observed during MBA's site visit. As such, the proposed project would not impact special-status plant species. Impacts to special-status plant species would be less than significant.

Special-Status Wildlife Species

As shown in Exhibit 3.3-1, the project site is not located within an area where special-status wildlife species have been recorded. However, the project site does contain mature ornamental trees that are suitable for use as nesting habitat for migratory birds protected under the Migratory Bird Treaty Act and the California Fish and Game Code. Construction activities that may result in nest abandonment or destruction would be considered significant under CEQA. Therefore, standard construction mitigation is proposed for nesting birds that would ensure that no occupied trees are removed until the birds have fledged. With implementation of this mitigation measure, impacts would be reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-1 If vegetation removal associated with development of the property is to occur during the nesting bird season (generally February 15 through August 31), a qualified biologist shall conduct a pre-construction survey for nesting birds to identify any potential nesting activity. The pre-construction surveys for nesting birds shall be conducted within 14 days prior to any construction-related activities (grading, ground clearing, etc.). If nesting birds are identified on the site, a 100-foot buffer shall be maintained around the nests; no construction-related activities shall be permitted within the 100-foot buffer. A qualified biologist shall monitor the nests, and construction activities may commence within the buffer area at the discretion and presence of the biological monitor. The pre-construction survey for nesting birds shall not be required if construction activities occur outside of the nesting bird season (September 1 through February 14).

Level of Significance After Mitigation

Less than significant impact.

Riparian Habitat

Impact BIO-2: Development of the proposed project may adversely affect riparian habitat or other sensitive natural communities.

Impact Analysis

The project site contains existing industrial land uses associated with the Preston Pipeline company. The only riparian habitat associated with the proposed project is Ford Creek, which borders the project site runs along the eastern edge of the project site. The proposed project would maintain Ford Creek as is, and no improvements are proposed within the creek itself; therefore, no impact to riparian habitat would occur.

Runoff associated with the construction of the proposed residential project may affect riparian habitat associated with the creek; however, implementation of the required NPDES permit and associated SWPPP would ensure that stormwater from the project site would not enter the drainage and that water quality measures would be implemented to render any impacts to the drainage bordering the project site to a level that is less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1a.

Level of Significance After Mitigation

Less than significant impact.

Federally Protected Wetlands

Impact BIO-3: The proposed project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act.

The project site is in an urban, built-up condition, with minimal ornamental landscaping provided in the parking area, along the main building’s front façade, and along Ford Creek. Ford Creek is a small, ephemeral drainage that is located along a portion of the project site’s eastern boundary. The drainage feature is contained in a culvert north and south of the project site and is not a federally protected wetland. No other potential wetland or jurisdictional feature is located within the project site. This condition precludes the possibility of the project causing adverse impacts to wetland or jurisdictional features. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Local Biological Ordinances and Policies

| | |
|----------------------|---|
| Impact BIO-4: | The proposed project may conflict with the City of Milpitas tree maintenance and protection ordinance. |
|----------------------|---|

Impact Analysis

This impact assesses the proposed project's consistency with the General Plan and Municipal Code requirements associated with protection of biological resources.

General Plan

Principle 4.b-G-2 requires the preservation and protection of special-status species. The proposed project achieves consistency with this principle with the implementation of Mitigation Measure BIO-1.

Policy 4b-I-4 requires a biological assessment of any project site where sensitive species are present. This EIR fulfills this requirement.

Therefore, the proposed project is consistent with all applicable General Plan policies associated with biological resources.

Municipal Code

Mature trees are located adjacent to several of the warehouse buildings and access routes associated with the existing Preston Pipeline company. Construction activities associated with the Preston Property Residential Project would result in the removal of these trees. Because tree removal would occur, the proposed project would be required to comply with the City's Tree Maintenance and Protection Ordinance (Municipal Code Chapter 2). The proposed project would comply with tree removal and replacement requirements of the Municipal Code. For trees not eligible for protection under the Municipal Code, Mitigation Measure BIO-3 would render any impacts created by the removal of trees onsite less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM BIO-4 Prior to the issuance of grading or building permits, the project applicant shall obtain a tree removal permit from the City of Milpitas for any trees slated for removal with a trunk circumference of 37 inches or more, measured at 4.5 feet above ground level. Replacement trees shall be performed in accordance with the requirements of the

Tree Maintenance and Protection Ordinance. Removed trees that are not covered by the Tree Maintenance and Protection Ordinance, (i.e., less than 37 inches in circumference at 4.5 feet above ground level) shall be replaced onsite with a similar tree species at no less than a 1:1 ratio.

Level of Significance After Mitigation

Less than significant impact.

3.4 - Cultural Resources

3.4.1 - Introduction

This section describes the existing cultural setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on record search results from the Northwest Information Center (NWIC) and the Native American Heritage Commission (NAHC). Because the majority of the proposed project area is covered with asphalt, structures, and landscape elements, a pedestrian field survey of the project area was not conducted.

3.4.2 - Environmental Setting

Overview

The term “cultural resources” encompasses historic, archaeological, and paleontological resources, and burial sites. Below is a brief summary of each component:

- **Historic Resources:** Historic resources are associated with the recent past. In California, historic resources are typically associated with the Spanish, Mexican, and American periods in the State’s history and are generally less than 200 years old.
- **Archaeological Resources:** Archaeology is the study of prehistoric human activities and cultures. Archaeological resources are generally associated with indigenous cultures.
- **Paleontological Resources:** Paleontology is the study of plant and animal fossils.
- **Burial Sites:** Burial sites are formal or informal locations where human remains, usually associated with indigenous cultures, are interred.

3.4.3 - Cultural Setting

Prehistory

Early archaeological investigations in central California were conducted at sites located in the Sacramento-San Joaquin Delta region. The first published account documents investigations in the Lodi and Stockton area. The initial archaeological reports typically contained descriptive narratives, with more systematic approaches sponsored by Sacramento Junior College in the 1930s. At the same time, University of California at Berkeley excavated several sites in the lower Sacramento Valley and Delta region, which resulted in recognizing archaeological site patterns based on variations of inter-site assemblages. Research during the 1930s identified temporal periods in central California prehistory and provided an initial chronological sequence. In 1939, a researcher noted that each cultural period led directly to the next and that influences spread from the Delta region to other regions in central California. In the late 1940s and early 1950s, another researcher documented similarities in artifacts among sites in the San Francisco Bay region and the Delta and refined his findings into a cultural model that ultimately became known as the Central California Taxonomic System (CCTS). This system proposed a uniform, linear sequence of cultural succession. The CCTS system was challenged by another archaeologist, whose work looked at radiocarbon dating to show

that Early and Middle Horizon sites were not subsequent developments but, at least partially, contemporaneous.

To address some of the flaws in the CCTS system, a revision was introduced that incorporated a system of spatial and cultural integrative units. The revised system separated cultural, temporal, and spatial units from each other and assigned them to six chronological periods: Paleo-Indian (10000 to 6000 B.C.); Lower, Middle and Upper Archaic (6000 B.C. to A.D. 500), and Emergent (Upper and Lower, A.D. 500 to 1800). The suggested temporal ranges are similar to earlier horizons, which are broad cultural units that can be arranged in a temporal sequence. In addition, the revised system defined several patterns—a general way of life shared within a specific geographical region. These patterns include:

- Windmill Pattern or Early Horizon (3000 to 1000 B.C.)
- Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500)
- Augustine Pattern or Late Horizon (A.D. 500 to historic period)

Brief descriptions of these temporal ranges and their unique characteristics follow.

Windmill Pattern or Early Horizon (3000 to 1000 B.C.)

Characterized by the Windmill Pattern, the Early Horizon was centered in the Cosumnes district of the Delta and emphasized hunting rather than gathering, as evidenced by the abundance of projectile points in relation to plant processing tools. Additionally, atlatl, dart, and spear technologies typically included stemmed projectile points of slate and chert but minimal obsidian. The large variety of projectile point types and faunal remains suggests exploitation of numerous types of terrestrial and aquatic species. Burials occurred in cemeteries and intra-village graves. These burials typically were ventrally extended, although some dorsal extensions are known with a westerly orientation and a high number of grave goods. Trade networks focused on acquisition of ornamental and ceremonial objects in finished form rather than on raw material. The presence of artifacts made of exotic materials such as quartz, obsidian, and shell indicates an extensive trade network that may represent the arrival of Utian populations into central California. Also indicative of this period are rectangular *Haliotis* and *Olivella* shell beads, and charmstones that usually were perforated.

Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500)

The Middle Horizon is characterized by the Berkeley Pattern, which displays considerable changes from the Early Horizon. This period exhibited a strong milling technology represented by minimally shaped cobble mortars and pestles, although metates and manos were still used. Dart and atlatl technologies during this period were characterized by non-stemmed projectile points made primarily of obsidian. One archaeologist suggests that the Berkeley Pattern marked the eastward expansion of Miwok groups from the San Francisco Bay Area. Compared with the Early Horizon, there is a higher proportion of grinding implements at this time, implying an emphasis on plant resources rather than on hunting. Typical burials occurred within the village with flexed positions, variable cardinal

orientation, and some cremations. The practice of spreading ground ochre over the burial was common at this time. Grave goods during this period are generally sparse and typically include only utilitarian items and a few ornamental objects. However, objects such as charmstones, quartz crystals, and bone whistles occasionally were present, which suggest the religious or ceremonial significance of the individual. During this period, larger populations are suggested by the number and depth of sites compared with the Windmill Pattern. The Berkeley Pattern reflects gradual expansion or assimilation of different populations rather than sudden population replacement and a gradual shift in economic emphasis.

Augustine Pattern or Late Horizon (A.D. 500 to Historic Period)

The Late Horizon is characterized by the Augustine Pattern, which represents a shift in the general subsistence pattern. Changes include the introduction of bow and arrow technology; and most importantly, acorns became the predominant food resource. Trade systems expanded to include raw resources as well as finished products. There are more baked clay artifacts and extensive use of *Haliotis* ornaments of many elaborate shapes and forms. Burial patterns retained the use of flexed burials with variable orientation, but there was a reduction in the use of ochre and widespread evidence of cremation. Judging from the number and types of grave goods associated with the two types of burials, cremation seems to have been reserved for individuals of higher status, whereas other individuals were buried in flexed positions. One researcher suggests that the Augustine Pattern represents expansion of the Wintuan population from the north, which resulted in combining new traits with those established during the Berkeley Pattern.

Central California research has expanded from an emphasis on defining chronological and cultural units to a more comprehensive look at settlement and subsistence systems. This shift is illustrated by the early use of burials to identify mortuary assemblages and more recent research using osteological data to determine the health of prehistoric populations. Although debate continues over a single model or sequence for central California, the general framework consisting of three temporal/cultural units is generally accepted, although the identification of regional and local variation is a major goal of current archaeological research.

Native American Background

At the time of European contact, the project area was occupied by the Ohlone group of Native Americans, specifically the Tamyen tribelet. The Ohlone designates a linguistic family consisting of eight different yet related languages. The Ohlone languages, together with Miwok languages, compose the Utian language family of the Penutian stock. The eight Ohlone languages were quite different from one another with each language being related to its geographically contiguous neighbors.

The arrival of Ohlone groups into the Bay Area appears to be temporally consistent with the appearance of the Late Period artifact assemblage in the archaeological record, as documented at sites such as the Emeryville Shellmound and the Ellis Landing Shellmound. It is probable that the Ohlone

moved south and west from the delta region of the San Joaquin-Sacramento River region. The cultural territory of the Ohlone groups extended along the coast from San Francisco Bay in the north to just beyond Carmel in the south. The tribal group that most likely occupied the project area is the Tamyen language group whose territory extended from the southern end of San Francisco Bay into the lower reaches of the Santa Clara Valley and is estimated to have approximately 1,200 speakers.

The Ohlone tribes subsisted as hunter-gatherers and relied on local terrestrial and marine flora and fauna. The predominant plant food source was the acorn, but they also exploited a wide range of other plants, including various seeds, buckeye, berries, and roots. Protein sources included grizzly bear, elk, sea lions, antelope and black-tailed deer as well as smaller mammals such as raccoon, brush rabbit, ground squirrels, and wood rats. Waterfowl, including Canadian geese, mallards, green-winged teal, and American widgeon, were captured in nets, and decoys were used to attract them. Fish also played an important role in the Tamyen diet, and included steelhead, salmon, and sturgeon.

The Ohlone constructed watercraft from tule reeds and possessed bow and arrow technology. They fashioned blankets from sea otter pelts, fabricated basketry from twined reeds of various types, and assembled a variety of stone and bone tools in their assemblages. Ohlone villages typically consisted of domed dwelling structures, communal sweathouses, dance enclosures, and assembly houses constructed from thatched tule reeds and a combination of wild grasses, wild alfalfa, and ferns.

The Ohlone were politically organized into autonomous tribelets that had distinct cultural territories. Individual tribelets contained one or more villages with a number of seasonal camps for resource procurement within the tribelet territory. The tribelet chief could be either male or female and the position was inherited patrilineally but approval of the community was required. The tribelet chief and council were essentially advisors to the community and had the responsibilities of feeding visitors, directing hunting and fishing expeditions, ceremonial activities, and warfare on neighboring tribelets.

The first European contact with the Ohlone was probably in 1602, when Sebastian Vizcaíno's expedition moored in Monterey. The estimated Ohlone population in 1770—when the first mission was established in Ohlone territory—was approximately 10,000. By 1832, the population had declined to fewer than 2,000, mainly due to diseases introduced by the Europeans. When the Spanish mission system rapidly expanded across California, the Ohlone traditional way of life was irreversibly altered. The pre-contact hunter-gatherer subsistence economy was replaced by an agricultural economy, and the Spanish missionaries prohibited traditional social activities.

The Gold Rush brought further disease to the native inhabitants. By the 1850s, nearly all of the Ohlone had adapted in one way or another to economies based on cash income. Hunting and gathering activities continued to decline and were rapidly replaced with economies based on ranching and farming.

Historic Background

The Mexican revolt against Spain (1822) followed by the secularization of the missions (1834) changed land ownership patterns in the Santa Clara Valley. During the Mexican Period, vast tracts of land were granted to individuals, including former Mission lands, which had reverted to public domain. During this period, the raising of cattle for tallow and hides was the major economic pursuit in the Santa Clara Valley.

In 1848, California became a United States territory as a result of the Treaty of Guadalupe Hidalgo ending the war with Mexico. Santa Clara County was one of the original 27 counties in California and with the population explosion resulting from the Gold Rush, local farmers started to raise crops and livestock in the fertile Santa Clara Valley. The development of irrigation and new transportation systems in California led to wheat being replaced by more lucrative crops, like fruit and vegetables. The opening of the transcontinental railroad made shipping fresh and canned products to the major cities on the east coast easier by the 1880s.

By 1900, Santa Clara County had become a major food processing and commercial center with prunes, grapes, and orchard crops dominating the area. A major change in the focus of the Santa Clara Valley economy occurred in 1933, when Moffett Naval Air Station in Sunnyvale opened and a variety of military-related industries started up in the area. The change in the economic focus led to the eventual demise of the agricultural economy and the rise of the electronics industry in Santa Clara County. The expanding urbanization of Santa Clara in the 1940s and early 1950s helped spur the development of new housing for a non-farm population of working families, cannery and railroad workers, plumbers, carpenters, drivers and construction workers. The Silicon Valley boom of the 1980s and 1990s dramatically altered the regional landscape; industrial parks, commercial districts, and housing subdivisions have taken the place of the orchards that once flourished in the Santa Clara Valley.

City of Milpitas

The City of Milpitas dates back to the mid-1840s when it was a favorite stopover on the immigrant trail for travelers making the journey between Sutter's Fort in Sacramento and San Jose. By the 1850s, a stagecoach line between Oakland and San Jose had stops at Milpitas and the nearby Higuera Adobe, which at that time operated as a hotel and stage depot. This led to a moderate population growth as the area grew into farming, dairy, and agricultural community. In 1869, the first railroad carried freight and cargo between San Jose and Stockton, which in turn led to more settlers entering the Milpitas area to establish small businesses that supported the local farmers. Many entrepreneurs set up businesses on what was then called Oakland Road (now called Main Street) between the original alignment of Calaveras Road (now called Carlo Street) and the Alviso-Milpitas Road (now called Serra Way). By the late 20th century, this area became known as the "Midtown" district.

A saloon shown on the 1893 Sanborn Fire Insurance Map as "Goodwin's Hotel" burned down, and "Smith's Corner," which still stands, was built by John Smith in 1895, serving as a saloon serving beer and wine to local residents and travelers for a century before becoming a restaurant in 2001.

Built around this central location, dry good stores, grocery stores, small businesses, and service stations were established. In the 1920s, one of America’s first “fast food” chain restaurants, called “The Fat Boy,” opened in this core area. Although Milpitas continued to grow, even in the early 1950s it was a relatively small farming community with a population of 800 people and a downtown area covering just a few blocks.

In January 1954, Milpitas was incorporated as a city, and when San Jose attempted to annex Milpitas, an overwhelming majority of Milpitas voters rejected the annexation in the 1961 election as a result of a vigorous anti-annexation campaign. In the 1960s, the City approved the construction of the Calaveras Boulevard overpass, which is just north of the proposed project’s northern boundary. At the junction with the Union Pacific railroad, an overpass crossing over six sets of railroad tracks allowed local residents to cross the train tracks without having to wait for slow-moving freight cars to pass. However, construction of the overpass resulted in the loss of a historical residential area when the houses at that location were purchased by the City and either moved or demolished.

In 1955, the Ford Motor Company constructed a large assembly plant south of Curtis Avenue that sparked a rapid population increase in the 1960s and 1970s, resulting in extensive residential and retail developments in the nearby areas. The vast agricultural fields in the Milpitas area were quickly replaced by industrial complexes and residential housing developments. Soon, the once rural town of Milpitas had become a suburb of San Jose and the local population soared from approximately 800 in 1950 to 62,700 in 2000. The Ford factory closed in 1984 and was converted into The Great Mall of the Bay Area, which opened in 1994.

In early 2000s, Valley Transportation Authority completed an extension of its light rail system along the Tasman Drive / Great Mall Parkway corridor that connects Milpitas with destinations in San Jose, Santa Clara, Sunnyvale, and Mountain View. In January 2004, Milpitas celebrated its 50th anniversary of incorporation and issued the book, “Milpitas: Five Dynamic Decades” to commemorate 50 years of its history as a prosperous crossroads community.

3.4.4 - Regulatory Framework

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA), as amended, established the National Register of Historic Places (NRHP), which contains an inventory of the nation’s significant prehistoric and historic properties. Under 36 CFR 60, a property is recommended for possible inclusion on the NRHP if it is at least 50 years old, has integrity, and meets one of the following criteria:

- It is associated with significant events in history, or broad patterns of events.
- It is associated with significant people in the past.

- It embodies the distinctive characteristics of an architectural type, period, or method of construction; or it is the work of a master or possesses high artistic value; or it represents a significant and distinguishable entity whose components may lack individual distinction.
- It has yielded, or may yield, information important in history or prehistory.

Certain types of properties are usually excluded from consideration for listing in the NRHP, but they can be considered if they meet special requirements in addition to meeting the criteria listed above. Such properties include religious sites, relocated properties, graves and cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years.

State

California Register of Historical Resources

As defined by Section 15064.5(a)(3)(A-D) of the CEQA Guidelines, a resource shall be considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources (CR). The California Register of Historical Resources and many local preservation ordinances have employed the criteria for eligibility to the NRHP as a model, since the NHPA provides the highest standard for evaluating the significance of historic resources. A resource that meets the NRHP criteria is clearly significant. In addition, a resource that does not meet the NRHP standards may still be considered historically significant at a local or state level.

California Environmental Quality Act

The CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. The CEQA Guidelines direct lead agencies to evaluate archaeological sites to determine if they meet the criteria for listing in the California Register. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the California Register, potential adverse impacts to it must be considered. If an archaeological site is considered not to be an historical resource but meets the definition of a “unique archeological resource” as defined in Public Resources Code Section 21083.2, then it would be treated in accordance with the provisions of that section.

Local

City of Milpitas

General Plan

The Land Use Element of the General Plan established the following implementing policy related to cultural resources that are applicable to the proposed project:

- **2.a-I-9:** Preserve and maintain the historical landmarks of Milpitas and its physical setting so the residents will recognize they are a part of a distinctive and dynamic community.

3.4.5 - Methodology

Michael Brandman Associates evaluated potential impacts on cultural resources through review of the City of Milpitas General Plan, federal and state historic registers, and aerial photographs. A summary of the historic registries review is provided below.

Northwest Information Center

On March 12, 2012, MBA conducted a record search at the Northwest Information Center (NWIC) in Rohnert Park for the proposed project area and a 0.25-mile radius beyond the project boundaries. To identify any prehistoric or historic properties or resources, the current inventories of the National Register of Historic Places (NR), the California Register of Historic Resources (CR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California State Historic Resources Inventory (HRI) were reviewed to determine the existence of previously documented local historical resources.

Results from the NWIC indicate that 24 previous studies were conducted within 0.25 mile of the proposed project area; two of which include portions of the project area. Two sites have been recorded within a 0.25-mile radius of the project area. One (P-43-000139) is a prehistoric “distinct mound” site consisting of “shell, pitted stone, and burnt rock” that was recorded in 1973 (King 1973). The second site (P-43-002275) is described as an “intact buried historic-period archaeological deposit. . . at depths ranging from 50-75 centimeters below surface” (Far Western 2009). Site P-43-000139 is depicted on the NWIC map approximately 500 feet west of the southwest corner of the project boundary. This area has been heavily developed and it is unlikely that any portions of the site are extant. Site P-43-002275 is located approximately 800 feet east of the project area according to the NWIC map and was discovered by trenching efforts for the BART extension. Because of their distances, none of these sites would be impacted by project development.

3.4.6 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, cultural resources impacts resulting from the implementation of the proposed project would be considered significant if the project would:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
- d) Disturb any human remains, including those interred outside of formal cemeteries?

3.4.7 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Historical Resources

Impact CUL-1: Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered historic resources.

Impact Analysis

The project site is not listed on any federal, state, or local historic registers and does not contain any resources that are proposed for listing on any historic registers. One subsurface historic site, P-43-002275, was recorded in 2009 as approximately 800 feet east of the eastern project boundary; because of its distance from the project, this site would not be impacted by project development.

The project site contains approximately 144,000 square feet of light industrial buildings that were developed in the late 1990s and early 2000s. Because of their recent age (minimum age for historic structures is 45 years) and non-descript character, these buildings would not be eligible for listing on a federal, state, or local historic register. As such, the removal of the existing buildings and the development of the proposed residential uses would not adversely affect any known historical resources.

However, subsurface construction activities associated with the proposed project, such as trenching and grading, could potentially damage or destroy previously undiscovered historic resources. Accordingly, this is a potentially significant impact. Mitigation Measure CUL-1 is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-1 If potentially significant cultural resources are encountered during subsurface earthwork activities for the project, all construction activities within a 50-foot radius of the find shall cease until a qualified archaeologist determines whether the resource requires further study. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist and, if significant, recorded on appropriate California Department of Parks and Recreation (DPR) forms. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramics, fossils, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. If the resource is determined significant under CEQA, the qualified archaeologist shall

Biological Resources

prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive report and file it with the appropriate Information Center, and provide for the permanent curation of the recovered materials.

Level of Significance After Mitigation

Less than significant impact.

Archaeological Resources

Impact CUL-2: Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered archaeological resources.

Impact Analysis

No archaeological resources have been previously recorded within the project site, although one prehistoric site, P-43-000139, was recorded in 1973 as approximately 500 feet west of the southwest project boundary. The area where this site was recorded has been highly disturbed by development and it is unlikely that any portions of the site are extant. Additionally, there would be no impacts to this area from project development. However, subsurface construction activities associated with the proposed project, such as trenching and grading, could potentially damage or destroy previously undiscovered archaeological resources. Accordingly, this is a potentially significant impact. Mitigation Measure CUL-1 is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure CUL-1.

Level of Significance After Mitigation

Less than significant impact.

Paleontological Resources

Impact CUL-3: Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered paleontological resources.

Impact Analysis

Although no paleontological resources have been reported, Pleistocene alluvium is ranked as highly sensitive for significant paleontologic resources. Although a paleontological survey is not warranted, there is the possibility that project excavations occurring more than 10 feet below ground surface may impact significant paleontological resources. As such, Mitigation Measure CUL-3 requires the preparation and implementation of a paleontologic mitigation monitoring program during

construction activities to address the potential discovery of fossils and other paleontological resources. With the implementation of this mitigation measure, impacts would be reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-3 If the proposed project involves excavation activities at depths of more than 10 feet below ground surface, prior to issuance of grading permits, the project applicant shall retain a qualified paleontologist to prepare and submit a paleontologic mitigation monitoring program to the City of Milpitas for review and approval. The program shall at a minimum contain the following elements: (1) require monitoring by a qualified paleontologist of excavation activities below 10 feet, (2) empower monitor(s) to temporarily halt or divert equipment to allow removal of abundant or large specimens, and (3) identify steps for fossil salvaging. For the latter item, salvaged specimens shall be appropriately preserved, including curation of specimens into an established, accredited museum repository with permanent retrievable paleontologic storage, as appropriate. At the conclusion of monitoring, the paleontologist shall prepare and submit a report of findings to the City of Milpitas with an appended, itemized inventory of specimens and confirmation of the curation of recovered specimens into an established, accredited museum repository. This mitigation measure does not apply if excavation activities are limited to no more than 10 feet below ground surface.

Level of Significance After Mitigation

Less than significant impact.

Human Remains

Impact CUL-4: Subsurface construction activities associated with the proposed project may damage or destroy previously undiscovered human remains.

Impact Analysis

Subsurface construction activities associated with the proposed project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. Accordingly, this is a potentially significant impact. Mitigation Measure CUL-4 is proposed to reduce this potentially significant impact to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM CUL-4 In the event of the accidental discovery or recognition of any human remains, all activities must cease within 50 feet of the find and the following procedures shall be implemented, as applicable:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Santa Clara County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the county coroner determines the remains are Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.
2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the MLD or on the project site in a location not subject to further subsurface disturbance:
 - The NAHC is unable to identify an MLD or the MLD failed to make a recommendation within 48 hours after being notified by the NAHC.
 - The MLD fails to make a recommendation.
 - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Level of Significance After Mitigation

Less than significant impact.

3.5 - Geology, Soils, and Seismicity

3.5.1 - Introduction

This section describes the existing geology, soils, and seismicity setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the City of Milpitas General Plan, as well as review of information provided by the United States Geological Survey.

3.5.2 - Environmental Setting

Regional Geologic Setting

San Francisco Bay is a broad, shallow, alluvial depression within the Coast Ranges that has been subsequently filled with sedimentary or alluvial deposits. The project site lies within the relatively flat, urbanized floor of Santa Clara Valley, in the northern part of Santa Clara County. The Santa Clara Valley is a broad, northwesterly trending, alluvial-filled basin between the Santa Cruz Mountains to the south and the Diablo Range to the northeast. The alluvial sediments forming the valley floor are divided into older alluvial deposits that make up the majority of the valley fill, with younger deposits of alluvium confined to active stream channels. The Quaternary age-old alluvium consists of inter-layered, poorly sorted gravel, sand, silt, and clay. The thickness of the alluvial soil increases westward from zero at the base of the Mission Hills to 1,000 feet or more at the western edge of Milpitas. Beneath the project site, alluvium is estimated to be more than 300 feet thick.

Regional Seismicity

The term seismicity describes the effects of seismic waves that are radiated from an earthquake as it ruptures. While most of the energy released during an earthquake results in the permanent displacement of the ground, as much as 10 percent of the energy may dissipate immediately in the form of seismic waves. The probability of one or more earthquakes of magnitude 6.7 (Richter scale) or higher occurring in the project area has been evaluated by the United States Geological Survey (USGS). Based on the results of the USGS evaluation, there is a 62-percent likelihood that such an earthquake event will occur in the Bay Area between 2003 and 2032. The faults with the greater probability of movement with a magnitude of 6.7 or higher earthquake are the Hayward Fault at 27 percent, the San Andreas Fault at 21 percent, and the Calaveras Fault at 11 percent. To understand the implications of seismic events, a discussion of faulting and seismic hazards is provided below.

Faulting

Faults form in rocks when stresses overcome the internal strength of the rock, resulting in a fracture. Large faults develop in response to large, regional stresses operating over a long time, such as those stresses caused by the relative displacement between tectonic plates. According to the elastic rebound theory, these stresses cause strain to build up in the earth's crust until enough strain has built up to exceed the strength along a fault and cause a brittle failure. The slip between the two stuck plates or coherent blocks generates an earthquake. Following an earthquake, strain will build once again until

the occurrence of another earthquake. The magnitude of slip is related to the maximum allowable strain that can be built up along a particular fault segment. The greatest buildup in strain that is due to the largest relative motion between tectonic plates or fault blocks over the longest period of time will generally produce the largest earthquakes. The distribution of these earthquakes is a study of much interest for both hazard prediction and the study of active deformation of the earth's crust.

Deformation is a complex process, and strain caused by tectonic forces is not only accommodated through faulting but also by folding, uplift, and subsidence, which can be gradual or in direct response to earthquakes.

Faults are mapped to determine earthquake hazards, since they occur where earthquakes tend to recur. A historic plane of weakness is more likely to fail under stress and strain than a previously unbroken block of crust. Faults are, therefore, a prime indicator of past seismic activity, and faults with recent activity are presumed to be the best candidates for future earthquakes. However, since slip is not always accommodated by faults that intersect the surface along traces, and since the orientation of stresses and strain in the crust can shift, predicting the location of future earthquakes is complicated. Earthquakes sometimes occur in areas with previously undetected faults or along faults previously thought inactive. The Hayward fault is the closest fault to the proposed project and is located approximately 2.5 miles northeast of the site.

The Hayward, Calaveras, San Andreas, San Gregorio-Seal Cove-Hosgri, Concord, Greenville, Las Positas, and Verona are the eight active faults nearest to Milpitas. These faults and their characteristics are summarized in Table 3.5-1.

Table 3.5-1: Fault Summary

| Fault | Distance from Milpitas (miles/direction) | Maximum Historic Earthquake (date) | Maximum Moment Magnitude |
|--|---|---|---------------------------------|
| Hayward | 2.5/Northeast | 6.8 (1868) | 7.0 |
| Calaveras | 6.5/East | 6 + (1861) 6.2 (1984) | 7.0 ± 0.25 |
| San Andreas | 15.0/Southwest | 8.25 (1906) 7.1 (1989) | 8.3 |
| San Gregorio - Seal Cove-Hosgri | 28.0/Southwest | 6.1 (1926) | 7.4 |
| Concord | 23.0/North | 5.4 (1954) | 6.3 |
| Greenville | 23.0/Northeast | 5.8 (1980) | 6.6 ± 0.2 |
| Las Positas | 18.0/Northeast | 5.5 (1903) | 6.0 ± 0.5 |
| Verona | 14.0/East | None | 6.0 |
| Source: United States Geologic Survey, 2008. | | | |

Seismic Hazards

Seismicity describes the effects of seismic waves that are radiated from an earthquake as it ruptures. While most of the energy released during an earthquake results in the permanent displacement of the ground, as much as 10 percent of the energy may dissipate immediately in the form of seismic waves. To understand the implications of seismic events, a discussion of faulting and seismic hazards is provided below.

Seismic hazards pose a substantial danger to property and human safety and are present because of the risk of naturally occurring geologic events and processes impacting human development. Therefore, the hazard is influenced as much by the conditions of human development as by the frequency and distribution of major geologic events. Seismic hazards present in California include ground rupture along faults, strong seismic shaking, liquefaction, ground failure, landsliding, and slope failure.

Fault Rupture

Fault rupture is a seismic hazard that affects structures sited above an active fault. The hazard from fault rupture is the movement of the ground surface along a fault during an earthquake. Typically, this movement takes place during the short time of an earthquake, but it also can occur slowly over many years in a process known as creep. Most structures and underground utilities cannot accommodate the surface displacements of several inches to several feet commonly associated with fault rupture or creep.

Ground Shaking

The severity of ground shaking depends on several variables such as earthquake magnitude, epicenter distance, local geology, thickness, seismic wave-propagation properties of unconsolidated materials, groundwater conditions, and topographic setting. Ground shaking hazards are most pronounced in areas near faults or with unconsolidated alluvium.

The most common type of damage from ground shaking is structural damage to buildings, which can range from cosmetic stucco cracks to total collapse. The overall level of structural damage from a nearby large earthquake would likely be moderate to heavy, depending on the characteristics of the earthquake, the type of ground, and the condition of the building. Besides damage to buildings, strong ground shaking can cause severe damage from falling objects or broken utility lines. Fire and explosions are also hazards associated with strong ground shaking.

Ground Failure

Ground failure includes liquefaction and the liquefaction-induced phenomena of lateral spreading, and lurching.

Liquefaction is a process by which sediments below the water table temporarily lose strength during an earthquake and behave as a viscous liquid rather than a solid. Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sand and silt in areas with high

groundwater levels. The process of liquefaction involves seismic waves passing through saturated granular layers, distorting the granular structure, and causing the particles to collapse. This causes the granular layer to behave temporarily as a viscous liquid, resulting in liquefaction.

Liquefaction can cause the soil beneath a structure to lose strength, which may result in the loss of foundation-bearing capacity. This loss of strength commonly causes the structure to settle or tip. Loss of bearing strength can also cause light buildings with basements, buried tanks, and foundation piles to rise buoyantly through the liquefied soil.

Lateral spreading is lateral ground movement, with some vertical component, caused by liquefaction. In effect, the soil rides on top of the liquefied layer. Lateral spreading can occur on relatively flat sites with slopes less than 2 percent, under certain circumstances, and can cause ground cracking and settlement.

Lurching is the movement of the ground surface toward an open face when the soil liquefies. An open face could be a graded slope, stream bank, canal face, gully, or other similar feature.

Landslides and Slope Failure

Landslides and other forms of slope failure form in response to the long-term geologic cycle of uplift, mass wasting, and disturbance of slopes. Mass wasting refers to a variety of erosional processes from gradual downhill soil creep to mudslides, debris flows, landslides and rock fall—processes that are commonly triggered by intense precipitation, which varies according to climactic shifts. Often, various forms of mass wasting are grouped together as landslides, which are generally used to describe the downhill movement of rock and soil.

Geologists classify landslides into several different types that reflect differences in the type of material and type of movement. The four most common types of landslides are translational, rotational, earth flow, and rock fall. Debris flows are another common type of landslide similar to earth flows, except that the soil and rock particles are coarser. Mudslide is a term that appears in non-technical literature to describe a variety of shallow, rapidly moving earth flows.

3.5.3 - Regulatory Framework

State

The California Building Standards Code establishes building requirements for construction and renovation. The most recent version of the California Building Standards Code was adopted in 2010 by the California Building Standards Commission and took effect January 1, 2011, and it is based on the International Code Council's Building and Fire Codes. Included in the California Building Standards Code are the Electrical Code, Mechanical Code, Plumbing Code, Energy Code, and Fire Code.

The State of California provides minimum standards for building design through the California Building Standards Code (California Code of Regulations, Title 24). Where no other building codes

apply, Chapter 29 regulates excavation, foundations, and retaining walls. Finally, the 2010 California Building Standards Code regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act of 1990 (California Public Resources Code Section 1690-2699.6) addresses seismic hazards other than surface rupture, such as liquefaction and induced landslides. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

Alquist-Priolo Earthquake Fault Zoning Act

In response to the severe fault rupture damage of structures by the 1971 San Fernando earthquake, the State of California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972. This act required the State Geologist to delineate Earthquake Fault Zones along known active faults that have a relatively high potential for ground rupture. Faults that are zoned under the Alquist-Priolo Act must meet the strict definition of being “sufficiently active” and “well-defined” for inclusion as an Earthquake Fault Zones. The Earthquake Fault Zones are revised periodically, and they extend 200 to 500 feet on either side of identified fault traces. No structures for human occupancy may be built across an identified active fault trace. An area of 50 feet on either side of an active fault trace is assumed to be underlain by the fault, unless proven otherwise. Proposed construction in an Earthquake Fault Zone is permitted only following the completion of a fault location report prepared by a California Registered Geologist.

Local

City of Milpitas

General Plan

The General Plan establishes the following policy related to geology, soils, and seismicity applicable to the proposed project City of Milpitas General Plan.

- **Principle 5.a-G-1:** Minimize threat to life and property from seismic and geologic hazards.
- **Policy 5.a-I-1:** Require all projects within the Alquist-Priolo Special Studies Zone to have geologic investigations performed to determine the locations of active fault traces before structures for human occupancy are built.
- **Policy 5.a-I-2:** Require applications of all projects in the Hillside area and the Special Studies Zone to be accompanied by geotechnical reports ensuring safety from seismic and geologic hazards.
- **Policy 5.a-I-3:** Require projects to comply with the guidelines prescribed in the City’s Geotechnical Hazards Evaluation manual.

3.5.4 - Methodology

Michael Brandman Associates evaluated potential impacts on geology, soils, and seismicity through review of the City of Milpitas General Plan and review of information provided by the United States Geological Survey.

3.5.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, geology, soils, and seismicity impacts resulting from the implementation of the proposed project would be considered significant if the project would:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
 - ii. Strong seismic ground shaking?
 - iii. Seismic-related ground failure, including liquefaction?
 - iv. Landslides?
- b) Result in substantial soil erosion or the loss of topsoil?
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (Refer to Section 7, Effects Found Not To Be Significant.)

3.5.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Seismic Hazards

Impact GEO-1: **The development of the proposed project may expose persons or structures to seismic hazards.**

Impact Analysis

Potential seismic hazards include fault rupture, strong ground shaking, ground failure, and landsliding. Each of these hazards is discussed below.

Fault Rupture

There are no faults or fault traces located within the project site boundaries. In addition, no Alquist-Priolo zones are designated within the project site. This condition precludes the possibility of fault rupture from occurring on the project site. No impacts would occur.

Strong Ground Shaking

The project site may be exposed to moderate to severe ground shaking during an earthquake, particularly one that occurs on either the Hayward fault or the Calaveras fault. If unabated, structures may be at risk of failure during a seismic event.

Mitigation is proposed requiring the project applicant to submit a design level geotechnical report prepared by a qualified geotechnical engineer to the City of Milpitas for review and approval prior to issuance of building permits. This report would identify potential ground shaking impacts and identify structural design measures necessary to reduce the risks of strong seismic ground shaking to acceptable levels. Following the City's approval of the report, the structural design measures would be incorporated into the proposed project's plans. The implementation of this mitigation measure would ensure that potential ground shaking impacts are reduced to a level of less than significant.

Seismic-Related Ground Failure

The Liquefaction Susceptibility Map for the San Francisco Bay Area indicates that the project site is located within a moderate liquefaction susceptibility zone. If unabated, ground failure may occur during a seismic event, causing structures to fail.

Mitigation is proposed that would require the project applicant to submit a design level geotechnical report prepared by a qualified geotechnical engineer to the City of Milpitas for review and approval prior to issuance of building permits. This report would identify potential liquefaction impacts and identify structural design measures necessary to reduce the risks of seismic-related ground failure (including liquefaction) to acceptable levels. Following the City's approval of the report, the structural design measures would be incorporated into the proposed project's plans. The implementation of this mitigation measure would ensure that potential seismic-related ground failure impacts are reduced to a level of less than significant.

Landsliding

The project site is characterized by flat relief and is not located within an area identified as being susceptible to landslides. This condition precludes the possibility of earthquake-induced landslides inundating the project site. No impacts would occur.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM GEO-1 Prior to issuance of building permits, the project applicant shall submit a design-level geotechnical report to the City of Milpitas for review and approval. The design-level investigation shall be prepared in accordance with California Building Code Standards and Milpitas Municipal Code standards and address the potential for seismic hazards to occur onsite, and it shall identify abatement measures to reduce the potential for such an event to acceptable levels. The recommendations of the approved design-level geotechnical report shall be incorporated into the project plans.

Level of Significance After Mitigation

Less than significant impact.

Erosion Hazards

Impact GEO-2: Construction activities associated with the project may result in substantial soil erosion or the loss of topsoil.

Impact Analysis

Construction activities associated with the proposed project would involve grading and excavation activities that could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the project site. National Pollutant Discharge Elimination System (NPDES) stormwater permitting programs regulate stormwater quality from construction sites, which includes erosion and sedimentation. Under the NPDES permitting program, the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) are required for construction activities that would disturb an area of 1 acre or more. The SWPPP must identify potential sources of erosion or sedimentation that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement Best Management Practices (BMPs) that ensure the reduction of these pollutants during stormwater discharges. Typical BMPs intended to control erosion include sand bags, detention basins, silt fencing, storm drain inlet protection, street sweeping, and monitoring of water bodies.

These requirements have been incorporated into the proposed project as mitigation. The implementation of an SWPPP and its associated BMPs would reduce potential erosion impacts to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure HYD-1.

Level of Significance After Mitigation

Less than significant impact.

Unstable Geological Units or Soils

Impact GEO-3: **The development of the proposed project would not expose persons or structures to hazards associated with unstable geologic units or soils.**

Impact Analysis

The project site currently supports urban development and has been committed to such use for several decades. The project site was previously graded and soil engineered to support urban development and, therefore, any adverse conditions associated with unstable geological units or soils were abated as part of this process. Accordingly, the development of the proposed project would not expose persons or structures to hazards associated with unstable geologic units or soils. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Expansion Soils

Impact GEO-4: **The development of the proposed project may expose persons or structures to hazards associated with expansive soils.**

Impact Analysis

The project site currently supports urban development and has been committed to such use for several decades. The project site was previously graded and soil engineered to support urban development and, therefore, any adverse conditions associated with expansive soils were abated as part of this process. Accordingly, the development of the proposed project would not expose persons or structures to hazards associated with expansive soils. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.6 - Hazards and Hazardous Materials

3.6.1 - Introduction

This section describes the existing hazards and hazardous materials setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Phase I and Phase II Environmental Site Assessments (ESAs), prepared in July and August 2011, respectively, by ENGEO Incorporated and included in this EIR as Appendix D, Phase I and Phase II Environmental Site Assessments.

3.6.2 - Environmental Setting

Hazardous Materials

Hazardous materials, as defined by the California Code of Regulations, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

- Toxic – causes human health effects
- Ignitable – has the ability to burn
- Corrosive – causes severe burns or damage to materials
- Reactive – causes explosions or generates toxic gases

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that define a material as hazardous also define a waste as hazardous. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contain technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Phase I Environmental Site Assessment

A Phase I ESA dated July 12, 2011 was prepared by ENGEO Incorporated to determine the presence or absence of hazardous materials on the project site. The Phase I ESA identified one recognized environmental condition within the project site consisting of a methyl tertiary butyl ether (MTBE) plume. In addition, two historic recognized environmental conditions were identified, consisting of the former presence of an automotive wrecking yard at the southern portion of the project site and the previous presence and subsequent mitigation of soil and groundwater impacts. The findings of the Phase I ESA are summarized below.

Previous Studies

ENGEIO Incorporated reviewed publically available reports and regulatory agency communications regarding environmental characterization and remediation activities at the project site. The following is a summary of the literature reviewed.

Clayton Environmental, Phase I ESA, January 1999

Clayton Environmental prepared a Phase I Environmental Site Assessment (Clayton Phase I ESA) in January 1999 for the 8.5-acre site at 80 Railroad Avenue, identified as APN 086-26-009, which includes the northern portion of the project site. The Clayton Phase I ESA noted that, based on historical review, livestock pens were observed in the southwest corner of the property dating to 1954. The property reportedly was occupied by General Concrete Products from 1964 to 1970 and was later occupied by Truss Com from 1975 through 1990.

In 1983, black sludge was observed in a storm sewer at the property. The City of Milpitas expressed concern over potential contamination. A 1989 inspection by the Milpitas Fire Department noted obvious fuel/oil spillage at the gas pumps, the presence of six 55-gallon drums containing waste oil and transmission fluid, and visible evidence of oil impact in the creek. In addition, an onsite hole measuring 10 feet in depth and 2 feet in diameter was present at the property. A soil boring was advanced adjacent to the hole to a depth of 10 feet below the ground surface. A grab groundwater sample detected a total oil and grease concentration of 15 milligrams per liter (mg/L), and several metals concentrations (arsenic at 45 micrograms per liter [$\mu\text{g/L}$], copper at 38 $\mu\text{g/L}$, nickel at 11 $\mu\text{g/L}$, and zinc at 31 $\mu\text{g/L}$). A test trench was excavated near the hole in 1994. A total oil and grease concentration of 8,800 milligrams per kilogram (mg/kg) was detected at 3 feet below ground surface.

A 1,000-gallon underground storage tank (UST) was reportedly removed in 1991. A total of 20 cubic yards of soil were excavated. The stockpiled soil exhibited elevated concentrations of petroleum hydrocarbons; however, confirmation sampling of the excavation did not identify significant impacts. A grab sample of groundwater did not exhibit detectable concentrations of total petroleum hydrocarbons (TPH) gasoline, diesel or benzene toluene ethylbenzene xylenes (BTEX), but did exhibit a lead concentration of 14 mg/L. In addition, three large, hydrocarbon surface stains were present at the property. Subsequent testing indicated elevated concentrations of total oil and grease levels. Three thousand tons of impacted soils were excavated and backfilled with clean soil. Confirmation sampling did not exhibit detectable total oil and grease concentrations. Subsequent testing of groundwater (a total of four grab groundwater samples) did not identify volatile organic compounds (VOCs) or TPH analytes. Low concentrations of metallic analytes were detected. A second underground storage tank (1,000-gallon diesel tank) was reportedly removed in August 1992.

Additionally, Truss Com had historically used steam cleaning on its equipment. Given the nearby creek, there was concern that runoff could have impacted the creek. A total of 26 sediment samples were collected from the creek. TPH-motor oil was detected in numerous samples, ranging from 11 to 340 mg/kg.

The San Francisco Bay Regional Water Quality Control Board (RWQCB) noted the ongoing presence of the underground storage tanks, the presence of impacted soil, and oil impact in the creek, but granted case closure in June 1995.

The Clayton Phase I ESA recommended several Phase II activities, including the following:

- Soils testing along the rail road track alignment
- Testing of reported undocumented fill at the property
- Identification and destruction of a monitoring well reportedly present at the property
- Sampling of a debris pile at the property

Clayton Environmental, Phase II ESA, April 1999

Clayton Environmental conducted a Phase II ESA (Clayton Phase II ESA) in April 1999 for the 8.5-acre vacant parcel at 80 Railroad Avenue and 151 Bothelo Avenue. The 151 Bothelo Avenue parcel consisted of a 1-acre parcel occupied by an office (constructed in 1987) and outbuildings, along with two underground storage tanks. Clayton Environmental collected 16 soil and three groundwater samples from the eight soil borings (BOT-1 through BOT-8). The samples were analyzed for VOCs; polychlorinated biphenyls (PCBs); pesticides; CAM-17 metals; and TPH-gasoline, TPH-diesel, and TPH-motor oil. Analytical results obtained from the site investigation indicated that petroleum hydrocarbons were present in the subsurface. One sample collected from 80 Railroad Avenue exhibited a total recoverable petroleum hydrocarbon (TRPH) concentration of 30 mg/kg (the other three samples collected from 80 Railroad Avenue did not exhibit detectable concentrations). Samples collected from 151 Bothelo Avenue exhibited maximum detected concentrations of 38 mg/kg and 160 mg/kg for TPH-diesel and TPH-motor oil, respectively. No TPH-gasoline or BTEX was detected. One sample exhibited a perchloroethylene (PCE) concentration of 0.05 mg/kg, but no other VOCs were detected. The most significant findings were for a single groundwater sample, which contained gasoline at 2,900 µg/L, TPH-diesel concentrations ranging from 710 to 950 µg/L, TPH-motor oil concentrations ranging from 740 to 1,100 µg/L, toluene at 0.7 µg/L, and xylenes at 0.6 µg/L. The sample location was located immediately downgradient of the two fuel USTs. In addition, pesticides, VOCs, PCBs, and metals were detected in several soil samples; however, the concentrations of these chemicals were considered low and their distributions were limited in extent. Clayton attempted to locate the monitoring well at the project site but was unsuccessful. Reportedly, the well had been installed in July 1992. It was assumed that the well had been destroyed. The well destruction was considered out of compliance because no permit had been filed or inspection provided. However, the well destruction was granted no further action status and was closed.

The RWQCB reviewed Clayton's data and requested that additional groundwater samples be collected in and around the underground storage tanks and tested for gasoline-related compounds. Clayton conducted a subsequent petroleum hydrocarbon plume definition investigation at the subject property and presented the results in a letter to the RWQCB dated June 14, 1999. The investigation

included the advancement of four hydropunch borings (HP-1 through HP-4) using Geoprobe push technology to collect grab groundwater samples in the vicinity of the two underground storage tanks. The groundwater samples were analyzed for TPH-gasoline, BTEX, and MTBE. In addition, laboratory chromatographs from the March 1999 groundwater samples BOT-1 and BOT-7 were reevaluated for MTBE concentrations. The grab groundwater analytical results indicated that a fuel release, primarily gasoline, had occurred in the vicinity of the fuel underground storage tanks. The most significant finding was for grab-groundwater sample HP-1 (collected about 40 feet downgradient from the location of the underground storage tanks), where MTBE was reported at 13,000 µg/L, total BTEX at 6.3 µg/L, and gasoline at 62 µg/L. Sample HP-2 (about 60 feet downgradient from the underground storage tanks) contained no detectable petroleum hydrocarbons. Sample HP-3 contained 12 µg/L of MTBE, and sample HP-4 (immediately upgradient of the underground storage tanks) contained MTBE at 360 µg/L. Re-evaluation of the chromatographs for the previous grab-groundwater samples collected from BOT-1 (located immediately downgradient of the underground storage tanks excavation) revealed MTBE at 700 µg/L, no detectable benzene, and TPH-g at 2,900 µg/L. Groundwater sample BOT-7 (located about 80 feet downgradient of the underground storage tanks) was found to contain MTBE at 30 µg/L, but no TPH-g or BTEX.

Preston removed the two underground storage tanks in October 2000 (one 1,000-gallon diesel tank and one 2,000-gallon gasoline tank), under the supervision of the Milpitas Fire Department. The resulting excavation measured approximately 24 feet in length, 20 feet in width, and 12 feet in depth. No TPH-gasoline or BTEX was detected in sidewall samples, but trace MTBE was detected in all sidewall samples ranging from 0.007 to 0.14 mg/kg. Elevated concentrations of TPH-gasoline, TPH-diesel, BTEX, and MTBE were detected in groundwater. One thousand gallons of water were purged from the pit, and approximately 60 pounds of Oxygen Release Compound slurry was added when the excavation was backfilled with pea gravel. In September 2001, three groundwater monitoring wells (CW-1 through CW-3) were installed at the site and a groundwater monitoring program was initiated. Five groundwater monitoring events were performed from September 2001 to September 2002. During this time, MTBE concentration showed a decreasing trend in monitoring well CW-1 (located near the UST pit), but an increasing trend was observed in the downgradient well CW-3. In a letter dated August 5, 2003, the Santa Clara Valley Water District requested that an additional groundwater investigation be performed to determine the downgradient extent of the MTBE plume.

The additional groundwater investigation, performed in September 2003, included the collection of grab groundwater samples from borings HP-5 through HP-9. No TPH-gasoline or BTEX was detected in any of the grab groundwater samples; MTBE was detected only in sample HP-7 at 33 µg/L, and tert-butyl alcohol (TBA) was detected only in sample HP-5 at 8.2 µg/L. Based on these findings, one additional groundwater monitoring well (CW-4) was installed in a downgradient location near boring HP-7.

SECOR, Work Plan to Perform Feasibility Study and Develop Corrective Action Plan, December 2004
SECOR prepared a work plan that summarized the site history and the confirmed subsurface contamination, and it presented a plan to study the feasibility of a number remedial options, including no action, pump and treat, *in situ* chemical oxidation, and enhanced bioremediation.

MACTEC, Feasibility Study and Corrective Action Plan, August 2005

MACTEC presented the findings of the feasibility study considering four potential technologies, including monitored natural attenuation, pump and treat, *in situ* chemical oxidation, and enhanced bioremediation. Because of the small mass of MTBE at the site, the lack of sensitive receptor surveys, and other considerations, monitored natural attenuation was recommended. A natural attenuation rate of 0.0011 µg/L/day was estimated, and it was determined that acceptable MTBE levels would be reached by 2020.

In August 2005, a Corrective Action Plan (CAP) was submitted, which recommended use of Monitored Natural Attenuation for site remediation. Oversight of the case was transferred from the Santa Clara Valley Water District to the Santa Clara County Department of Environmental Health in 2005.

Applied Remedial Technologies, Workplan for Additional Investigation, April 2008

Applied Remedial Technologies proposed to collect eight grab samples downgradient from CW-4. Applied Remedial Technologies also proposed to install one or two monitoring wells if the grab sampling program demonstrated significant plume migration downgradient from MW-4. None of the grab samples (when completed) detected MTBE, indicating the plume was limited in areal extent as discussed above.

In May 2008, Applied Remedial Technologies performed an additional site investigation to monitor the progress of the natural attenuation program and determine the extent of potential down gradient MTBE migration. Groundwater monitoring data collected during the preceding three years indicated that while declining trends in MTBE concentration were observed in Wells CW-1 and CW-3, an increasing trend in downgradient Well CW-4 was apparent. Data was collected from six locations and included six logs of subsurface lithology and hydropunch grab groundwater samples. The grab-groundwater analytical results were non-detect for MTBE in each sample, indicating that MTBE movement during the 5-year period between the 2003 and 2008 had been limited in extent.

Applied Remedial Technologies, Corrective Action Plan Amendment, October 2008

Applied Remedial Technologies performed an evaluation of Monitored Natural Attenuation at the site. Based on a re-evaluation of the decay rate of MTBE concentrations and the original source concentration, a revised date of November 2027 was calculated when the MTBE maximum contaminant level would be reached. Additionally, based on a re-evaluation of the site stratigraphy, the contaminant mass of MTBE was revised to 3.31 pounds. After a reconsideration of the previously

explored remedial technologies, Applied Remedial Technologies recommended the installation of a pump-and-treat system at the site, coupled with granulated activated carbon treatment.

Letter from State Water Resources Control Board (SWRCB), February 17, 2009

ART had asked SWRCB to reconsider the Notice of Suspension of Letter of Commitment dated November 7, 2008. The request was denied.

SCCDEH Correspondence, 2010–2011

Available documentation on the Santa Clara County Department of Environmental Health website indicates that the proposed groundwater extraction system was not installed. A summary email from Sarah Salcedo of Stratus Environmental sent to Lani Lee of Santa Clara County Department of Environmental Health on November 24, 2010, summarized a meeting that took place on September 16, 2010. The summary indicated that Preston was experiencing significant financial difficulty and that no additional spending on remediation could take place. Stratus requested that remediation be postponed until Preston’s financial position improved, at which time the semi-annual monitoring would continue. Stratus also indicated that a CAP would be prepared, likely considering pump and treat, ozone/peroxide injection, or Monitored Natural Attenuation. It was also opined that the delay was reasonable because of the inferred stability of the MTBE plume. Stratus indicated that a CAP could be submitted by March 30, 2011.

A correspondence dated November 30, 2010, from Santa Clara County Department of Environmental Health to Preston confirmed that the groundwater extraction system was never installed. It also set March 30, 2011 as the CAP due date. A follow-up “late letter” dated June 30, 2011 indicated that CAP still had not been submitted and that a new due date of July 29, 2011 had been filed, and it indicated that inaction could result in referral of the case to the Santa Clara County District Attorney.

Stratus Environmental, Quarterly Groundwater Monitoring Report, First Quarter 2011, Preston Pipelines Facility, 151 Bothelo Avenue, Milpitas, California, April 20, 2011.

Stratus completed a semi-annual monitoring report for the property. Four wells, CW-1 through CW-4, were sampled. Groundwater was located approximately 4 to 5 feet below ground surface. The groundwater gradient was directed toward the northwest. Several analytes were detected in the wells as shown in Table 3.6-1.

Table 3.6-1: Detected Groundwater Analytes

| Well | TPH-g (µg/L) | MTBE (µg/L) | DIPE (µg/L) | TAME (µg/L) |
|------|--------------|-------------|-------------|-------------|
| CW-1 | 220 | 450 | ND | 2 |
| CW-2 | ND | ND | 5.2 | ND |
| CS-3 | 630 | 1400 | ND | 4.3 |
| CW-4 | 53 | 110 | ND | ND |

Table 3.6-1 (cont.): Detected Groundwater Analytes

| Well | TPH-g (µg/L) | MTBE (µg/L) | DIPE (µg/L) | TAME (µg/L) |
|---|-----------------|----------------|----------------|----------------|
| Abbreviations: TPH-g: Total petroleum hydrocarbons gasoline MTBE: Methyl tertiary butyl ether DIPE: Diisopropyl ether TAME: Tertiary-amyl methyl ether ND: Not detected Source: ENGEO Incorporated, 2011. | | | | |

Well CW-1 is closest to the former UST, followed by CW-3, then CW-4. Well CW-2 is off axis, but even in distance with CW-2 from the UST. In general, MTBE concentrations have been decreasing in CW-1 and CW-3, but increasing in CW-4. The plume extends approximately 180 feet in length from the former UST location. In the report, Stratus indicated it is preparing a CAP.

As of August 2009, the Closure Review presented in Geotracker listed the following status:

- *Inadequate Source Control*: feasible source control not performed; no active remediation conducted; in process of implementing active remediation
- *Plume Instability*: groundwater contamination plume not stable or decreasing; increasing concentrations and downgradient migration; significant rebound in concentrations after remediation—MTBE increasing instead of decreasing
- *Groundwater Impacts*: groundwater impacted above background—1800 ppb MTBE (revised since date listed)
- *Procedural Impediments*: site data and reports not uploaded to Geotracker—nothing uploaded since 3/09 (revised since date listed)
- *Letter of Commitment Suspended*: claims financial difficulty w/o reimbursement

Records Search

Environmental Data Resources, Inc. (EDR) performed a search of federal, state, and local databases listing contaminated sites, Brownfield sites (a development site having the presence or potential presence of a hazardous substance, pollutant, or contaminant), UST sites, waste storage sites, toxic chemical sites, contaminated well sites, clandestine drug lab sites, and other sites containing hazardous materials. The record search results are discussed below.

Project Site

The project site is listed on 10 databases: CERC-NFRAP, AST, SLIC, Envirostor, LUST, HIST LUST, CA FID UST, HIST UST, SWEEPS, UST, and HIST CORTESE. Each is discussed below.

- **CERC-NFRAP:** The CERC-NFRAP database includes archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of the U.S. EPA’s knowledge, assessment at a site has been completed, and the EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL) unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.
- **AST:** The Above Ground Storage Tank (AST) Database contains registered ASTs.
- **SLIC:** The Spills, Leaks, Investigations, and Cleanups (SLIC) listings includes unauthorized discharges from spills and leaks, other than from underground storage tanks or other regulated sites.
- **Envirostor:** The Department of Toxic Substances Control’s (DTSC’s) Site Mitigation and Brownfields Reuse Program’s EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (NPL); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including but not limited to identification of formerly contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.
- **LUST:** Geotracker’s Leaking Underground Storage Tank (LUST) Incident Reports contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.
- **HIST LUST:** A listing of open and closed leaking underground storage tanks.
- **CA FID UST:** The California Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board.
- **HIST UST:** The Hazardous Substance Storage Container Database is a historical listing of UST sites.
- **SWEEPS UST:** Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contracted by the SWRCB in the early 1990s. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

- **HIST CORTESE:** The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (CALSTATES).

Surrounding Land Uses

Table 3.6-2 summarizes recorded sites within 0.5 mile of the project site.

Table 3.6-2: Records Search Summary

| Name | Location | Database(s) |
|--|---------------------------------|---|
| Southern Pacific Transportation Co | 80 Railroad Avenue | SLIC |
| Truss COM | 80 Railroad Avenue | CA FID UST, SWEEPS UST, HIST CORTESE, HIST UST, LUST, HIST LUST |
| Calaveras Auto Parts, Inc. | 27 E. Carlo | RCRA-SQG, FINDS |
| Milpitas Cleaners | 182 S. Main Street | RCRA-SQG, FINDS, HAZNET, EMI |
| Beacon/Main Street Gas | 10 N. Main Street | LUST, HIST LUST, UST, HIST UST, CA FID UST, SWEEPS UST, HIST CORTESE, |
| Mr. Brake and Clutch | 312 S. Main Street | RCRA-SQG, FINDS, HAZNET |
| Shell | 45 Main Street | LUST |
| Texaco/Quality Tune UP | 92 Serra Way & Abel | HIST UST, HIST CORTESE, LUST, HIST LUST, HAZNET, CA FID UST, SWEEPS UST, |
| Milpitas Transmission/Michaels Auto Repair | 130 Winsor Street | LUST, CA FID UST, HIST UST, HIST LUST, SWEEPS UST, HIST CORTESE, HAZNET, |
| Old City Corporation Yard | 116 N. Main Street | HIST UST, LUST, CA FID UST, HIST, LUST, SWEEPS UST, HIST CORTESE |
| Pacific Bell | Wayne Station – 76 Carlo Street | RCRA-SQG, FINDS, CA FID UST, UST, HIST UST, SWEEPS UST, HAZNET, RCRA-SQG, FINDS |
| Community Center/Milpitas Senior Center | 160 N. Main Street | HIST UST, LUST, CA FID UST, HIST LUST, SWEEPS UST, HAZNET, HIST CORTESE |
| Chevron Service Station/Bulk Plant | 198 Winsor Avenue | Envirostor |
| Kmart Enterprises | 75 E. Weller Lane | HIST UST, CA FID UST, SWEEPS UST |
| Contempo Design West, Inc. | 212 Railroad Avenue | RCRA-SQG, FINDS, NPDES, Drycleaners, HAZNET, EMI |
| Flex ICS, Inc. | 165 Topaz Street | RCRA-LQG, FINDS, HAZNET |

Table 3.6-2 (cont.): Records Search Summary

| Name | Location | Database(s) |
|---|----------------------------|--|
| Chevron/The Apton | 230 Main Street | LUST, NPDES, HIST CORTESE, Envirostor |
| USA Petroleum Company/CBA Equipment, Inc. | 200 Serra Way | HIST UST, HIST CORTESE, LUST, HIST LUST, CHMIRS, CA FID UST, SWEEPS UST, EMI |
| Domain Technology | 182 Topaz Street | RCRA-NonGen, FINDS |
| California Micro Devices | 215 Topaz Street | RCRA-SQG, WDS, HAZNET, EMI, Envirostor |
| Shapell Industries of N. California | 100 N. Milpitas Boulevard | RCRA-SQG, FINDS, NPDES, HIST CORTESE, LUST, HIST LUST, UST, SWEEPS UST, HAZNET |
| Western Digital Technologies | 345 Los Coches Street | RCRA-SQG, FINDS, RAATS, EMI, Envirostor |
| Milpitas Post Office | 450 S. Abel Street | LUST, HIST LUST, HIST UST, SWEEPS UST, HAZNET, HIST CORTESE |
| UNOCAL | 190 W. Calaveras Boulevard | LUST, HIST LUST, HAZNET, HIST CORTESE |
| PMT – Union Pacific Railroad | 650 Hammond Avenue | NPDES, LUST, HIST LUST, HIST CORTESE |
| Akashic Memories Corp. | 304 Turquoise Street | EMI, ENVIROSTOR |
| Federal Express | 620 S. Main Street | LUST, HIST LUST, SWEEPS UST, HAZNET |
| NTA Industries, Inc. | 398 Railroad Court | HAZNET, Envirostor |
| Chevron | 342 Calaveras | HIST CORTESE, LUST, HIST LUST, HIST UST, HAZNET. |
| Texaco Service Station | 511 Los Coches | HIST CORTESE, HAZNET |
| Elmwood Rehabilitation | 701 Abel Street | HIST CORTESE, HIST UST |
| Arco Service Station | 43 S. Abbott Avenue | Notify 65 |
| International Microcircuits, Inc. | 525 Los Coches Street | HAZNET, EMI, Envirostor |
| Tosco Northwest Co/Mobil/Former BP Oil | 97 Abbott Avenue | WDS, LUST, CA FID UST, HIST LUST, SWEEPS UST, HAZNET, NPDES, HIST CORTESE |
| Arco | 43 Abbott Avenue | HIST CORTESE, LUST, HIST LUST, HAZNET |
| Marylinn Well Pump Station | 350 Marylinn | HIST CORTESE, LUST, HIST LUST, HIST UST |
| Devcon Construction, Inc. | 555 Los Coches Street | LUST, HIST LUST, UST, HIST UST, SWEEPS UST, HAZNET |

Table 3.6-2 (cont.): Records Search Summary

| Name | Location | Database(s) |
|--|----------|-------------|
| <p>Abbreviations:</p> <p>CA FID UST = The California Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board.</p> <p>CHMIRS = California Hazardous Material Incident Report System. Contains information on reported hazardous materials incidents (accidental releases or spills).</p> <p>Drycleaners = A list of drycleaner facilities that have EPA ID numbers.</p> <p>EMI = Emissions Inventory Data. Toxics and criteria pollutant emissions data collected by the Air Resources Board and local air pollution agencies.</p> <p>Envirostor = sites that have known contamination or sites for which there may be reasons to investigate further.</p> <p>HAZNET = Facility and Manifest Data. Data from hazardous waste manifests collected by the Department of Toxic Substances Control.</p> <p>FINDS = Facility Index System/Facility Registry System. Contains both facility information and pointers to other sources that provide more information about hazardous materials usage.</p> <p>HIST CORTESE = Cortese Hazardous Waste and Substances Site List. Encompasses sites listed on the LUST, SWF/LF, and Cal-Sites databases. No longer updated.</p> <p>HIST UST = Hazardous Substance Storage Container Database. Historical listing of underground storage tank sites.</p> <p>HIST LUST = Leaking Underground Fuel Tank Report. Contains records of reported leaking underground storage tank incidents.</p> <p>LUST = Geotracker’s Leaking Underground Storage Tank (LUST) Incident Reports. Records contain an inventory of reported leaking underground storage tank incidents.</p> <p>Notify 65 = Proposition 65 Records. Contains facility notifications about any release that could impact drinking water.</p> <p>NPDES = National Pollutant Discharge Elimination System. A listing of NPDES permits, including stormwater.</p> <p>RAATS = RCRA Administration Action Tracking System. Contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.</p> <p>RCRA-LQG = Resource Conservation and Recovery Act Large Quantity Generator. Large quantity generator of hazardous wastes governed by RCRA.</p> <p>RCRA-NonGen = Resource Conservation and Recovery Act Non-Generator. Storage, transfer or other handling of hazardous wastes governed by RCRA.</p> <p>RCRA-SQG = Resource Conservation and Recovery Act Small Quantity Generator. Small quantity generator of hazardous wastes governed by RCRA.</p> <p>SWEEPS UST = Statewide Environmental Evaluation and Planning System. Lists underground storage tank locations. No longer updated.</p> <p>SLIC = The Spills, Leaks, Investigations, and Cleanups (SLIC) listings includes unauthorized discharges from spills and leaks, other than from underground storage tanks or other regulated sites.</p> <p>UST = Active Underground Storage Tank facilities as identified by local regulatory agencies.</p> <p>WDS = Waste Discharge System. Sites that have been issued waste discharge requirements.</p> <p>Source: ENGEIO Incorporated, 2011.</p> | | |

As shown in Table 3.6-2, there are multiple listed sites within 0.5 mile of the project site. This distance encompasses all surrounding properties that would have the potential to adversely impact the project site. However, ENGEIO Incorporated concluded that none of the sites would reasonably be expected to significantly impact the project site.

Aerial Photographs

Aerial photographs of the project area dating to 1939 were obtained as part of the Phase I ESA process. The changes that occur to the project site and surroundings are summarized in Table 3.6-3.

Table 3.6-3: Aerial Photograph Summary

| Year | Scale (inches:feet) | Summary |
|---|---------------------|--|
| 1939 | 1:555 | Much of the southern half of the site consists of residential structures and outbuildings, as well as some open space. The northern half of the site is relatively open, but it includes an unpaved road and is also bisected by a creek. Calaveras Road, Bothelo Avenue, and the Southern Pacific ¹ railroad tracks are visible. Nearby properties are devoted to residential, agricultural, and industrial use. |
| 1948 | 1:555 | Conditions are similar to those visible on earlier photographs. |
| 1956 | 1:555 | A railroad track extends along a portion of the site. Additionally, Arroyo de los Coches no longer extends across the site, but a new creek/channel has been constructed in a direction roughly parallel to the railroad track. Union Pacific has constructed a large rail yard to the east of the site. A new road and new structures are visible on the northern portion of the site. Other conditions are similar to those visible on earlier photographs. |
| 1965 | 1:333 | Much of the northern portion of the site is used as a material/equipment storage yard. Additional structures are visible on the southern portion of the site. Additionally, a wrecking yard is visible in the south-central portion of the Property. Other conditions are similar to those visible on earlier photographs. |
| 1975 | 1:550 | Much of the equipment and materials storage are no longer visible at the northern portion of the site. New structures are visible at the central portion of the site. Other conditions are similar to those visible on earlier photographs. |
| 1982 | 1:690 | Conditions are similar to those visible on earlier photographs |
| 1993 | 1:666 | Much of the northern portion of the site is vacant; structures have been demolished and equipment removed. New small structures are visible at the central portion of the site. Other conditions are similar to those visible on earlier photographs. |
| 1998 | 1:666 | Conditions are similar to those visible on earlier photographs. |
| 2005 | 1:604 | Property use had changed dramatically by 2005. The drainage channel and railroad track are no longer visible at the site. The channel has been relocated to the east of the site. A large structure and parking lot are present at the northern portion of the site. The wrecking yard is no longer visible; it has been replaced by a large structure, several small structures, and a corporation yard. The southern portion of the site includes structures and equipment storage. Other conditions near the site are similar to those depicted on earlier photographs. |
| Notes: ¹ The Southern Pacific Railroad was acquired by the Union Pacific Railroad in 1996. Source: ENGEO Incorporated, 2011. | | |

Topographical Maps

Historical United States Geological Survey topographical maps of the San Jose and Milpitas Quadrangles dating back to 1899 were obtained as part of the Phase I ESA process. The changes that occur to the project site and surroundings are summarized in Table 3.6-4.

Table 3.6-4: Topographical Map Summary

| Year | Scale (inches:feet) | Summary |
|---|---------------------|--|
| 1899 | 1:62,500 | Several structures are depicted on the project site. Arroyo de los Coches extends across the northeast portion of the site. Penitencia Creek and the San Jose Branch of the Southern Pacific Railroad ¹ is depicted to the west. |
| 1953 | 1:24,000 | Calaveras Road is in place to the north of the site. The Union Pacific Railroad tracks are present to the east. The arroyo and the structures are depicted as on the 1899 map. Bothelo Avenue is visible for a portion of its current configuration. Numerous structures are present to the west of the site. |
| 1961 | 1:24,000 | A railroad track extends along a portion of the site. Additionally, Arroyo de los Coches no longer extends across the site, but a new creek/channel has been constructed in a direction roughly parallel to the railroad track onsite. Union Pacific has constructed a large rail yard to the east. Additionally, the configuration of Bothelo Avenue has been modified. Although additional residential, commercial, and industrial development has occurred in the vicinity of the site, other conditions are similar to those depicted on the 1953 map. |
| 1968 | 1:24,000 | Conditions are similar to those depicted on the 1961 map, although Railroad Avenue is depicted to the north of the site. |
| 1973 | 1:24,000 | Conditions are similar. Additional development has occurred to the west. |
| 1980 | 1:24,000 | Conditions are similar. |
| Notes: ¹ The Southern Pacific Railroad was acquired by the Union Pacific Railroad in 1996. Source: ENGeo Incorporated, 2011. | | |

Site Reconnaissance

ENGeo Incorporated personnel performed site reconnaissance in July 2011. The project site was inspected for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The property was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks.

The project site consists of several parcels with distinct uses. The following is a summary of the conditions at each parcel.

APN 086-27-008 (69 Sinnott Lane)

This small parcel, located at the extreme southwest corner of the property, is a vacant lot. A remnant slab associated with a former residential structure is located in the western portion of the parcel. An abandoned driveway and seasonal vegetation constitutes the remainder of the parcel. The parcel is surrounded by a chain-link security fence.

APN 086-27-003 (261 Bothelo Avenue)

This parcel, measuring approximately 2 acres in area, is occupied by Duran and Venables engineering contractors and is maintained as a corporation yard. Numerous equipment implements and materials

are stored in the yard, including heavy construction equipment, construction office trailers, drums, construction materials, and modular storage units. Additionally, several structures are located on the parcel. These include an office, a shop area, storage structures, and an old residence.

Two large, aboveground storage tanks are located on the parcel and are used for the storage of gasoline and diesel fuel. Additionally, a storage room is used for the storage of fresh and used oils, lubricants, cleansers, and other associated materials. The shop structure includes high-bay doors, a main shop floor area, and a mezzanine storage area. Equipment and materials viewed are typical for a mechanical shop and include welding equipment, tools, automotive parts, and lubricant service. Oils (both fresh and waste) were stored in small quantities in a neat manner.

In general, the equipment, and materials at this parcel were stored in a neat and proper manner. Petroleum products and potentially hazardous materials were stored with secondary containment and in a proper manner.

APN 086-27-002 (225 Bothelo Avenue)

This parcel, measuring approximately 2 acres in area, is the southern portion of the Preston Pipelines corporation yard. Numerous equipment implements and materials are stored in the yard, including heavy construction equipment, construction office and recreational trailers, construction materials, and modular storage units. Additionally, an old residence is located in the southeastern corner of the parcel. Construction materials include fill and paving materials and pipeline segments/fittings.

In several areas, housekeeping practices were fair to poor. Although there was no visual evidence of spills or other releases, several petroleum product and hazardous materials containers were not stored with secondary containment or in accordance with other typical practices.

APNs 086-26-029 and 086-26-030 (133 Bothelo Avenue; 80 and 92 Railroad Avenue)

These parcels, measuring a cumulative 9.82 acres in area, include two distinct uses. The northern portion includes a large “high-bay flex” building consisting of concrete tilt-up construction. Several loading bay areas are present. These structures were not entered during the reconnaissance.

The parcel also included the northern portion of the Preston Pipelines corporation yard, a large shop building, the Preston Pipelines offices, a second office structure, and a pressure washer/aboveground tank facility. Numerous equipment implements and materials are stored in the yard, including heavy construction equipment, construction materials, and modular storage units. Construction materials include fill and paving materials and pipeline segments/fittings.

In several areas, housekeeping practices were fair to poor. Although there was no visual evidence of spills or other releases, several petroleum product and hazardous materials containers were not stored with secondary containment or in accordance with other typical practices. A sump at the pressure washer was filled with sediment, and uncontrolled runoff from a faulty pressure washer was observed.

APN 028-23-018 (Bothelo Lane, or 100 Railroad Avenue)

This parcel, measuring approximately 1 acre in area, is located at the extreme northeastern extent of the property. It is used by Devcon Construction as a corporation yard. Numerous equipment implements and materials are stored in the yard, including heavy construction equipment, construction office trailers, drums, construction materials, portable toilets, and modular storage units. It is surrounded by a chain-link security fence.

Site Observations

The site reconnaissance included a survey of hazards and hazardous materials present on the project site. A summary of the findings follows.

Hazardous Substances and Petroleum Products

Numerous materials were observed across the site, including gasoline, diesel, motor oil, fuel additives, grease, hydraulic oil, lubricating oils, paving oils, welding gases, propane, paints, mastic, solvents, anti-freeze, waste oil, and cleansers. These materials were properly stored at 261 Bothelo Avenue; however, in several instances, these materials were stored with poor housekeeping practices at 133 Bothelo Avenue. Although no widespread surface staining or other evidence of unauthorized releases was observed, these materials should be stored and/or removed from the site in a proper manner.

Storage Tanks

An aboveground storage tank complex was observed at the 261 Bothelo Avenue parcel. One tank was used for the storage of gasoline, and one tank was used for the storage of diesel. Both were stored in a proper manner, and no evidence of staining was observed. An aboveground tank was also observed at the 133 Bothelo Avenue parcel. One tank was used for the storage of gasoline, and one tank was used for the storage of diesel. The tanks were stored in a proper manner without evidence of staining.

Odors

No odors indicative of hazardous materials or petroleum material impacts were noted at the time of the reconnaissance.

Pools of Potentially Hazardous Liquid

Other than a minor spill of oil near an inlet at 133 Bothelo Avenue, no pools of potentially hazardous liquid were observed within the property at the time of our reconnaissance.

Drums

Drums were located at or next to secondary containment storage facilities across the project site. Many of these drums were used for storage of fresh or used products, including oils, lubricants, rags, and filters. Numerous empty drums and “trash” drums were observed on the site.

Polychlorinated Biphenyls (PCBs)

PCBs are mixtures of synthetic chemicals with similar chemical structures. PCBs can range from oily liquids to waxy solids. Because of their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications, including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper; and many other applications. More than 1.5 billion pounds of PCBs were manufactured in the United States prior to cessation of production in 1977.

Several pole-mounted transformers are located along Bothelo Avenue. Additionally, a pad-mounted transformer was observed at 80 Railroad Avenue, and one was observed at 133 Bothelo Avenue. No evidence of leakage from the units was noted during our site reconnaissance.

Pits, Ponds and Lagoons

No ponds or lagoons were observed within the property at the time of our reconnaissance. Some secondary containment pits/facilities were observed at various locations on the site. Additionally, a sump facility was observed at the pressure washer/tank facility at 133 Bothelo Avenue.

Stained Soil/Pavement

Other than a minor spill of oil near an inlet at 133 Bothelo Avenue, no significant stained soil or pavement was observed within the project site at the time of site reconnaissance. Minor staining was observed in numerous locations throughout the site.

Stressed Vegetation

No obvious signs of chemically related stressed vegetation were observed on the project site at the time of site reconnaissance.

Solid Waste/Debris

Extensive debris and material storage was observed throughout the project site, primarily within the shop buildings and in external storage areas of the site. Although no widespread surface staining or other evidence of unauthorized releases was observed, these materials should be stored and/or removed from the site in a proper manner.

Wastewater

Several storm drain inlets were observed at the project site during the reconnaissance. With the exception of one inlet at 133 Bothelo Avenue, the inlets were free of staining or evidence of unauthorized discharges or impact. One inlet at 133 Bothelo Avenue featured a fresh oil spill on the surface near the inlet.

Wells

The project site is currently serviced by the municipal water system. No supply wells were observed within the site during our site reconnaissance. However, an old residence at 261 Bothelo Avenue had

been served by a domestic well in the past. It is conceivable that supply well still exist at the project site.

Septic Systems

The site is currently serviced by the municipal sewer system. Some of the parcels have been served by septic systems in the past. It is possible that remnant private septic systems exist at the project site.

Asbestos

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is commonly used as an acoustic insulator, thermal insulation, fireproofing, and in other building materials. Asbestos is made up of microscopic bundles of fibers that may become airborne when asbestos-containing materials are damaged or disturbed. When these fibers get into the air, they may be inhaled into the lungs, where they can cause significant health problems. The California Occupational Health and Safety Administration (CalOSHA) defines asbestos-containing construction materials as any material that contains more than 0.1 percent asbestos by weight.

Older structures located at 261 Bothelo Avenue and 151 Bothelo Avenue may contain asbestos-containing building materials.

Lead

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably in paint. Lead may cause a range of health effects, from behavioral problems and learning disabilities to seizures and death. Primary sources of lead exposure are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated soil. Both the U.S. Environmental Protection Agency and the California Department of Health Services define lead paint as containing a minimum of 0.5 percent by weight. Lead-containing waste materials with a concentration greater than 0.1 percent are considered hazardous waste by California law.

Older structures located at 261 Bothelo Avenue and 151 Bothelo Avenue may contain lead-based paint.

Mercury

Mercury is a naturally occurring element that is found in air, water, and soil that has traditionally been used to make products such as fluorescent lamps, switches, and thermometers. Mercury exposure at high levels can harm the brain, heart, kidneys, lungs, and immune system of people of all ages. Scientific studies have shown that high levels of mercury in the bloodstream of unborn babies and young children may harm the developing nervous system, making a child less able to think and learn.

Structures located onsite may contain equipment (e.g., lamps, switches, thermostats) that contain mercury.

Chlorofluorocarbons (CFCs)

CFCs were developed in the early 1930s and are used in a variety of industrial, commercial, and household applications. These substances are non-toxic, non-flammable, and non-reactive with other chemical compounds. These desirable safety characteristics, along with their stable thermodynamic properties, make them ideal for many applications—as coolants for commercial and home refrigeration units, aerosol propellants, electronic cleaning solvents, and blowing agents. CFCs contribute to depletion of the ozone layer and, consequently, to skin cancer and cataracts. CFCs are also greenhouse gases and contribute to global climate change.

Structures located onsite may contain equipment (e.g., air conditioning equipment) that contains CFCs.

Radon

Radon is a carcinogenic, radioactive gas resulting from the natural breakdown of uranium in soil, rock, and water. Radon gas enters a building through cracks in foundations and walls. Once inside the building, radon decay products may become attached to dust particles and inhaled, or the decayed radioactive particles alone may be inhaled and cause damage to lung tissue. The United States Environmental Protection Agency (EPA) has established a safe radon exposure threshold of 4 picoCuries per liter of air (pCi/L).

The California Department of Health Services indicates that indoor radon tests in the 95035 zip code, in which the project site is located, found that none of 32 samples contained radon concentrations above 4.0 pCi/L. In addition, samples taken from nearby zip codes (94539 – Fremont/Warm Springs; 95132 – San Jose/Berryessa; and 95054 – Santa Clara/Great America) also revealed no samples that exceeded 4.0 pCi/L. The California Department of Public Health classifies zip codes with 0 to 6 percent of samples exceeding 4.0 pCi/L to be areas of low radon potential.

High-Voltage Power Lines

High-voltage power lines emit electromagnetic fields (EMFs), which have been alleged to be a cause of cancer. However, scientific research has never conclusively established a link between EMFs and cancer.

High-voltage power lines are present approximately 3,000 feet east of the project site. For the purposes of comparison, the State requires new schools to be located a minimum of 350 feet from a 500- to 550-kilovolt overhead power line to minimize EMF exposure. Therefore, it can be reasoned that the project site would not be exposed to substantial EMF exposure.

Groundwater

During a water sampling event in March 2011, groundwater was measured at depths from approximately 4 to 5 feet below the ground surface. As noted in the review of previously completed studies, ongoing groundwater monitoring associated with the MTBE plume is occurring at the project

site. The plume extends approximately 180 feet in length from the former UST location. The plume has been characterized and monitored extensively, and a CAP has been prepared for Monitored Natural Attenuation. However, the current Monitored Natural Attenuation program is not projected to achieve cleanup levels until 2027. Further, a proposed groundwater extraction program (pump-and-treat) is not considered an appropriate alternative. A letter indicating case non-compliance was recently recorded by the oversight regulatory agency, Santa Clara County Department of Environmental Health. The letter specifically pointed out that a requested CAP was significantly overdue. The groundwater plume is considered a recognized environmental condition.

Phase II ESA

As a result of the data compiled in the Phase I ESA, a Phase II ESA, dated August 22, 2011, was prepared by ENGEO Incorporated to assess the extent of the MTBE plume. The Phase II ESA included soil, groundwater, and soil vapor sampling. The following discusses the results of the Phase II ESA.

A surface and subsurface soil sampling study was performed to assess fill materials and potential areas of soil impact in areas identified in the Phase I ESA, including the former wrecking yard, fill materials within the former creek alignment, and other points of concern. A total of 12 soil borings were advanced in select locations across the project site to approximate depths ranging between 4 and 12 feet below ground surface. Groundwater was encountered in two borings and groundwater samples were collected from these locations. Additionally, a soil vapor sampling program was performed. Soil vapor samples were collected from a total of 10 temporary soil vapor sampling points situated across the project site. Details of the sampling program follow.

Soil Sampling

Surface and subsurface samples were collected from a variety of locations across the project site. Locations of sample sites are shown in Figure 2 in Appendix D. Methods used for the soil boring retrieval and testing are also described in Appendix D. Several target analytes were detected in both surface and subsurface soil samples. In general, these concentrations were below Environmental Screening Levels (ESLs) established by the San Francisco RWQCB assuming a residential land use scenario, as well as the California Human Health Screening Levels (CHHSLs) established by the California Environmental Protection Agency (CalEPA). Trace VOC, TPH-gasoline, and TPH-diesel concentrations were detected in several samples below ESLs and CHHSLs. TPH-motor oil concentrations were detected in most soil samples. Three samples exhibited TPH-motor oil concentrations of 1,100, 550, and 12,000 mg/kg, which exceed the respective ESL of 370 mg/kg.

Several samples exhibited lead, cadmium, and/or nickel concentrations in excess of ESLs and CHHSLs; however, with the exception of five samples, the metals are within the expected range of background concentrations. Additionally, several soil samples also exhibited detectable polycyclic aromatic hydrocarbon (PAH) concentrations. As with other analytes, these concentrations were below respective screening levels; however, some samples did exhibit elevated PAH concentrations.

A single sample exhibited a 2-methylnaphthalene concentration of 10,000 µg/kg and a benzo(a)pyrene concentration of 230 µg/kg. Additionally, a single sample exhibited a fluorene concentration of 10,000 µg/kg. These concentrations exceed respective ESLs. The laboratory results and a summary of the soil sample analysis are presented in Appendix D.

Groundwater Sampling

Groundwater was encountered in borings CS-1 and CS-2. Methods used for groundwater sampling are described in Appendix D. Although limited samples were collected, only one target analyte was detected. Diisopropyl ether (DIPE), a fuel oxygenate, was detected in sample CS-1 at a concentration of 3.2 micrograms per liter (µg/L). This trace concentration of DIPE as well as the absence of fuel range hydrocarbons and other oxygenates (including MTBE) suggest that widespread groundwater impact outside the identified MTBE plume is not present at the project site. The laboratory results and a summary of the groundwater sample analysis are presented in Appendix D.

Soil Vapor Sampling

A total of 10 soil vapor samples were collected from temporary sampling well points installed in locations situated across the project site as shown in Figure 2 (Appendix D). Samples were collected from a depth of 5 feet below the ground surface.

Several VOCs were detected within soil vapor samples. With the exception of TPH-gasoline, all detected analytes were below respective ESLs assuming a residential land use scenario. Three samples exhibited TPH-gasoline concentrations of 34,000, 44,000, and 18,000 micrograms per cubic meter (µg/m³), which exceed the respective ESL of 10,000 µg/m.

Additionally, although none of the detected benzene concentrations exceed the respective ESL of 84 µg/m³, four samples exhibited concentrations in excess of the respective CHHSL of 36.2 µg/m³ assuming a residential land use scenario. The laboratory results and summary of the soil vapor analysis are provided in Appendix D.

3.6.3 - Regulatory Framework

Federal

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

The 1984 RCRA amendments provided the framework for a regulatory program designed to prevent releases from USTs. The program establishes tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to

ensure that the stored material will not corrode the tanks. Owners and operators of USTs had until December 1998 to meet the new tank standards. As of 2001, an estimated 85 percent of USTs were in compliance with the required standards.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The act was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous substances releases. The act deals with environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

State

California Health and Safety Code

The California Environmental Protection Agency has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Sections 25531, et seq. incorporate the requirements of Superfund Amendments and Reauthorization Act and the Clean Air Act as they pertain to hazardous materials. Health and Safety Code Section 25534 directs facility owners storing or handling acutely hazardous materials in reportable quantities to develop a Risk Management Plan. The plan must be submitted to the appropriate local authorities, the designated local administering agency, and the EPA for review and approval.

CEQA and the Cortese List

The Cortese List (Hazardous Waste and Substances Site List) is a planning document used by the state, local agencies, and developers to comply with CEQA requirements to consider Government Code Section 5962.5 in evaluating proposed development projects. Section 65962.5 states that

The list should contain all hazardous waste facilities subject to corrective action , all hazardous waste property or border zone property designations, all information received on hazardous waste disposals on public land, all hazardous substance release sites listed pursuant to Government Code Section 25356, and all sites that were included in the former Abandonment Site Assessment Program.

Local

City of Milpitas

General Plan

The General Plan establishes the following policy related to hazards and hazardous materials applicable to the proposed project City of Milpitas General Plan.

- **Policy 4.h-I-1:** Implement measures specified in the City’s Source Reduction and Recycling Element and the City’s Household Hazardous Waste Element.

County of Santa Clara

The Santa Clara County Department of Environmental Health’s Hazardous Materials Compliance Division is the Certified Unified Program Agency for most of the County, with the exception of Gilroy, Santa Clara, and Sunnyvale. Certified Unified Program Agencies are entities certified by the California Environmental Protection Agency to administer the following six hazardous materials program areas:

- Hazardous Materials Release Response Plans and Inventories (i.e., Business Plans)
- California Accidental Release Prevention Program
- UST Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control and Countermeasure Plans
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (i.e., Tiered Permit) Programs
- California Fire Code: Hazardous Materials Management Plans and Hazardous Materials Inventory Statements

3.6.4 - Methodology

ENGEO Incorporated prepared a Phase I ESA to document potential hazardous conditions on the project site and surrounding land uses. The Phase I ESA was prepared in accordance with the American Society for Testing and Materials “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-05.” The Phase I ESA consisted of a review of local, state, and federal regulatory agency lists as compiled by EDR; a review of historic aerial photographs and topographic maps; a review of previously prepared reports regarding hazardous conditions on the site; and site reconnaissance. ENGEO Incorporated personnel performed site reconnaissance of the project site on July 5, 2011 to document existing conditions and potential environmental hazards.

3.6.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hazards and hazardous materials impacts resulting from the implementation of the proposed project would be considered significant if the project would:

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

- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Refer to Section 7, Effects Found Not To Be Significant.)
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working the project area? (Refer to Section 7, Effects Found Not To Be Significant.)
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (Refer to Section 7, Effects Found Not To Be Significant.)
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (Refer to Section 7, Effects Found Not To Be Significant.)

3.6.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Past and Present Site Usage

Impact HAZ-1: **The development of the proposed project may result in the exposure of persons or the environment to hazardous materials associated with past and present uses of the project site.**

Impact Analysis

This impact address the potential for the development of the proposed project to expose persons of the environment to hazardous materials associated with past and present uses of the project site.

The Phase I ESA and Phase II ESA identified the following issues associated with past and present uses of the project site that could result in the potential exposure of persons and environment to hazardous materials: contaminated soil, contaminated groundwater, contaminated soil vapor, asbestos-, mercury-, and CFC-containing materials, and lead paint.

Soils

The Phase II ESA indicated that elevated concentrations of several metallic (including lead, cadmium, and nickel), petroleum hydrocarbon, and PAH target analytes were identified in surface and subsurface soil samples; in many cases, these concentrations exceeded ESLs established by the San Francisco Bay RWQCB, and CHHSLs established by the Cal/EPA for a residential land use scenario such as the proposed project. These impacts are random in distribution and likely represent isolated, limited volumes of impact. Although widespread soil impact does not appear to be present at the project site, discrete areas of soil impact necessitating mitigation should be anticipated near these elevated concentrations. A likely remediation scenario would include excavation and subsequent transport and disposal. Since the extent of these impacts are unknown, the impacted volumes could range from less than 10 to several hundred cubic yards of soil impact at each location. Additionally, although much of the soil would meet the criteria for disposal in non-hazardous waste landfills, some small discrete volume could be expected to be classified as hazardous waste, necessitating disposal at a hazardous waste landfill. Additional soil characterization would be required to approximate the impacted soil volume and further characterize the corresponding volumes of waste classifications. As such, mitigation is proposed to ensure remediation of contaminated soils. Implementation of the mitigation would reduce impacts to a less than significant level.

Groundwater

An MTBE groundwater plume is present at the project site. As noted in the Phase II ESA, a CAP was completed for the property on August 1, 2011. The CAP identified an *in situ* oxidation remediation program consisting of ozone/hydrogen peroxide (O_3/H_2O_2) to mitigate the MTBE impact in shallow groundwater beneath the project site. ENGEO Incorporated opined that the use of *in situ* oxidation to mitigate the plume is an appropriate technology. Further, as presented in the CAP, the County of Santa Clara Department of Environmental Health previously indicated that cleanup criteria at the site are to be based on the secondary maximum contaminant level of MTBE ($5.0 \mu\text{g/L}$), based on a designated beneficial use. However, total dissolved solids (TDS) levels measured at the project site have been nearly double the level to be considered of beneficial use. Therefore, the MTBE secondary maximum contaminant level is not considered an appropriate cleanup goal. As such, the MTBE cleanup criteria should be reconsidered as discussed in the CAP.

The CAP also suggests that closure may be achieved within 1 year, occurring in August 2012. The CAP does state that this goal is very aggressive, requiring system approval by October 2012, six months of system operation, and closure following three months of groundwater verification monitoring; acknowledging that these steps may require more time. However, all of these activities and time required for milestones will very likely require a much longer timeframe. For instance, it should be expected that 12 to 18 months of groundwater verification monitoring would be necessary. A more likely date of closure may be expected between June 2013 and December 2013. Mitigation is proposed to ensure that appropriate action is taken to remediate the MTBE groundwater plume.

Soil Vapor

Soil vapor contamination, in the form of TPH-gasoline concentrations, were within samples SG-1 (near the southwest corner of the high-bay flex building), SG-8 (at the center of the project site near the MTBE plume), and SG-9 (in the northwest corner of the wrecking yard). Although the corresponding impact source cannot be confirmed, it is likely that the elevated soil vapor concentrations are emanating from the MTBE/petroleum hydrocarbon plume at the project site. The detected concentrations are sufficient to potentially necessitate remediation and/or engineering/institutional controls to allow for residential development. The detected soil vapor concentrations, should they be emanating from the plume, would be expected to attenuate following *in situ* oxidation application. The elevated vapor concentrations may also have emanated from localized soil and/or groundwater impacts at or near the respective sample locations. Additional characterization may be performed to determine the extent of these impacts. If impact is present, remedial methods may include excavation, *in situ* oxidation (near the area of detected vapor), or soil vapor extraction. Alternatively, engineering controls such as soil vapor barriers and/or subsurface venting systems may be considered, depending on the type of residential structures proposed for the project site.

Hazardous Materials Storage

Numerous materials were observed across the site, including solid waste, gasoline, diesel, motor oil, fuel additives, grease, hydraulic oil, lubricating oils, paving oils, welding gases, propane, paints, mastic, solvents, anti-freeze, waste oil, drums, and cleansers. A single oil spill was noted at one storm drain inlet at 133 Bothelo Avenue. As such, mitigation is proposed to ensure that all stored hazardous materials and vessels are properly removed prior to demolition activities and that no other spills are present. The implementation of this mitigation would reduce potentially significant impacts to a level of less than significant.

Asbestos-, Mercury-, and CFC-Containing Materials and Lead-Based Paint

Older structures located at 261 Bothelo Avenue and 151 Bothelo Avenue may contain asbestos-containing building materials and lead-based paint in concentrations that meet regulatory standards for hazardous waste. All onsite structures may contain equipment (e.g., lamps, switches, thermostats) that contain mercury. In addition, onsite structures may contain equipment (e.g., air conditioning equipment) that contains CFCs. Therefore, mitigation is proposed requiring that these materials be properly removed and disposed of by a certified contractor prior to demolition activities. The implementation of this mitigation measure would reduce impacts to a level of less than significant.

Summary

The project site contains contaminated soil, groundwater, and soil vapor resulting from past uses of the project site. Implementation of proposed mitigation would remediate these conditions and reduce impacts to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

- MM HAZ-1a** Prior to the issuance of building permits, a soil characterization shall be completed to identify areas of contaminated soil within the project site. The project applicant shall implement excavation and subsequent transport and disposal of identified contaminated soils in accordance with local, state, and federal regulations. Resulting soil conditions shall be tested to ensure all identified contaminants are properly remediated and do not exceed the applicable screening levels established by the appropriate regulatory agencies.
- MM HAZ-1b** Prior to the issuance of building permits, the project applicant shall complete groundwater remediation efforts as indicated in the current Corrective Action Plan, including the reconsideration of the MTBE groundwater cleanup criteria, in coordination with the Santa Clara County Department of Environmental Health. Groundwater contamination levels must conform to the applicable screening levels established by the appropriate regulatory agencies.
- MM HAZ-1c** Upon completion of soil and groundwater remediation efforts, and prior to the issuance of building permits, the project applicant shall perform additional characterization to determine the extent of contaminated soil vapor. Should soil contamination still be present, the project applicant shall implement remedial methods, which may include, but not be limited to excavation, *in situ* oxidation, or soil vapor extraction to ensure contamination levels are within the applicable screening levels established by the appropriate regulatory agencies.
- MM HAZ-1d** Prior to demolition of any structures located on the project site that was constructed prior to 1978, the project applicant shall retain a certified contractor to remove and properly dispose of all hazardous materials located on the project site associated with current onsite industrial land uses. During removal, any spills shall be noted and remediated in accordance with standards maintained by the Santa Clara County Department of Environmental Health. All removal, disposal, and remediation activities shall be completed prior to the commencement of demolition.
- MM HAZ-1e** Prior to demolition of any structures located on the project site that was constructed prior to 1978, the project applicant shall retain a certified contractor to remove and properly dispose of all materials containing asbestos, mercury, CFCs, and lead paint in accordance with federal and state law. All removal and disposal activities shall be completed prior to the commencement of demolition.

in accordance with federal and state law. All removal and disposal activities shall be completed prior to the commencement of demolition.

Level of Significance After Mitigation

Less than significant impact.

Risk of Upset

Impact HAZ-2: **The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions.**

Impact Analysis

This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Project Use of Hazardous Materials

Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, Mitigation Measure HYD-1 requires the project applicant to implement a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site. Therefore, no significant impacts would occur during construction activities.

As a residential development, operation of the proposed project would not result in the use hazardous materials and no significant impacts would occur.

Pipelines and Hazardous Materials

The Milpitas Fire Department expressed concern regarding nearby underground pipelines and the transport of hazardous materials in the adjacent Milpitas Yard. As such, the potential exists for risk of upset associated with these facilities.

Pipelines

Underground pipelines that convey natural gas, petroleum products, and other potentially hazardous materials are common in urban areas—particularly along railroad corridors. The Pipeline and Hazardous Materials Safety Administration and the California Public Utilities Commission both regulate pipeline safety. These agencies have established a number of requirements intended to prevent mishaps, including the 811 notification system for earthwork activities that occur near pipelines and prohibitions on developing structures or significant improvements (such as walls) above underground pipelines. Additionally, pipeline operators monitor their pipelines using a Supervisory Control and Data Acquisition system that allows them to detect irregularities such as sudden increases

or decreases in pressure, and are required to regularly inspect their pipelines for signs of potential failure. Collectively, these measures serve to reduce the likelihood for risk of upset associated with catastrophic rupture of a hazardous materials pipeline that would occur in the project vicinity.

Rail Transport of Hazardous Materials

The Union Pacific Railroad Milpitas Yard is primarily used for storing and sorting of “auto racks” (rail cars used for transport of automobiles) associated with the adjacent Automobile Distribution Facility. These types of rail cars typically do not transport large quantities of hazardous materials. The yard is also used for storing and sorting of other types of freight cars that serve local industries.

The United States Pipeline and Hazardous Materials Safety Administration indicates that two reportable hazardous materials incidents have occurred in or near the rail yard since January 1, 2001:

- **September 13, 2007:** An employee detected a chemical odor near a tank car carrying ethanol isopropanol. The car was inspected and loose bolts were detected. The bolts were tightened. No evidence of a chemical release was observed. No emergency responders were summoned and no evacuation occurred.
- **August 27, 2009:** The “O” rings associated with a pressure relief valve on a tank car carrying ethanol isopropanol failed, resulting in the release of 1 liquid gallon of the substance. Police and fire crews responded to the incident. Employees at the facility were evacuated for approximately 4 hours; however, neighboring land uses were not.

As indicated above, during the past decade, there has been only one incident involving the release of a hazardous materials in the rail yard. That incident involved a very small release of a hazardous substance and, thus, was not classified as “serious” by the United States Pipeline and Hazardous Materials Safety Administration. Furthermore, surrounding land uses were not evacuated, signifying that emergency responders did not consider the general public to be at risk. This serves to indicate that the frequency and severity of incidents in the rail yard is not considered to be unusually high such that residents of the project could be reasonably be expected to be at risk of hazardous materials exposure.

Moreover, the Federal Railroad Administration and the California Public Utilities Commission regulate railroad safety, while the United States Department of Transportation regulates transport of hazardous materials by rail. Both the Federal Railroad Administration and California Public Utilities Commission require that railroad facilities be regularly inspected for defects (such as broken rails). The United States Department of Transportation establishes minimum safety specifications for rail cars (tank cars, et al.) that haul hazardous materials such as head shields, jackets, thermal protection, and valve protection systems. All of these measures are intended to provide protection for rail cars in the event of a derailment in order to prevent the loss of lading. Collectively, these measures serve to reduce the likelihood for risk of upset associated with a catastrophic rail accident in the project vicinity.

Impacts would be less than significant.

Conclusion

In summary, the proposed project would not potentially create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through the reasonably foreseeable upset and accident conditions. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Emergency Response and Evacuation

Impact HAZ-3: The proposed project would not interfere with emergency response or evacuation.

Impact Analysis

This impact addresses potential impacts to emergency response or evacuation of the project site.

Citygate Associates reviewed the proposed project to determine if the project site could be adequately served with adequate emergency response and evacuation. The complete analysis is provided in Impact PSR-1 in Section 3.10, Public Services and Recreation. A summary of Citygate’s findings is provided below.

The Milpitas Fire Department operates four fire stations, which range from 0.8 mile to 3.1 miles from the project site; refer to Exhibit 3.10-1 in Section 3.10, Public Services and Recreation. At a constant speed of 35 miles per hour, a fire unit can travel 2.33 miles in 4 minutes. At a constant speed of 25 miles per hour, a fire unit can travel 1.66 miles.

Station No. 1 is within 1.5 miles or well under 4 minutes travel time to the project. Stations No. 3 and No. 4 are within 2.5 miles driving distance, which is also within a best practices recommendation of 8 minutes travel for follow-on units to serious emergencies. Milpitas Fire Station No. 1 also houses the Department’s ladder truck, so it also is within 2.5 miles of the project, in accordance with the Insurance Service Office classification system.

There are three at-grade railroad crossings that can impede fire apparatus travel. Blocking all three at-grade crossings at once on a single-track line means a single train has to be stalled and be 1.27 miles (6,730 feet) long or about 100 to 130 cars, depending on the type of cargo cars used. However, even if a long train blocked all three at-grade crossings near the project site, all four fire stations can still reach the Great Mall parking lot and then north through the parking lot to West Curtis Avenue

without encountering an at-grade train crossing; refer to Exhibits 3.10-2 through 3.10-5 in Section 3.10, Public Services and Recreation. Therefore, while the response routes to the site could be interrupted, there is an alternate path.

In published fire service deployment best practice recommendations, there are no suggested time requirements for an Emergency Vehicle Access to meet. As an alternate route, it is commonly understood that access is compromised by distance, terrain or closed gates to be opened. In any event, the response time will be delayed.

Therefore, an alternate emergency vehicle route to the project does exist, using mostly public streets, which also means residents in the project could be easily evacuated over the same alternate response routes. The use of Emergency Vehicle Access routing, while it does cause delays, only slows response times to the project area from better than desired, to at or slightly past the City's goal point for first due and multiple unit responses.

Given the above findings, Citygate Associates does not see a response route or time issue that would prevent the project from being considered under the City's adopted Fire Code, General Plan, Development Policies or other national best practice publications for fire service deployment.

While no adopted emergency response or evacuation plans cover the project site, Milpitas General Plan Policy 5.c-I-1 requires a standard fire department response time of 4 minutes or less for all urban service areas. Citygate Associates reviewed the proposed project to address fire department response times at the project and concluded that response routes to the site could be interrupted by at-grade crossings of the Union Pacific Railroad. Evacuation of the project site could also be interrupted by at-grade railroad crossings. However, Citygate Associates noted that, while the response/evacuation routes to the project site could be interrupted by trains, an alternate path is available via the Great Mall parking lot and Curtis Way. Evacuation of the site could also utilize this alternate path. Furthermore, as noted in Impact PSR-1, as long as the project adheres to the appropriate Building, Fire, and City Development Codes, such as the installation of fire sprinklers, there would be minimal impacts to fire and emergency medical service access to the proposed residences. As such, the project site would not interfere with emergency response or evacuation. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.7 - Hydrology and Water Quality

3.7.1 - Introduction

This section describes the existing hydrology and water quality setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information provided by the Preston Pipeline Hydrology and Water Quality Review prepared by Schaaf & Wheeler on April 3, 2012, and included in this EIR as Appendix E. Additional information was provided by the City of Milpitas General Plan, the Santa Clara County General Plan, and the Western Regional Climate Center.

3.7.2 - Environmental Setting

Climate

Milpitas is characterized by a Mediterranean climate, with warm summers, mild winters, and low precipitation. Temperatures in the Milpitas area range from an average high of 80.6 degrees Fahrenheit (°F) in July and August to an average low of 41.4°F in January. Rainfall averages 12.48 inches annually. General meteorological data for the Milpitas area, as measured at the San Jose International Airport weather station, are presented in Table 3.7-1.

Table 3.7-1: Milpitas Meteorological Summary

| Month | Temperature (°F) | | Precipitation (inches) |
|---|------------------|-------------|------------------------|
| | Average High | Average Low | |
| January | 59.0 | 41.4 | 2.31 |
| February | 61.3 | 43.5 | 2.89 |
| March | 65.4 | 45.6 | 1.77 |
| April | 67.5 | 47.3 | 1.14 |
| May | 73.4 | 51.7 | 0.30 |
| June | 78.2 | 55.5 | 0.16 |
| July | 80.4 | 57.9 | 0.00 |
| August | 80.6 | 58.1 | 0.01 |
| September | 80.6 | 57.1 | 0.05 |
| October | 74.3 | 52.5 | 0.70 |
| November | 65.4 | 45.9 | 1.11 |
| December | 59.2 | 41.7 | 2.09 |
| Annual Average | 70.4 | 49.9 | 12.48 |
| Note: Measurements recorded between 1998 and 2012. Source: Western Regional Climate Center, 2012. | | | |

Surface Water Bodies

Surface water includes streams, drainage channels, ponds, lakes, and other water on the surface of the land. Rainfall is the source of most surface water in Milpitas. Rainfall occurs during a short season in relatively intense storms. The amount of water flowing on the surface depends on how much water soaks into the ground, which in turn is dependent on the characteristics of the soil and the amount of land made impermeable by development (roads, roofs, parking lots, etc.). These impervious surface areas, generally associated with urbanization, prevent water from infiltrating into the soil, resulting in stormwater runoff, which can become polluted as it flows over urbanized areas. This untreated runoff typically enters a storm drain system and is conveyed to local waterways and eventually to the San Francisco Bay. Below is a description of the surface water bodies in the project vicinity.

San Francisco Bay

San Francisco Bay is the most prominent water feature in the nine-county San Francisco Bay Area region and covers approximately 1,600 square miles. The bay is the largest estuary on the west coast of North America and drains approximately 40 percent of the land area of California. The southern portion of the bay is located approximately 1 mile west of the project site.

Coyote Creek

Coyote Creek is located approximately 1 mile to the west of the project site. Coyote Creek spans the length of the Santa Clara Valley, originating at Anderson Reservoir near Morgan Hill and emptying into San Francisco Bay. The Coyote Creek watershed encompasses 350 square miles and drains Milpitas—including the project area, the eastern portion of San Jose, and the Coyote Valley. Downstream of the project site, Coyote Creek splits into “New” and “Old” branches. New Coyote Creek is a man-made channel that skirts the south side of the Newby Island Sanitary Landfill, while Old Coyote Creek meanders around the east and north sides of the landfill.

Ford Creek

Ford Creek is the nearest waterway to the project site, located between the project site and the Milpitas Railroad Yard to the east. Ford Creek was realigned to its current position along the eastern boundary of the project site in 1999.

Ford Creek is maintained by the City of Milpitas and has a drainage area of approximately 298 acres and a 100-year discharge of 175 cubic feet per second (cfs) at the Calaveras Boulevard crossing. Ford Creek is contained within a pipe upstream (south) of the project site and consists of an open channel along the project’s eastern boundary. North of the project site, Ford Creek enters a set of dual 48-inch culverts beneath the Railroad Avenue cul-de-sac and Calaveras Boulevard. Excessive sedimentation has occurred at the twin culverts which causes flooding upstream of Calaveras Boulevard. Downstream of the twin culverts, Ford Creek is an open channel piped beneath two driveways before its confluence with Wrigley Creek to form Ford-Wrigley Creek. Wrigley-Ford Creek discharges into Berryessa Creek and eventually drains to Coyote Creek and the San Francisco Bay.

Drainage

The existing 15.4-acre site is within the tributary basin of Ford Creek. Elevations range from 17 feet to 22 feet with mild slopes of approximately 2 percent. The site can be divided into two drainage basins defined by areas contributing to the Union Pacific Railroad conveyance in the northwest, and Ford Creek outfalls to the east. Onsite lands in the northwest sub-basin total approximately 3.7 acres and are sloped to the west. Stormwater from this drainage basin is conveyed overland parallel to the Union Pacific railroad and enter a City of Milpitas Owned underground drainage system approximately 190 feet north of the site. Runoff is piped to the east in a 24-inch reinforced concrete pipe before it outlets to Ford Creek. The eastern and southern portions of the site are sloped to the east and discharge to one of seven Ford Creek outfalls. Outfalls range in diameter from 30 to 36 inches. Drainage from the 14.4-acre area sub-basin is conveyed to Ford Creek either by overland flow or through a limited onsite pipe network.

The site is located within Basin “F1” of the draft Milpitas Storm Drain Master Plan. The basin is characterized as heavy industrial land use and encompasses the tributary drainage area of Ford Creek. The project site makes up approximately 5 percent of the contributing drainage area.

Table 3.7-2 provides the project site’s existing stormwater flows for each onsite sub-basin under 2-, 10-, and 100-year storm events.

Table 3.7-2: Existing Peak Stormwater Flow Rates

| Sub-Basin | Existing Peak Stormwater Flow Rates (cfs) | | |
|---|---|---------------|----------------|
| | 2-Year Storm | 10-Year Storm | 100-Year Storm |
| Railroad (Northwest) | 2 | 4 | 6 |
| Ford Creek (East) | 5 | 9 | 12 |
| Note: Cfs = cubic feet per second Source: Schaaf & Wheeler, 2012. | | | |

Surface Water Quality

South San Francisco Bay and Coyote Creek are listed on the United States Environmental Protection Agency (EPA) 303(d) list of impaired water bodies. Table 3.7-3 summarizes the pollutants and stressors that impair each water body. As shown in the table, Total Maximum Daily Load (TMDL) completion dates for the various pollutants range from 2005 (high priority) to 2021 (low priority).

Table 3.7-3: Impaired Water Body Summary

| Water Body | Pollutant/Stressor | Source(s) | TMDL |
|---|--------------------|---|-----------------|
| | | | Completion Date |
| South San Francisco Bay | Chlordane | Nonpoint source | 2008 |
| | DDT | Nonpoint source | 2008 |
| | Dieldrin | Nonpoint source | 2008 |
| | Dioxin Compounds | Atmospheric deposition | 2019 |
| | Invasive Species | Ballast water | 2019 |
| | Furan Compounds | Atmospheric deposition | 2019 |
| | Mercury | Industrial point source; municipal point source; resource extraction; atmospheric deposition; natural source; nonpoint source | 2006 |
| | PCBs (non-dioxin) | Nonpoint source | 2006 |
| | Dioxin-like PCBs | Nonpoint source | 2019 |
| | Selenium | Agriculture; domestic use of groundwater | 2019 |
| | Trash | Urban runoff/Storm sewers | 2021 |
| Coyote Creek | Diazinon | Urban runoff/Storm sewers | 2021 |
| | Trash | Urban runoff/Storm sewers/Illegal dumping | 2021 |
| Notes: TMDL = Total Maximum Daily Load DDT = Dichloro-Diphenyl-Trichloroethane PCBs = polychlorinated biphenyls Source: San Francisco Bay Regional Water Quality Control Board, 2010. | | | |

Groundwater

Groundwater information for the Santa Clara Valley subbasin was obtained from the California Department of Water Resources Bulletin 118. Below is a summary of the relevant information.

Santa Clara County is located at the southern tip of the San Francisco Bay and is divided into three interconnected subbasins that transmit, filter, and store water. It encompasses approximately 1,300 square miles, making it the largest of the nine Bay Area counties. Groundwater is primarily located in unconsolidated gravel, sand, silt, and clay within a series of convergent alluvial fans of streams. Groundwater is transported through the gravelly alluvial fan into the deeper confined aquifer of the central part of the valley. The County's subbasins filter water, making it suitable for drinking and for municipal, industrial, and agricultural uses. In general, the groundwater conditions throughout the County are very good.

Basin Boundaries and Hydrology

The project site is located within the Santa Clara Valley subbasin in the northern part of the County. The Santa Clara Valley subbasin extends from Coyote Narrows at Metcalf Road in south San Jose to

the County's northern boundary. The Diablo Range bounds the subbasin on the east and the Santa Cruz Mountains on the west. These two ranges converge at the Coyote Narrows to form the southern limits of the subbasin. The Santa Clara Valley subbasin is approximately 22 miles long and 15 miles wide, with a surface area of 225 square miles. Although infiltration varies over the basin, the average annual natural infiltration volume is 0.24 acre-foot per acre of surface area. A confined zone within the northern areas of the subbasin is overlaid with a series of clay layers, resulting in a low permeability zone. The southern area is an unconfined zone, or forebay, where the clay layer does not restrict recharge.

Within the Santa Clara sub-basin, the site is located within the Santa Clara Plain. Recharge of the Santa Clara Plain is achieved partially through recharge activities of the Santa Clara Valley Water District (SCVWD) and through natural recharge. SCVWD activities include controlled in stream recharge, spreader dams, and off-stream recharge facilities such as gravel pits.

Groundwater Level Trends

Groundwater levels fluctuate annually in response to extraction, recharge from precipitation, stream percolation, infiltration of applied irrigation water, and subsurface inflow and outflow. Levels are usually highest in the spring and lowest during the summer months. Longer-term fluctuations occur when discharge exceeds or is less than recharge over several seasons. Precipitation, applied water, rivers, and local creeks recharge groundwater in Santa Clara County. Groundwater from Coyote Creek, the Guadalupe River, and Los Gatos Creek generally flows northward and discharges into the San Francisco Bay.

Groundwater Storage

The Santa Clara Valley subbasin has a vast storage capacity supplying as much as half of the annual water needs of the County. The operational storage capacity of the Santa Clara Valley subbasin, based on an area defined by the SCVWD, is estimated to be 350,000 acre-feet. Basin pumping between 2001 and 2009 ranged from 82,600 acre-feet to 115,400 acre-feet.

Groundwater Quality

Santa Clara County reserves of groundwater occur among three subbasins: Santa Clara Valley, Llagas, and Hollister Areas. Groundwater quality samples have been collected in the County since the 1940s. High mineral salt concentrations have been identified in the upper aquifer zone along San Francisco Bay, the lower aquifer zone underlying Palo Alto, and the southern portion of the forebay area of the Santa Clara Valley subbasin. High nitrate concentrations are also sporadically measured in the Santa Clara Valley subbasin. However, because of the SCVWD groundwater protection programs—which include well permitting, well destruction, and leaking underground storage tank programs—the groundwater basin has been effectively protected against contamination. Additionally, the drinking water standards are met at public water supply wells without the use of treatment methods. As such, the overall quality of the Santa Clara Valley subbasin is high.

Project Site Groundwater

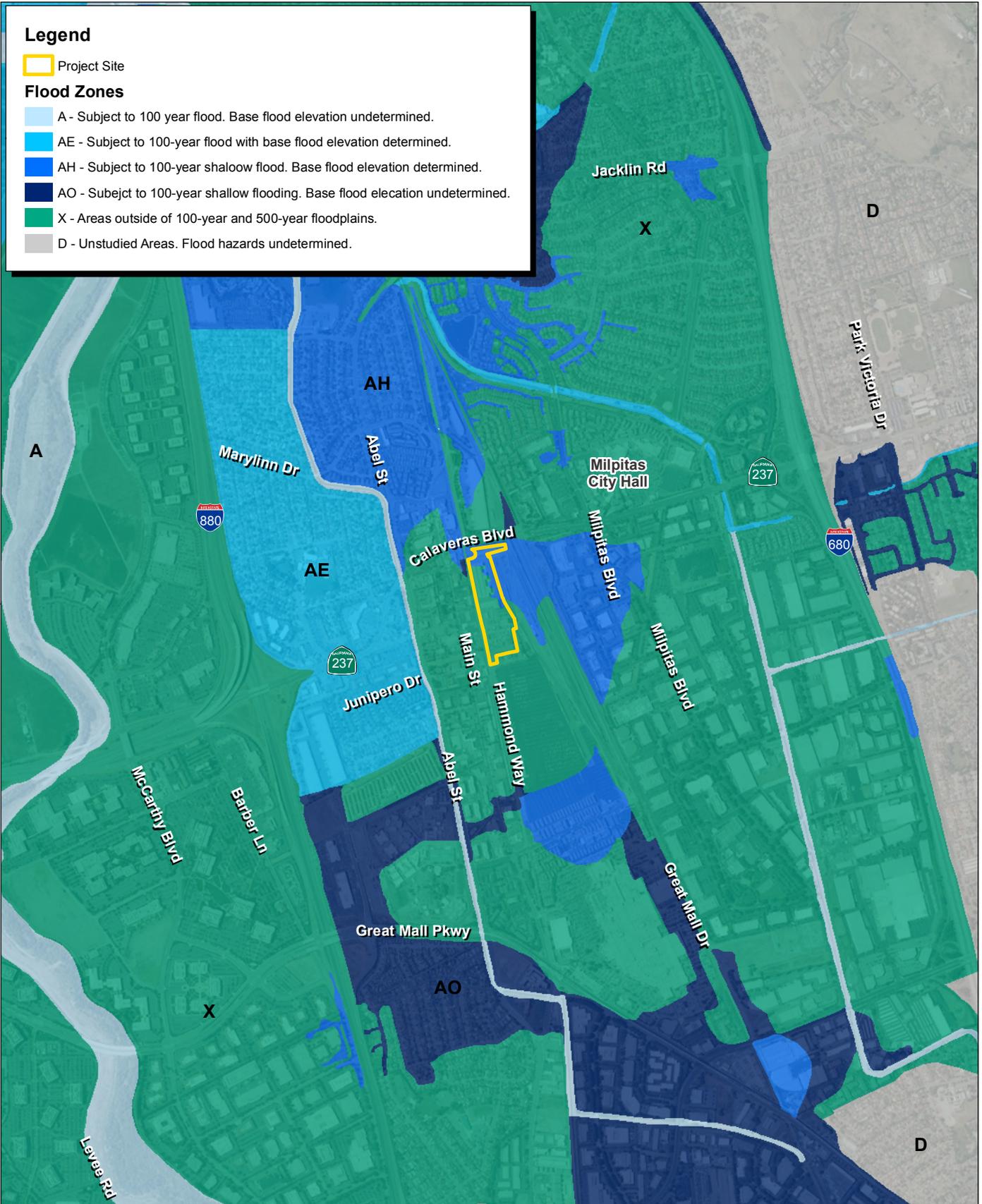
According to information provided in the Phase II ESA (Appendix E), groundwater at the project site exists in confined conditions and has been encountered at depths between 5 and 15 feet below the ground surface. As a result of the previous presence of gasoline underground storage tanks, a methyl tertiary butyl ether (MTBE) groundwater plume is located within the project site. Remediation efforts are currently underway to mitigate the groundwater plume.

Flood Plain Mapping

As depicted on the Federal Emergency Management Agency flood insurance rate map (FIRM) number 06085C0067H, dated May 18, 2009, the project site is located in special flood hazard area Zones X and AH. The Zone X designation is for areas of 0.2 percent (500-year) chance flooding and areas of 1 percent (100-year) chance flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile. Zone X is considered outside of the designated 100-year special flood hazard area. Zone AH identifies an area of ponded flood depths of 1 to 3 feet. Exhibit 3.7-1 depicts the flood hazard area designations in the project vicinity.

Portions of the project are within an AH Zone identified by the FIRM with a ponded elevation (i.e. base flood elevation) of 23 feet (North American Vertical Datum [NAVD88]). This base flood elevation appears to be a datum error based on an earlier conversion from the National Geodetic Vertical Datum (NGVD29) to NAVD88, and should in fact be 20 feet NAVD88 based on the datum conversion of 2.85 feet used in the currently effective Flood Insurance Study. The previously effective FEMA map, dated 1982, shows an AH Zone of elevation 17 feet NGVD29 (20 feet NAVD88). Other than datum conversion, there are no changes to the zone determinations, delineations, or base flood elevations between the previous and current map. It appears that the conversion between NGVD and NAVD was incorrectly performed twice for this specific Zone AH ponded area.

In addition to the FEMA flood designations, a study of Ford and Ford-Wrigley Creeks performed by Schaaf & Wheeler in 2010 describes known flooding issues regarding Ford Creek upstream of Calaveras Boulevard. A hydraulic model utilizing Army Corps of Engineers HEC-RAS software was created as part of the Wrigley-Ford study to evaluate flooding and channel capacity. Because of sedimentation and channel roughness from excessive vegetation growth, the 48-inch dual culverts beneath Railroad Avenue and Calaveras Boulevard do not provide sufficient capacity and cause spilling upstream. A dredging project was designed by the City of Milpitas based on the Wrigley-Ford Creek study that involves the regular removal of sediment, dredging of Ford Creek to create a uniformly sloped channel, and removal of invasive vegetation. The project was scheduled to be completed during summer 2012.



Legend

Project Site

Flood Zones

- A - Subject to 100 year flood. Base flood elevation undetermined.
- AE - Subject to 100-year flood with base flood elevation determined.
- AH - Subject to 100-year shallow flood. Base flood elevation determined.
- AO - Subject to 100-year shallow flooding. Base flood elevation undetermined.
- X - Areas outside of 100-year and 500-year floodplains.
- D - Unstudied Areas. Flood hazards undetermined.

Source: ESRI Aerial Imagery, FEMA Flood Data, June 2011.

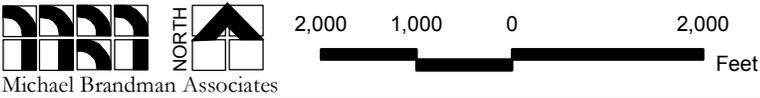


Exhibit 3.7-1
Special Flood Hazard Areas

After the dredging project has been completed, the cumulative 100-year peak spill from Ford Creek between the Calaveras Boulevard culverts and Bothelo Avenue is 35 cubic feet per second (cfs). Excess water from Ford Creek is blocked from spilling to the east by the Union Pacific Railroad storage area. Local site drainage and drainage from the Union Pacific Railroad storage area is unable to enter the creek (which is over capacity during the 100-year storm) and will contribute an additional 20 cfs to excess flows at the project site. Shallow local ponding will occur on the project site to elevation 20 (NAVD88), before that ponded water is released to the west toward the Union Pacific Railroad tracks in four locations: three along the left overbank across the project site and one at the upstream faces of the Calaveras Boulevard culverts to the north.

The three offsite spills from the project site flow along the Union Pacific Railroad track generally to the north (and also potentially to the west as shallow sheet flow through the adjacent neighborhood), where they combine with water that spills at the Calaveras Boulevard culvert entrance and flows through the storage yard to the north or through the parking lot above the culvert centerline before flowing across the Railroad Avenue cul-de-sac. The combined spill is then conveyed along Railroad Avenue and the Union Pacific Railroad right of way 190 feet north to inlets and a 24-inch corrugated metal pipe which outfalls to lower Ford Creek. Flow in excess of the 24-inch corrugated metal pipe capacity will simply return to the creek over its western bank.

Railroad Avenue has a “top of curb” capacity of approximately 35 cfs based on existing conditions and assuming a City of Milpitas standard 36-foot crowned road section. The railroad tracks have a capacity of about 100 cfs while maintaining approximately one foot of freeboard to the rails. Thus, existing spills from Ford Creek and local runoff from the project site that cannot enter Ford Creek (55 cfs in total) are ultimately conveyed along the Union Pacific Railroad right-of-way under the Calaveras Boulevard overpass and back to Ford Creek downstream of Calaveras Boulevard without overtopping the railroad tracks. The lower reach of Ford Creek, before its confluence with Wrigley Creek, has sufficient capacity to carry the 100-year discharge within its banks, and Wrigley-Ford Creek has sufficient capacity to carry the combined 100-year discharge from Wrigley and Ford Creeks within its banks, assuming no upstream spills.

Dam Inundation

The site is located within the inundation boundaries of Leroy Anderson Dam. It is not located within the inundation limits of Lexington, Cherry Flat, Elisma, Levin, Steven’s Creek, or Coyote Dams. The Santa Clara Valley Water District (SCVWD) performed an analysis of the effects of Anderson Dam failure in 2003. This analysis resulted in an expected maximum wet weather inundation depth of approximately 9.5 feet (elevation 30.5 feet NAVD) at the project site within 9 hours after dam failure. There is no expected inundation at the project site during fair weather conditions. These results assume that the dam is at full capacity during failure. The dam is currently kept at a maximum depth of about 68 percent full due to a recent SCVWD seismic analysis. This analysis determined that the dam may experience significant damage in an earthquake and the water level should remain about 25

feet below the spillway until seismic retrofits can be completed. (The currently estimated date of completion is 2018.)

3.7.3 - Regulatory Framework

Federal

Clean Water Act

Section 303 of the Clean Water Act requires states to adopt water quality standards for all surface waters of the United States. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards. See a description of State Porter-Cologne Water Quality Control Act, below. Standards are based on the designated beneficial use(s) of the water body. Where multiple uses exist, water quality standards must protect the most sensitive use.

Section 402 of the Clean Water Act mandates that certain types of construction activity comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase II Rule, issued in 1999, requires that construction activities that disturb land equal to or greater than 1 acre require permitting under the NPDES program. In California, permitting occurs under the General Permit for Stormwater Discharges Associated with Construction Activity, issued to the State Water Resources Control Board (SWRCB) and implemented and enforced by the nine Regional Water Quality Control Boards (RWQCBs). The project site is within the boundaries of the San Francisco Bay RWQCB.

This General Permit requires all dischargers, where construction activity disturbs one (1) or more acres, to take the following measures:

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP), which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off site into receiving waters.
2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.
3. Perform inspections of all BMPs.

To obtain coverage, the landowner must file a Notice of Intent with the SWRCB. The notice is required to include the requirements listed above. When project construction is completed, the landowner must file a notice of termination.

Floodplain Regulations

Executive Order (EO) 11988 for Floodplain Management (May 24, 1977) directs all federal agencies to evaluate potential effects of any actions it may take in the floodplain and to avoid all adverse impacts associated with modifications to floodplains. It also directs federal agencies to avoid floodplain development whenever there is a practicable alternative and to restore and preserve the natural and beneficial values served by the floodplains.

The Federal Emergency Management Agency (FEMA) oversees floodplains and administers the National Flood Insurance Program (NFIP) adopted under the National Flood Insurance Act of 1968. The program makes federally subsidized flood insurance available to property owners within communities that participate in the program. Areas of special flood hazard (those subject to inundation by a 100-year flood) are identified by FEMA through regulatory flood maps titled Flood Insurance Rate Maps. The NFIP mandates that development cannot occur within the regulatory floodplain (typically the 100-year floodplain) if that development results in an increase of more than 1 foot in flood elevation. In addition, development is not allowed in delineated floodways within the regulatory floodplain.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1969 authorized the SWRCB to provide comprehensive protection for California's waters through water allocation and water quality protection. The SWRCB implements the requirement of the Clean Water Act Section 303, indicating that water quality standards have to be set for certain waters by adopting water quality control plans under the Porter-Cologne Act. The Porter-Cologne Act established the responsibilities and authorities of the nine RWQCBs, which include preparing water quality plans for areas in the region, identifying water quality objectives, and issuing NPDES permits and Waste Discharge Requirements. Water quality objectives are defined as limits or levels of water quality constituents and characteristics established for reasonable protection of beneficial uses or prevention of nuisance. The Porter-Cologne Act was later amended to provide the authority delegated from EPA to issue NPDES permits.

Water Quality Control Plan for the San Francisco Bay Basin

The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the RWQCB's master water quality control planning document. The Basin Plan designates beneficial uses and water quality objectives for waters of the State located within the 4,603-square-mile basin, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives.

Local

City of Milpitas

General Plan

The General Plan establishes the following principles and policies related to water quality and conservation that are applicable to the proposed project:

- **Principle 4.d-G-1:** Protect and enhance the quality of water resources in the Planning Area.
- **Principle 4.d-G-2:** Promote conservation and efficiency in the use of water.
- **Policy 4.d-I-1:** Continue implementing the National Pollutant Discharge Elimination System (NPDES) requirements of the Regional Water Quality Board.
- **Principle 5.b-G-1:** Minimize threat to life and property from flooding and dam inundation.
- **Policy 5.b-I-1:** Ensure that new construction or substantial improvements to any existing structure result in adequate protection from flood hazards. This includes ensuring that:
 - New residential development within the 100-year Flood Zone locate the lowest floor, including basement, above the base flood elevation; and
 - New non-residential development locate the lowest floor, including basement, above the base flood elevation or incorporate flood-proofing and structural requirements as spelled out in the Municipal Code.
- **Policy 5.b-I-2:** Require all structures located within the 100-year Flood Zone to provide proof of flood insurance at the time of sale or transfer of title.
- **Policy 5.b-I-3:** Ensure that encroachment into designated floodways does not result in any increase in flooding hazards.

Municipal Code

Municipal Code Title XI, Chapter 15 provides methods and provisions to minimize public and private losses due to flood conditions. Development located within special flood hazard zones must obtain approval of a development permit from the Floodplain Administrator. Residential construction is required to have the lowest floor, including basement, elevated to heights above the floodplain level as indicated in the Municipal Code.

Municipal Code Title XI, Chapter 16 provides regulations and gives legal effect to certain requirements of the NPDES permit No. CAS029718, as amended by Order No. 01-119, issued to the City of Milpitas regarding municipal stormwater and urban runoff requirements. Projects that result in an increase or replacement of impervious surface of a previously existing development are required to include Permanent Stormwater Pollution Prevention Measures in the design to sufficiently reduce water quality impacts of urban runoff from the affected portion of the site for the life of the project.

3.7.4 - Methodology

Michael Brandman Associates (MBA) analyzed the proposed project's potential to cause adverse impacts on hydrology and water quality utilizing several resources. MBA used the Western Regional Climate Center for meteorology and climate information and the California Department of Water

Resources Bulletin 118: San Francisco Bay Hydrologic Region, Santa Clara Valley Groundwater Basin for groundwater information. MBA referenced the City of Milpitas General Plan to identify waterways in the project vicinity. MBA reviewed project plans to determine what changes would occur to existing drainage facilities.

3.7.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hydrology and water quality impacts resulting from the implementation of the proposed project would be considered significant if the project would:

- a) Violate any water quality standards or waste discharge requirements?
- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?
- c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?
- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?
- e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- f) Otherwise substantially degrade water quality?
- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
- h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?
- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
- j) Inundation by seiche, tsunami, or mudflow? (Refer to Section 7, Effects Found Not To Be Significant.)

3.7.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Short Term Water Quality

Impact HYD-1: Construction activities associated with the proposed project have the potential to degrade water quality in downstream water bodies.

Impact Analysis

This analysis evaluates the proposed project impact on short-term water quality. The analysis considers individual impacts associated with the implementation of the project.

Development of the proposed project would require extensive grading and construction activities that could easily disturb more than 1 acre. During these activities, there would be the potential for surface water to carry sediment from onsite erosion and small quantities of pollutants into the stormwater system and local waterways. Soil erosion may occur along project boundaries during construction in areas where temporary soil storage is required. Small quantities of pollutants have the potential for entering the storm drainage system, thereby potentially degrading water quality.

Construction of the proposed project would also require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, water pumps, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would likely be utilized during construction. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The NPDES stormwater permitting programs regulate stormwater quality from construction sites. Under the NPDES permitting program, the preparation and implementation of SWPPPs are required for construction activities more than 1 acre in area. The SWPPP must identify potential sources of pollution that may be reasonably expected to affect the quality of stormwater discharges as well as identify and implement BMPs that ensure the reduction of these pollutants during stormwater discharges.

Mitigation is proposed that would require the project applicant to prepare and implement an SWPPP. The implementation of the mitigation measure would ensure that potential, short-term, construction water quality impacts are reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HYD-1 Prior to the issuance of grading permits for the proposed project, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the City of Milpitas that identifies specific actions and Best Management Practices (BMPs) to prevent stormwater pollution during construction activities. The SWPPP shall adhere to the applicable provisions of the Municipal Regional Permit (including Low Impact

Development) and identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP shall include but not be limited to the following elements:

- Temporary erosion control measures shall be employed for disturbed areas.
- No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.
- Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures.
- The construction contractor shall prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains.
- BMP performance and effectiveness shall be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.

In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover shall be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

Level of Significance After Mitigation

Less than significant impact.

Long-Term Water Quality

Impact HYD-2: Operational activities associated with the proposed project have the potential to degrade water quality in downstream water bodies.

Impact Analysis

This analysis evaluates the proposed project impact on long-term water quality. The analysis considers individual impacts associated with the implementation of the project.

Currently, the project site contains approximately 13.4 acres of impervious surfaces, with approximately 2 acres pervious coverage. The proposed project would maintain the existing impervious surface coverage of the project site but would replace the existing industrial uses with residential uses. Residential use of the project site could create the potential for discharge of urban pollutants into downstream waterways. Leaks of fuel or lubricants, tire wear, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff being transported to receiving waters. Runoff from the landscaped areas may contain residual pesticides and nutrients.

Mitigation is proposed that would require the project applicant to prepare and submit a stormwater quality management plan to the City of Milpitas for review and approval. The plan would require the project applicant to document various stormwater quality control measures that would be in effect during project operations to ensure that water quality in downstream water bodies is not degraded. The implementation of this mitigation measure would ensure that potential, long-term, operational water quality impacts are reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HYD-2 Prior to the issuance of building permits for the proposed project, the project applicant shall submit a stormwater management plan to the City of Milpitas for review and approval. The stormwater management plan shall comply with the requirements of the Municipal Regional Permit (including Low Impact Development) and Milpitas Municipal Code Title XI, Chapter 16 and identify pollution prevention measures and practices to prevent polluted runoff from leaving the project site. Examples of stormwater pollution prevention measures and practices to be contained in the plan include but are not limited to:

- Strategically placed bioswales and landscaped areas that promote percolation of runoff
- Pervious pavement
- Roof drains that discharge to landscaped areas
- Trash enclosures with screen walls
- Stenciling on storm drains
- Curb cuts in parking areas to allow runoff to enter landscaped areas
- Rock-lined areas along landscaped areas in parking lots
- Catch basins
- Oil/water separators
- Regular sweeping of parking areas and cleaning of storm drainage facilities

The project applicant shall also prepare and submit an Operations and Maintenance Agreement to the City identifying procedures to ensure that stormwater quality control measures work properly during operations.

Level of Significance After Mitigation

Less than significant impact.

Groundwater

Impact HYD-3: **The proposed project does not have any characteristics that would contribute to groundwater overdraft or contamination.**

Impact Analysis

This analysis evaluates the proposed project impact on groundwater. The analysis considers individual impacts associated with the implementation of the project.

The existing land uses on the project site are currently served by the City of Milpitas potable water system and the proposed land uses would also be served by the City's water system. Although the proposed project's residential uses would increase daily potable water consumption by 38,769 gallons, this is within projected water supply levels and would not require the use of additional groundwater resources (refer to Section 3.12, Utility Systems for further discussion). In addition, no groundwater wells would be located on the project site. Therefore, the project would not contribute to groundwater overdraft.

The total existing pervious surface of the project site is about 2 acres. Applying the average annual infiltration volume (0.24 acre-foot per acre) and the most conservative assumption, that no rainfall onto impervious surface is able to percolate into the groundwater basin, results in a current condition of about 0.5 acre-foot per year of infiltration. In the proposed condition, the total pervious area would be approximately 4.9 acres, which results in a post-project infiltration of approximately 1.2 acre-feet per year. This shows an increase in groundwater recharge in the proposed project condition of approximately 0.7 acre-foot per year. These calculations assume zero infiltration of rainfall onto impervious areas; however, the project would be required to use drainage structures and BMPs (none of which exist for the current site), which will promote infiltration of runoff from impervious surfaces. As such, the proposed project would not interfere with groundwater recharge.

The proposed project would not involve the installation of underground storage tanks (USTs) or handle bulk quantities of hazardous liquid materials that could potentially contaminate groundwater. The project site currently contains an MTBE groundwater plume. Remediation efforts are currently underway to contain and mitigate the groundwater plume, and implementation of this project would include the continuation of such efforts (refer to Section 3.5, Hazards and Hazardous Materials, for further discussion).

Therefore, impacts on groundwater would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Drainage

Impact HYD-4: The proposed project would not increase impervious surface coverage and, therefore, would not have the potential to contribute to downstream flooding.

Impact Analysis

The proposed project's 220 dwelling units would be located within an area that currently contains developed industrial uses and is drained by the existing storm drainage system serving the project site. The existing drainage infrastructure would be either replaced or upgraded to serve the proposed project.

Detailed grading and storm drainage utility plans have not been provided at the time of this study, but the preliminary plan is to drain the entire site directly to Ford Creek utilizing the existing outfalls. The post project flow rates are based on the total site drainage area and the proposed changes in land use. As a result of the proposed project, the entire site will decrease in imperviousness from 87 percent to 68 percent, thereby reducing onsite drainage needs. Table 3.7-4 compares the existing stormwater runoff rates with the results of an analysis for post-project peak runoff rates.

Table 3.7-4: Existing and Proposed Peak Stormwater Flow Rates

| Scenario | Sub-Basin | Peak Stormwater Flow Rates (cfs) | | |
|---|----------------------|----------------------------------|---------------|----------------|
| | | 2-Year Storm | 10-Year Storm | 100-Year Storm |
| Existing Conditions | Railroad (Northwest) | 2 | 4 | 6 |
| | Ford Creek (East) | 5 | 9 | 12 |
| | Total | 7 | 13 | 18 |
| Proposed Project Conditions | Entire Site | 5 | 8 | 12 |
| Note: cfs = cubic feet per second Source: Schaaf & Wheeler, 2012. | | | | |

As shown in Table 3.7-4, the total runoff from the site for the 100-year storm decreases from 18 to 12 cfs. As such, the proposed project's drainage patterns would not contribute to downstream flooding and would not exceed existing storm drain capacity. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

100-Year Flood Hazards

Impact HYD-5: **The proposed project may place housing and structures within a 100-year flood hazard area and may impede or redirect flood flows.**

Impact Analysis

This impact evaluates the potential for the proposed project to locate structures within a 100-year flood hazard area and impede or redirect flood flows.

Placement of Housing Within a 100-Year Flood Hazard Area

As discussed under Flood Plain Mapping in Section 3.6.2, Environmental Setting, the project site is located in special flood hazard area Zones X and AH. Zone X is considered outside of the designated 100-year special flood hazard area. Zone AH identifies an area of ponded flood depths of 1 to 3 feet with a ponded elevation (i.e., base flood elevation) of 20 feet NAVD. As such, the proposed project would place housing within a 100-year flood hazard area. This is a potentially significant impact.

According to the City of Milpitas Municipal Code Section XI, Chapter 15, finished floor elevations must be set at 1 foot above the base flood elevation. Therefore, the site should be designed to provide finish floor elevations of 21 feet NAVD or greater to avoid floodwater inundation. Accordingly, Mitigation Measure HYD-5a is proposed that would require onsite structures to be elevated so that the lowest adjacent grade to any residential structure exceeds the Base Flood Elevation by a minimum of 1 foot.

Impediment or Redirection of 100-Year Flood Flows

Placement of structures and fill on the project site would have the potential to block the release of floodwater spilled from Ford Creek. Schaaf & Wheeler has used the existing HEC-RAS model from the 2010 Ford-Wrigley Creek Dredging study to develop a revised model depicting the post-project conditions at the site, assuming the entire site is graded to raise proposed dwelling units above the 100-year floodplain. After the placement of project fill, the localized shallow ponding during extreme runoff events would be removed and the local runoff and creek spills described previously would release to the north over Railroad Avenue. Approximately 55 cfs would flow across the proposed park and north down Railroad Avenue and the railroad tracks, matching the existing northern flow path condition. Overland release into the Union Pacific Railroad tracks to the west of the project due to local drainage and creek spills would be eliminated, also reducing flooding risks to structures west of the site. The limitation of upstream spills and re-direction of local drainage into the creek would result in a rise of water surface elevation of up to 0.4 foot within Ford Creek, conservatively assuming all local onsite flow enters the creek at the upstream end of the creek model. The City of Milpitas and Santa Clara Valley Water District consider flood elevation impacts greater than 0.1 foot to be significant.

To eliminate the impact caused by placing fill at the site and forcing spill to the north over Railroad Avenue cul-de-sac, the project must provide additional conveyance in Ford Creek; or alternatively provide flow passageways through the site that mimic existing floodplain conditions. Because of the proposed housing design requiring at-grade access to garages, lowering the motor way and bike path that run parallel and adjacent to Ford Creek appears to be the most feasible alternative.

By lowering the elevation of this access route and removing the small berm along the left bank of the creek, the capacity of the creek during extreme flood events would be increased, thereby reducing 100-year water surface elevations. Based on a modified HEC-RAS model, the road would need to be lowered to an elevation equivalent to the 10-year water surface elevation. This scenario provides protection of the bike path and roadway during the 10-year storm event, and provides increased conveyance for larger discharges so that the project has no adverse impacts to Ford Creek 100-year floodwater surface elevations. Roadway elevations should range from 19.7 feet NAVD at Bothelo Avenue to 17.6 feet NAVD at the Railroad Avenue cul-de-sac. To provide overland release of spills from Ford Creek, the proposed park and cul-de-sac extension should remain at existing grade. The park should not include any features that would obstruct the flow of water to the north. Proposed grading is included in Appendix E. Implementation of Mitigation Measure HYD-5b would ensure these adjustments to grading would be incorporated into the proposed project. Impacts would be reduced to less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM HYD-5a Prior to the issuance of grading or building permits, the project applicant shall submit grading and site plans to the City of Milpitas for review and approval demonstrating that the lowest adjacent grade to any residential structure exceeds the Base Flood Elevation by at least 1 foot, as set forth in the latest adopted Flood Insurance Rate Map or Letter of Map Revision (whichever applies). In addition, features that could obstruct the flow of floodwater to the north of the project site shall not be included in the proposed onsite park.

MM HYD-5b Prior to issuance of the first certificate of occupancy for production homes, the dredging project (Wrigley-Ford Creek) shall be completed. If the City has not completed the dredging project during this time frame, then the applicant shall be required to do so under the existing regulatory permits, subject to fair-share contribution towards project.

Level of Significance After Mitigation

Less than significant impact.

Levee or Dam Failure

Impact HYD-6: **The proposed project may expose people or structures to a significant risk of loss, injury or death involving the failure of a levee or dam.**

Impact Analysis

This impact evaluates the potential for the proposed project to be exposed to flooding resulting from the failure of a levee or dam.

Levee Failure

The FIRM flood insurance rate map number 06085C0067H, dated May 18, 2009, indicates the presence of certified levees, or the absence of certification to National Flood Insurance Program standards, whereby such uncertified levees are assumed not to exist. Therefore, the floodplain hazards described in Impact HYD-5 account for potential levee failure hazards. Implementation of Mitigation Measure HYD-5 would ensure impacts are reduced to a less than significant level.

Dam Failure and Inundation

As previously discussed, the project site is located within the catastrophic dam failure inundation boundaries of Leroy Anderson Dam under maximum wet weather conditions and assuming the reservoir is at full capacity during failure. A maximum wet weather inundation depth of approximately 9.5 feet would occur at the project site within 9 hours of dam failure. (It should be noted that most of San Jose and Milpitas would also be inundated under a full capacity catastrophic dam failure scenario.) There is no expected inundation at the project site during fair weather conditions.

While the project site is subject to deep inundation should Leroy Anderson Dam fail catastrophically during a storm event, the dam is inspected twice a year by the District in the presence of representatives from the California Division of Safety of Dams and the Federal Energy Regulatory Commission. Furthermore and as previously discussed, Anderson Reservoir is managed to prevent significant damage during a maximum credible earthquake by maintaining water levels at 25 feet below the spillway. Therefore, while potential inundation resulting from catastrophic dam failure could hypothetically damage property and proposed structures within the project site and pose a severe hazard to public safety, the probability of such failure is extremely remote; therefore, the potential impact is less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.8 - Land Use

3.8.1 - Introduction

This section describes the existing land use and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on site reconnaissance performed by Michael Brandman Associates personnel and review of the City of Milpitas General Plan, the Midtown Specific Plan, and the Milpitas Municipal Code.

3.8.2 - Environmental Setting

Land Use

Project Site

The project site contains developed industrial land uses associated with the Preston Pipeline company.

The site contains 14 light industrial buildings with a combined total of approximately 144,000 square feet. Most of the square footage is contained within two buildings located within the western portion of the project site, with the balance of the square footage allocated among 12 smaller structures. Historic aerial photographs indicate that most of the buildings were developed within the last 15 years.

Outdoor storage activities occur in various places throughout the project site, including in the northern portion of the site along Calaveras Boulevard and in the southern portion of the site near Sinnott Lane. Vehicular access is provided at the Railroad Avenue cul-de-sac and Bothelo Lane. Ornamental landscaping consisting of trees and shrubs is located throughout the project site. Site photographs are provided in Exhibit 2-3.

Surrounding Area

West

The Union Pacific Railroad Warm Springs Subdivision, a single-track rail line linking Fremont and San Jose, forms the western boundary of the project site. West of the Warm Springs Subdivision is a mix of developed commercial and residential uses located along S. Main Street.

North

The Calaveras Boulevard (State Route 237 [SR-237]) overcrossing forms the northern boundary of the project site. The overcrossing, which consists of two parallel, two-lane bridges, spans S. Main Street, Winsor Street, the Warm Springs Subdivision, Railroad Avenue, and the Union Pacific Railroad Milpitas Yard and Milpitas Subdivision. North of Calaveras Boulevard are light industrial uses.

East

The Union Pacific Railroad Milpitas Yard and Milpitas Subdivision, Ford Creek, and Bothelo Lane form the eastern boundary of the project site. The Milpitas Yard is a multi-track facility that

Land Use

primarily sorts and stores rail cars for the adjoining Union Pacific Railroad Automobile Distribution Facility. The Milpitas Subdivision, a single-track rail line linking Fremont and Milpitas, provides rail access to the Milpitas Yard. The Bay Area Rapid Transit (BART) extension from Warm Springs (Fremont) to Berryessa (San Jose) is currently under construction parallel to the east side of the Milpitas Yard.

Ford Creek is a small, ephemeral drainage that is located between the project site and the Milpitas Yard. The drainage feature is contained in a culvert north and south of the project site.

Bothelo Lane is short, two-lane road that dead-ends at the existing rear entrance to the Preston Pipelines site.

South

Single-family residential uses, the Macedonia Missionary Baptist Church, and Sinnott Lane form the southern boundary of the project site. Sinnott Lane is short, two-lane road that connects Bothelo Lane with Hammond Way. The approximately 40-acre Union Pacific Railroad Automobile Distribution Facility is located south of Sinnott Lane and consists of a large black-topped area used for the classification and storage of new automobiles.

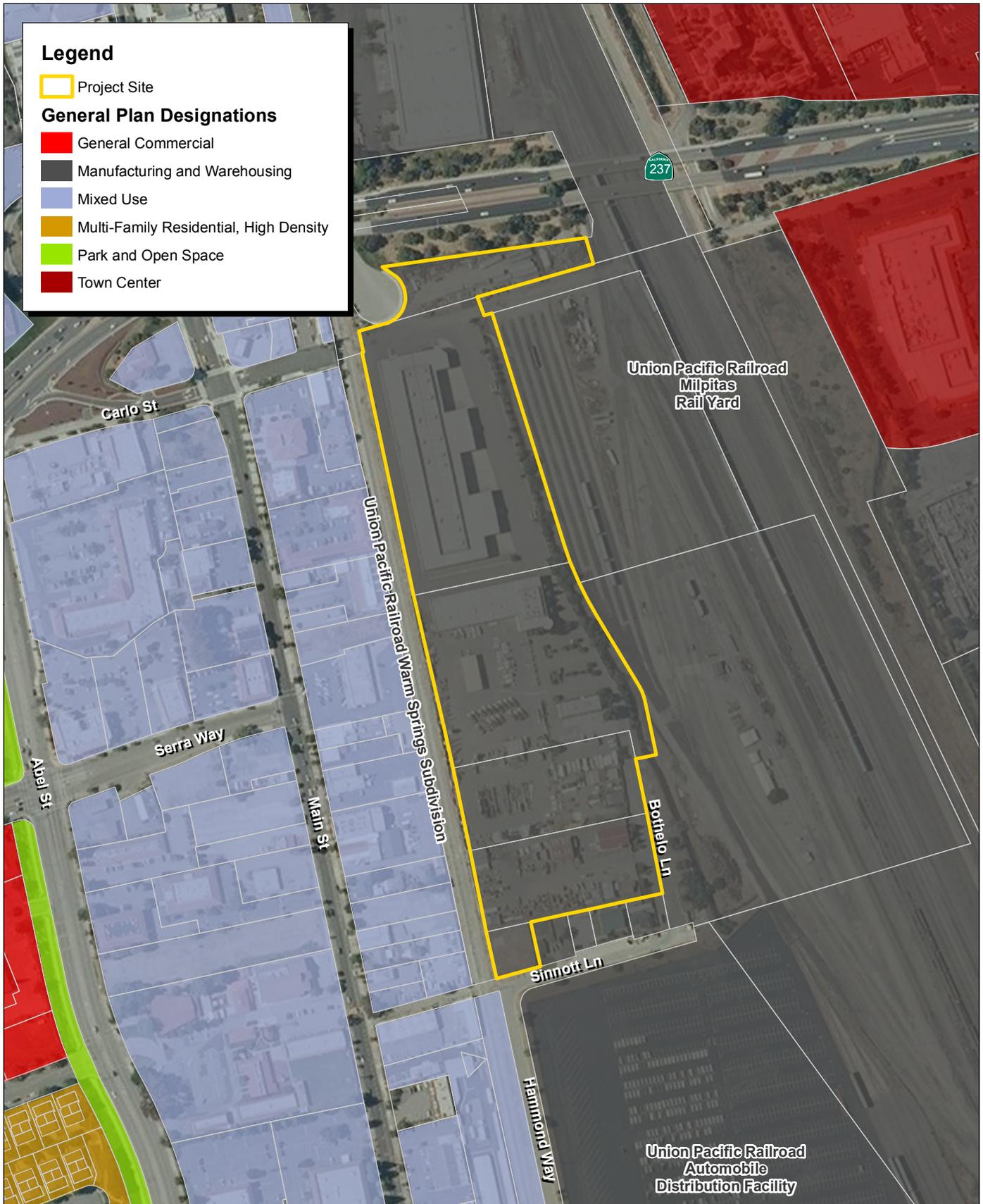
Land Use Designations

Project Site

The project site is designated “Manufacturing and Warehousing” by the City of Milpitas General Plan and zoned “Light Industrial” by the Milpitas Zoning Ordinance. The project site is within the boundaries of the Midtown Specific Plan.

Surrounding Land Uses

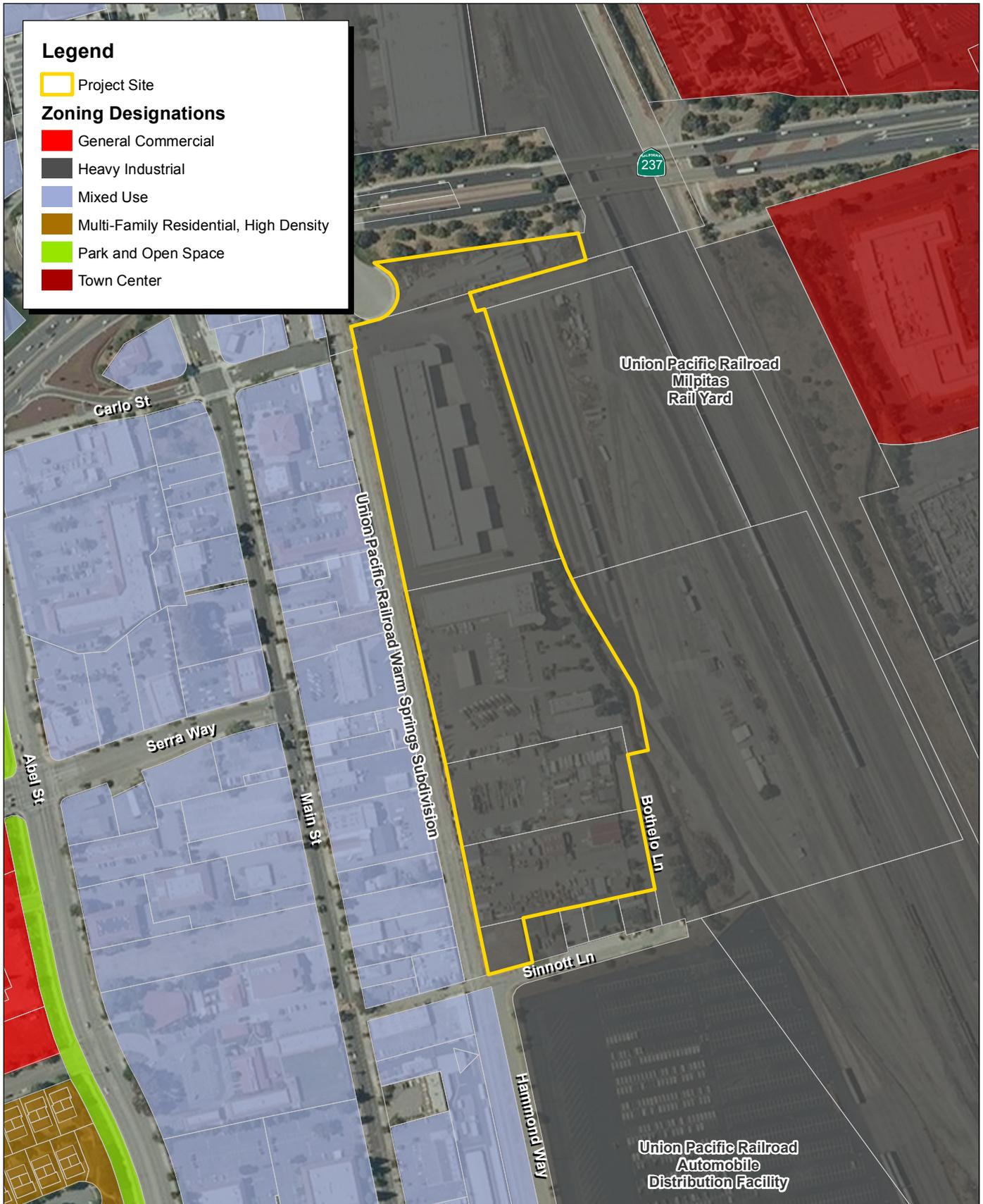
Table 3.8-1 provides the General Plan and Zoning designations for surrounding land uses. The City of Milpitas General Plan map for the project vicinity is provided in Exhibit 3.8-1. The Milpitas Zoning Map for the project vicinity is provided in Exhibit 3.8-2.



Source: ESRI Aerial Imagery, City of Milpitas Planning Department.



Exhibit 3.8-1 General Plan Map



Source: ESRI Aerial Imagery, City of Milpitas Planning Department.



Michael Brandman Associates

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Exhibit 3.8-2 Zoning Map

Table 3.8-1: Surrounding Land Use Designations

| Land Use | Relationship to Project Site | Land Use Designation | |
|--|------------------------------|------------------------------------|-----------------------|
| | | General Plan | Zoning |
| Union Pacific Railroad Warm Springs Subdivision; commercial and residential uses | West | Mixed Use (MXD) | Mixed Use |
| Calaveras Boulevard (SR-237) overcrossing; light industrial uses | North | Manufacturing and Warehousing (MW) | Heavy Industrial (M2) |
| Union Pacific Railroad Milpitas Yard and Milpitas Subdivision; Ford Creek | East | Manufacturing and Warehousing (MW) | Heavy Industrial (M2) |
| Single-family residences; Macedonia Missionary Baptist Church; Union Pacific Railroad Automobile Distribution Facility | South | Manufacturing and Warehousing (MW) | Heavy Industrial (M2) |

Sources: Michael Brandman Associates, 2012; Milpitas General Plan Land Use Map, 2011; Milpitas Zoning Map, 2011.

3.8.3 - Regulatory Framework

Local

City of Milpitas

General Plan

The City of Milpitas General Plan provides a blueprint for growth within the Milpitas city limits and the Sphere of Influence. The Milpitas City Council adopted the most recent General Plan in 2002. The General Plan contains six topical chapters: Introduction and Overview, Land Use Element, Circulation Element, Open Space & Environmental Conservation Element, Seismic & Safety Element, and Noise Element. Each chapter establishes goals and policies to guide future land use activities and development within the General Plan boundaries.

A General Plan Amendment is proposed to change the land use designation from “Manufacturing and Warehousing” to “Multi-Family Residential High Density” and “Parks and Open Space.” The residential land use designation would apply to the residential uses and the private open space area; the parks and open space designation would apply to the proposed trail along Ford Creek.

According to the City’s General Plan, the Multi-Family Residential High Density land use designation permits 12 to 20 units per gross acre. This density range is intended to accommodate a variety of housing types from row houses to triplexes and four-plexes, stacked townhouses, and walk-up garden apartments.

Midtown Specific Plan

The Milpitas Midtown Specific Plan was adopted in March 2002 and amended in October 2008. It provides a vision for an approximately 850-acre area of land that is currently undergoing changes related to its growing role as a housing and employment center in Silicon Valley. As stated in the

Specific Plan, the overall strategy in the Midtown Area is to create a mixed-use community that includes high-density, transit-oriented housing and a central community “gathering place,” while maintaining needed industrial, service, and commercial uses. The project site is designated as Manufacturing and Warehouse within the Midtown Specific Plan.

Municipal Code

The Milpitas Municipal Code provides regulation of land and structures in order to protect and promote health, safety, and welfare of the public, and to insure the orderly development of the City. As a part of the proposed project, the project site would be rezoned from “Light Industrial” to “Multi-Family High Density Residential (R3) with Site and Architectural Overlay” and “Parks and Open Space (POS),” which would entail an amendment to the Midtown Specific Plan. The residential zoning would apply to the residential uses and the private open space area; the parks and open space zoning would apply to the proposed trail along Ford Creek. Zoning district details are provided below.

The purpose and intent of the Multi-Family High Density Residential (R3) zone is to stabilize and protect the residential characteristics of the district and to promote, insofar as compatible with the intensity of land use, a suitable environment for family life. According to the Municipal Code, the purpose and intent of the Site and Architectural (-S) Overlay District is to be a “distinct district that promotes orderly, attractive, and harmonious development; recognizes environmental limitations on development; stabilizes land values and investments; and promote the general welfare by preventing or disallowing establishment of uses or erection of structures having qualities which would not meet the specific intent clauses or performance standards of the Zoning Ordinance or which are not properly related to their sites, surroundings, traffic circulation, or their environmental setting.”

The Parks and Open Space District is intended to provide for public open space and recreational uses in order to preserve environmentally sensitive areas and accommodate community service or recreational facilities.

3.8.4 - Methodology

Michael Brandman Associates (MBA) evaluated the potential for land use impacts through site reconnaissance and review of applicable land use policy documents. MBA personnel performed site reconnaissance on the project site and surrounding land uses in April 2012. Photographs were taken of the project site and surrounding land uses to document existing conditions. MBA reviewed the City of Milpitas General Plan and the Milpitas Municipal Code to identify applicable policies and provisions that pertain to the proposed project.

3.8.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, land use impacts resulting from the implementation of the proposed project would be considered significant if the project would:

- a) Physically divide an established community?
- b) 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?
- c) Conflict with any applicable habitat conservation plan or natural communities conservation plan? (Refer to Section 7, Effects Found Not To Be Significant.)

3.8.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Division of an Established Community

Impact LU-1: The proposed project would not physically divide an established community.

Impact Analysis

The project site contains developed industrial land uses associated with the Preston Pipeline company, including approximately 144,000 square feet of industrial buildings and outdoor storage activities on 15.4-gross-acres. Because the onsite structures are non-residential in nature, they would not constitute an established community. Therefore, the removal of the structures on the project site would not be considered the division of an established community.

In addition, the project does not serve as a linkage between any nearby residential communities. The project site is in private ownership and is occupied by the previously mentioned structures and land uses, which serve as a barrier to direct and convenient access across the project site. Therefore, the development of the proposed project would not divide an established community by severing a linkage. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

General Plan Consistency

Impact LU-2: **The proposed project may conflict with the applicable provisions of the City of Milpitas General Plan.**

Impact Analysis

The proposed project consists of the development of as many as 220 dwelling units on the 15.4-gross-acre project site. The proposed project would require a General Plan Amendment, which is evaluated in detail below. In addition, the proposed project’s consistency with the applicable goals and policies of the General Plan is considered.

General Plan Land Use Designation Consistency Analysis

A General Plan Amendment is proposed to change the land use designation from “Manufacturing and Warehousing” to “Multi-Family Residential High Density” (14.2 acres) and “Parks and Open Space” (1.2 acres); refer to Exhibits 2-5a and 2-5b. The project site is not currently designated or zoned for the residential and recreational uses proposed by the project; however, approval of the requested General Plan Amendment and rezone would bring the project into compliance and would conform to the Goals and Policies set forth in the City’s General Plan.

By designating and zoning the site for residential uses and developing the proposed project, the City would need to assess whether the project is consistent with the General Plan’s policies regarding the jobs and housing balance. The Land Use Element, as well as the Housing Element of the General Plan, indicates the City’s intent to encourage the provision of a variety of housing types close to industrial uses and transit services. To the extent feasible, this EIR will ensure through mitigation that offsite improvements are completed to integrate the neighborhood into the Milpitas community. Conditions of approval through the entitlement process will require further enhancements to the project to obtain this goal. In addition, the General Plan emphasizes the importance of considering the redesignation of lands for specific residential projects on a project-specific basis.

According to the City’s General Plan, the Multi-Family Residential High Density land use designation permits 12 to 20 units per gross acre. This density range is intended to accommodate a variety of housing types ranging from row houses to triplexes and four-plexes, stacked townhouses, and walk-up garden apartments. The proposed project consists of 220 dwelling units on the 14.2 acres contemplated for the Multi-Family Residential High Density land use designation, which equates to a density 15.5 dwelling units per acre. (Note that the 1.2-acre private open space area is excluded from the average density calculation). As such, the residential uses for the proposed project are consistent with the General Plan’s prescribed uses for the Multi-Family Residential High Density land use designation.

The current Manufacturing and Warehousing land use designation would allow the continued use and expansion of large warehouses or light manufacturing uses with outside storage areas visible from SR-237 because of the overcrossing’s elevation above grade necessary to span the railyard. The proposed Multi-Family Residential High Density land use designation would not allow warehouse

development, thereby creating a neighborhood with a different visual characteristic but limiting industry and job-generating potential.

General Plan Goals and Policies Consistency Analysis

Table 3.8-2 summarizes the proposed project’s consistency with all applicable goals and policies of the General Plan. As shown in the table, the proposed project is mostly consistent with all applicable principles and policies. Mitigation is proposed where necessary to achieve consistency with the General Plan, which would reduce impacts to a level of less than significant.

Table 3.8-2: General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|--------------|-----------------------|--|---|
| | No. | Text | |
| 2 – Land Use | Principle 2.a-G-2 | Maintain a relatively compact urban form. | Consistent: The project site is located on a previously developed site located near the center of Milpitas. The proposed project would demolish existing site uses and construct as many as 220 dwelling units on 14.2 acres of the project site for a density of 15.5 dwelling units per acre. This would be consistent with the objective of maintaining a compact urban form. |
| | Principle 2.a-G-3 | Provide for a variety of housing types and densities that meet the needs of individuals and families. | Consistent: As many as 220 dwelling units would be developed on the site. The dwelling units would be a mixture of single-family and townhome units, thereby providing for a variety of housing types and densities that would meet the needs of individuals and families. |
| | Principle 2.a-G-5 | A park-like setting will be created by a series of local parks, school sites, trails, and a greenway system laced throughout all living areas. | Consistent: The proposed project would provide a network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. Furthermore, the project applicant and the City of Milpitas are evaluating the feasibility of installing offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|--|--|
| | No. | Text | |
| | Principle 2.a-G-6 | Implement the Midtown Specific Plan goals, policies and development standards and guidelines to create a mixed-use community that includes high-density, transit-oriented housing and a central community ‘gathering place’ while maintaining needed industrial service and commercial uses. | Consistent With Mitigation: The proposed project would be consistent with the goals, policies, and development standards and guidelines of the Midtown Specific Plan with the implementation of Mitigation Measure LU-2. Refer to Impact LU-3 for further discussion. |
| | Policy 2.a-I-1 | New developments should not exceed the building intensity limits established in the General Plan. | Consistent: With a proposed average density of 15.5 dwelling units per acre, the project would be within the authorized density range for the Multi-Family Residential High Density, which is 12 to 20 units per acre. |
| | Policy 2.a I-2 | Promote development within the incorporated limits which acts to fill-in the urban fabric rather than providing costly expansion of urban services into outlying areas. | Consistent: The proposed project is located within the incorporated limits and would consist of the redevelopment of an industrial site. As such, it would not require expansion into outlying areas. |
| | Policy 2.a-I-11 | Create a park-like quality for all residential areas through the PUD process and the judicious siting of parks, schools and greenways throughout those areas. | Consistent: The proposed project would include open space amenities, including 1.2 acres of land immediately adjacent to Calaveras Boulevard at the north end of the project site for the development of a private park. There is also potential for an area adjacent to the Ford Creek, which may be used for recreation purposes, including a bicycle route to connect Railroad Avenue and Hammond Way. |
| | Policy 2.a-I-12 | Use zoning for new residential developments to encourage a variety and mix in housing types and costs. | Consistent: The proposed rezoning to Multi-Family High-Density Residential would allow a variety of housing types, including the proposed single-family dwellings and townhomes. |
| | Policy 2.a-I-13 | Geographically disperse similar development types throughout the community so that denser districts are not concentrated within a single area of the City. | Consistent: The proposed project would locate a medium-density housing development within a primarily industrial and commercial area, thereby promoting a geographically diverse development pattern. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|--|
| | No. | Text | |
| | Policy 2.a-I-22 | Develop the Midtown areas, as shown on the Midtown Specific Plan, as an attractive and economically vital district that accommodates a mixture of housing, shopping, employment, entertainment, cultural and recreational activities organized with a system of landscaped boulevards, streets and pedestrian bicycle linkages. | Consistent: The proposed project would be consistent with the goals, policies, and development standards and guidelines of the Midtown Specific Plan. Refer to Impact LU-3 for further discussion. |
| | Policy 2.a-I-23 | Require development in the Midtown area to conform to the adopted design guidelines/requirements contained in the Midtown Specific Plan. | Consistent: The proposed project would be consistent with the goals, policies, and development standards and guidelines of the Midtown Specific Plan. Refer to Impact LU-3 for further discussion. |
| | Principle 2.b-G-1 | Support jobs/housing balance programs at the local and regional scale intended to reduce the distance needed to commute. | Consistent: The proposed project would include as many as 220 dwelling units in a primarily industrial and commercial area, thereby providing the opportunity for reduced commute distances. |
| | Policy 2.b-I-2 | Consider locating housing in close proximity to industrial developments where they can be served by existing city services and facilities. | Consistent: The proposed project would include as many as 220 dwelling units in a primarily industrial and commercial area. The site is served by existing city services and facilities. |
| | Policy 2.b-I-3 | Provide housing opportunities in Milpitas by meeting the City’s regional fair-share housing obligations. | Consistent: The proposed project would include as many as 220 dwelling units, thereby assisting the City in meeting regional fair-share housing obligations. |
| | Policy 2.b-I-4 | Support jobs/housing balance programs at the regional scale that reduce in- and out- commuting from Milpitas. | Consistent: The proposed project consists of infill redevelopment within Midtown Milpitas that would include as many as 220 dwelling units. As such, the proposed project would further the policy of improving jobs/housing balance that create opportunities for reduced in- and out-commuting from Milpitas. |
| | Principle 2.c-G-1 | Provide adequate school facilities for the City’s residents. | Consistent: The proposed project would contribute fair-share fees to ensure adequate school facilities are provided for the City’s residents. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|-----------------|-----------------------|---|---|
| | No. | Text | |
| | Principle 2.d-G-1 | Provide all possible community facilities and utilities of the highest standards commensurate with the present and anticipated needs of Milpitas, as well as any special needs of the region. | Consistent: The proposed project is currently served by community facilities and utilities and would either replace or upgrade such facilities to serve the proposed project. Therefore, the proposed project would be served with adequate utilities. |
| | Policy 2.d-I-1 | Coordinate capital improvement planning for all municipal service infrastructure with the location and timing of growth. | Consistent: The project applicant would provide the full cost of all onsite improvements and fair-share costs for all offsite improvements needed to serve the project. |
| 3 – Circulation | Principle 3.a-G-1 | Continue to utilize the City’s adopted Level of Service standards in evaluating development proposals and capital improvements. | Consistent: The proposed project’s traffic impacts were evaluated using the City’s adopted Level of Service standards. Refer to Section 3.9, Transportation for further discussion. |
| | Principle 3.a-G-2 | Maintain acceptable service standards for a major streets and intersections. | Consistent: In accordance with the objective of maintaining acceptable service standards, the proposed project would implement all feasible mitigation for its traffic impacts. Refer to Section 3.9, Transportation for further discussion. |
| | Policy 3.a-I-1 | Strive to maintain CMP LOS standards and goals for the CMP Roadway System in Milpitas. | Consistent: In accordance with the objective of maintaining acceptable CMP service standards, the proposed project would implement all feasible mitigation for its traffic impacts. Refer to Section 3.9, Transportation for further discussion. |
| | Policy 3.a-I-2 | For collectors and arterials east of Interstate 880 operating at baseline (1991) LOS F, require any development project that impacts the facility at or greater than one percent of facility capacity to implement mitigation measures to reduce the development project’s impacts below the one percent level. If an identified location cannot be mitigated, measures designed to improve system-wide levels of service can be implemented. These system-wide improvement strategies will be contained in the Citywide Deficiency Plan. | Consistent: Portions of Abel Street and Main Street would operate at LOS F with the addition of the proposed project’s traffic. Because the proposed project’s impacts on these roadways would be greater than 1 percent of facility capacity, mitigation to reduce the impact is required. However, no feasible mitigation measures are available because of insufficient right-of-way. Mitigation is proposed that would require the project applicant to provide fair-share traffic fees to fund planned transportation improvements. Implementation of |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|--|
| | No. | Text | |
| | | | this mitigation would help reduce overall travel times in the project vicinity. Refer to Section 3.9, Transportation for further discussion. |
| | Policy 3.a-I-4 | On streets where substandard service levels are anticipated, investigate and implement improvement projects that will enhance traffic operations. | Consistent: The proposed project would implement all feasible mitigation measures to mitigate for its impact on intersection operations, roadway operations, and queuing. Refer to Section 3.9, Transportation for further discussion. |
| | Principle 3.b-G-1 | Develop a street network integrated with the pattern of living, working and shopping areas, and which provides for safe, convenient, and efficient vehicular movement within the City and to other parts of the region. | Consistent: The proposed project would implement mitigation measures to mitigate for its impact on intersection operations, roadway operations, and queuing. This mitigation would contribute to safe, convenient, and efficient vehicular movement. Refer to Section 3.9, Transportation for further discussion. |
| | Principle 3.b-G-4 | Use the “Major Improvements Needed” subsection as a basis for identifying, scheduling, and implementing roadway improvements as development occurs in the future. | Consistent: The proposed project would implement mitigation measures to mitigate for its impact on intersection operations, roadway operations, and queuing. Refer to Section 3.9, Transportation for further discussion. |
| | Policy 3.b-I-1 | Require new development to pay its share of street and other traffic improvements based on its impacts. | Consistent: The proposed project would either install necessary improvements or pay fair-share fees to be used to assist with street and other traffic improvements. Refer to Section 3.9, Transportation for further discussion. |
| | Policy 3.b-I-2 | Require all projects that generate more than 100 peak-hour (A.M. or P.M.) trips to submit a transportation impact analysis that follows guidelines established by CMP. | Consistent: Hexagon Transportation Consultants evaluated the proposed project’s traffic impacts in a Traffic Impact Analysis that was prepared in accordance with CMP guidelines. The findings of the analysis are summarized in Section 3.9, Transportation. |
| | Principle 3.c-G-1 | Promote measures that increase transit use and lead to improved utilization of the existing transportation system. | Consistent: The Santa Clara Valley Transportation Authority would serve the proposed project. Bus stops for Routes 47 and 66 are within 0.5 mile from the project site. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|---|
| | No. | Text | |
| | Principle 3.c-G-2 | Cooperate with other agencies to promote local and regional transit serving Milpitas. | Consistent: The Santa Clara Valley Transportation Authority would serve the proposed project. Bus stops for Routes 47 and 66 are within 0.5 mile from the project site and provide access to the Great Mall/Main Transit Center, which provides numerous light rail and bus connections. |
| | Principle 3.d-G-2 | Promote walking and bicycling for transportation and recreation purposes by providing a comprehensive system of sidewalks, bicycle lanes, and routes and off-street trails that connects all parts of the City. | Consistent With Mitigation: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. These features would connect to existing and proposed bikeways in the project vicinity. As such, the proposed project would be consistent with the objective of promoting walking and bicycling. |
| | Principle 3.d-G-4 | Encourage a mode shift to non-motorized transportation by expanding current pedestrian and bicycle facilities. | Consistent With Mitigation: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. These features would connect to existing and proposed bikeways in the project vicinity. These facilities would encourage non-motorized transportation. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|--|
| | No. | Text | |
| | Policy 3.d-I-2 | Develop connections between the off-street trail system and on-street bicycle system to fully integrate these facilities. Maximize linkages to other trail and bikeway systems to provide alternative transportation routes for pedestrians and bicyclists. | Consistent With Mitigation: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. These features would connect to existing and proposed bikeways in the project vicinity. |
| | Policy 3.d-I-9 | Require developers to make new projects as bicycle and pedestrian “friendly” as feasible, especially through facilitating pedestrian and bicycle movements within sites and between surrounding activity centers. | Consistent With Mitigation: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. These features would connect to existing and proposed bikeways in the project vicinity. |
| | Policy 3.d-I-10 | Encourage developer contributions toward pedestrian and bicycle capital improvement projects and end-of-trip support facilities. | Consistent With Mitigation: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|--|
| | No. | Text | |
| | | | pedestrian circulation and safety in the project vicinity. |
| | Policy 3.d-I-10 [sic] | Support Safe Routes to School Projects, including infrastructure improvements and education, as an important source for encouragement of walking and bicycling to school as well as supporting the reduction of greenhouse gas emissions. | Consistent With Mitigation: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. These features would connect to existing and proposed bikeways in the project vicinity. Such facilities would encourage walking and bicycling as well as support the reduction of greenhouse gas emissions. |
| | Policy 3.d-I-12 | Make improvements to roads, signs, and traffic signals as needed to improve bicycle travel. | Consistent With Mitigation: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. These improvements would include appropriate signs and traffic signals as necessary to improve bicycle travel. |
| | Policy 3.d-I-15 | Include evaluation of bicycle facility needs in all planning applications for new developments and major remodeling or improvement projects. | Consistent With Mitigation: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|--|--|
| | No. | Text | |
| | | | Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. |
| | Policy 3.d-I-16 | Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc. | Consistent: The proposed project would include as many as 220 dwelling units that would provide end-of-trip bicycle support facilities (e.g., garages). |
| | Policy 3.d-I-18 | Acquire adequate set backs and right of way to complete the Trails Master Plan. | Consistent With Mitigation: Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. Such improvements would be constructed with the adequate setbacks and rights-of-way. |
| | Policy 3.d-I-19 | Provide and accommodate recreational and transportation use of the trail system. | Consistent With Mitigation: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. These features would connect to existing and proposed bikeways in the project vicinity, thereby providing and accommodating both recreational and transportation use of the trail system. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---|-----------------------|---|--|
| | No. | Text | |
| | Policy 3.d-I-20 | Preserve and enhance the natural environment of the creek corridors in conjunction with each trail project. | Consistent With Mitigation: Mitigation Measure LU-2 requires the area adjacent to Ford Creek to be improved for recreational purposes, including a bicycle route to connect Railroad Avenue and Hammond Way. Implementation of such facilitates would preserve and enhance the creek corridor as feasible. |
| | Policy 3.d-I-21 | Monitor proposed developments and work with applicants to design projects that preserve the integrity of the identified trail routes. | Consistent: The project site does not contain any existing trail routes, but it would include features that would complement the existing and proposed trail routes in the project vicinity. |
| | Policy 3.d-I-23 | Use existing cul de sacs, bridges and other public improvement areas as trail access points wherever possible. | Consistent With Mitigation: Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other public streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. |
| | Policy 3.d-I-25 | Where appropriate, require new development [to] provide public access points to the trail system and/or contribute to staging areas. | Consistent With Mitigation: Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other public streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. |
| | Policy 3.d-I-27 | Require sidewalks on both sides of the street as a condition of development approval, where appropriate with local conditions. | Consistent With Mitigation: Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other public streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way). |
| 4 – Open Space and Environmental Conservation | Principle 4.a-G-1 | Provide a park and recreation system design to serve the needs of all residents of the community. | Consistent: The proposed project would include a private park and recreation amenities, including 1.2 acres of land immediately adjacent to Calaveras Boulevard at the north end |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|--|
| | No. | Text | |
| | | | of the project site for the development of a private park. The project also includes an area adjacent to the Ford Creek, which may be used for recreation purposes, including a bicycle route to connect Railroad Avenue and Hammond Way. Such features would be designed to serve the needs of all residents of the community. |
| | Principle 4.a-G-2 | Develop a diversified trail system along streamsides and other public rights of way to provide recreational opportunities and link facilities. | Consistent With Mitigation: The proposed project contemplates using the area adjacent to Ford Creek for recreational purposes, including a bicycle route to connect Railroad Avenue and Hammond Way. Mitigation Measure LU-2 is proposed requiring the applicant to install offsite sidewalks and other public streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way). |
| | Policy 4.a-I-1 | Provide 5 acres of neighborhood and community parks for every 1,000 residents outside of the Midtown Specific Plan Area, and 3.5 acres of special use parks for every 1,000 residents within the Midtown Specific Plan Area. | Consistent: The proposed project would provide 1.2 acres for the development of a private park and would pay fair-share fees for the remaining required park land in accordance with Section XI-1-9.05 of the Municipal Code. Refer to Section 3.9, Public Services and Recreation for further discussion. |
| | Policy 4.a-I-2 | For areas outside the Midtown Specific Plan Area, require land dedication or in lieu fees equivalent to the 5 acre/1,000 resident standard, but allow credit for private open space for up to 2 acres/1,000 residents for private open space provided in accordance with the criteria specified in the Subdivision Regulations. For areas within Midtown, require land dedication or in lieu fees equivalent to the 3.5 acre/1,000 resident standard, but allow credit for private open space for up to 1.5 acres/1,000 residents for private open space provided in accordance with the criteria specified in the Subdivision Regulations. | Consistent: As discussed above, the proposed project would provide 1.2 acres for the development of a private park and would pay fair-share fees for the remaining required park land in accordance with Section XI-1-9.05 of the Municipal Code. Refer to Section 3.9, Public Services and Recreation for further discussion. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|---|
| | No. | Text | |
| | Principles 4.b-G-1 | Preserve and protect populations and supporting habitat of special status species within the Planning Area, including species that are state or federally listed as Rare, Threatened, or Endangered, all federal “candidate” species for listing and other species proposed for listing, and all California Species of Special Concern. | Consistent: Nesting birds protected by the Migratory Bird Treaty Act are the only special-status species with the potential to occur on the project site. Mitigation is proposed that would require pre-construction surveys and, if necessary, avoidance of occupied nests until the birds have fledged. Refer to Section 3.3, Biological Resources for further discussion. |
| | Policy 4.b-I-4 | Require a biological assessment of any project site where sensitive species are present, or where habitats that support known sensitive species are present. | Consistent: A biologist assessed the potential for the project site to support special-status species and habitats and found that only nesting birds have the potential to occur onsite. Mitigation is proposed requiring a standard pre-construction nesting bird survey. Refer to Section 3.3, Biological Resources for further discussion. |
| | Policy 4.b-I-5 | Utilize sensitive species information acquired through biological assessments, project land use, planning and design. | Consistent: The potential for onsite sensitive species was determined through site assessment by a biologist. Refer to Section 3.3, Biological Resources for further discussion. |
| | Principle 4.d-G-1 | Assure reasonable protection of beneficial uses of creeks and South San Francisco Bay, and protect environmentally sensitive areas. | Consistent: The protection of beneficial uses of creeks and the South San Francisco Bay would be ensured through the implementation of mitigation regarding short- and long-term water quality. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Principle 4.d-G-2 | Comply with regulatory requirements pertaining to water quality. | Consistent: Mitigation proposed in this EIR would ensure the proposed project would comply with applicable regulatory requirements pertaining to water quality. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Principle 4.d-G-3 | Continuously improve implementation of stormwater pollution-prevention activities. | Consistent: Mitigation proposed in this EIR would ensure the proposed project would implement stormwater pollution prevention measures. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|---|
| | No. | Text | |
| | Principle 4.d-G-4 | Mitigate the effects that land development can have on water quality. | Consistent: Mitigation proposed in this EIR would ensure that the proposed project’s potential impacts on water quality would be mitigated. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Principle 4.d-G-5 | Protect and enhance the quality of water resources in the Planning Area. | Consistent: The proposed project would implement construction and operational stormwater quality protection measures to protect downstream water resources from pollution. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Principle 4.d-G-6 | Promote conservation and efficiency in the use of water. | Consistent: The proposed project would implement indoor water conservation measures to promote the efficient use of potable water. Refer to Section 3.9, Public Services and Utilities for further discussion. |
| | Policy 4.d-P-4 | Where consistent with other policies, preserve, create, or restore riparian corridors and wetlands. Where possible, set back development from these areas sufficiently to maximize habitat values. | Consistent: The proposed project contemplates using the area adjacent to Ford Creek for recreational purposes, thereby preserving the riparian corridor. |
| | Policy 4.d-P-8 | Applicable projects shall incorporate facilities (BMPs) to treat stormwater before discharge from the site. The facilities shall be sized to meet regulatory requirements. | Consistent: Mitigation included in this EIR would ensure that appropriate stormwater facilities would be incorporated into the proposed project. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Policy 4.d-P-9 | Applicable projects shall control peak flows and duration of runoff where required to prevent accelerated erosion of downstream watercourses. | Consistent: The proposed project would not increase the amount of runoff leaving the project site; therefore, it would not have the potential to contribute to downstream flooding conditions. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Policy 4.d-P-12 | Construction sites shall incorporate measures to control erosion, sedimentation, and the generation of runoff pollutants to the maximum extent practicable. The Design, scope and location of grading and | Consistent: Mitigation included in this EIR would ensure that the proposed project would incorporate erosion, sedimentation, and runoff pollution control measures. Refer to Section 3.6, Hydrology and Water |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|--|---|
| | No. | Text | |
| | | related activities shall be designed to cause minimum disturbance to terrain and natural features. (Title II, Chapter 13 of the Municipal Code includes requirements for control of erosion and sedimentation during grading and construction.) | Quality for further discussion. Because the project site is currently used for industrial purposes, minimal grading would be required. |
| | Action 4.d-A-10 | Require developers of applicable projects to submit, with application for planning and zoning approval, a Stormwater Control Plan detailing the required stormwater pollution prevention and flow control measures incorporated into the project. | Consistent: Mitigation Measure HYD-2 would require the project applicant to submit a stormwater management plan prior to the issuance of building permits. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Action 4.d-A-11 | Require developers of applicable projects to prepare and submit, prior to final approval of construction, a Stormwater Control Operation and Maintenance Plan detailing maintenance requirements and methods for the stormwater treatment and flow control facilities incorporated into the project. | Consistent: Mitigation Measure HYD-2 would require the project applicant to submit a stormwater management plan prior to the issuance of building permits. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Action 4.d-A-12 | When conducting environmental reviews of proposed projects, evaluate water quality effects and identify appropriate mitigation measures. | Consistent: The proposed project’s potential effects on water quality have been evaluated as a part of this EIR. Mitigation is proposed as appropriate to minimize impacts. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Policy 4.g-I-2 | Permit clustering of structures, in order to preserve open space while providing for desired development. | Consistent: The proposed project’s dwelling units are compact in design, thereby allowing for the provision of 1.2 acres of private open space on the project site. |
| | Policy 4.g-I-7 | Ensure that all landscaping within and adjoining a Scenic Corridor or Scenic Connector: <ul style="list-style-type: none"> • Enhances the City’s scenic resources by utilizing an appropriate scale of planting, framing views where appropriate, and not forming a visual barrier to views; • Relates to the natural environment of the Scenic Route; and • Provides erosion control | Consistent: The project site is located adjacent to Calaveras Boulevard, which is a Scenic Connector. The proposed project would include landscaping throughout as required by the Milpitas Municipal Code. A private open space area of 1.2 acres would be provided on the project site directly adjacent to Calaveras Boulevard. Because of Calaveras Boulevard’s elevation above the project site and its east-west |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|--|---|
| | No. | Text | |
| | | | orientation, it is not anticipated that landscaping would form a visual barrier to views of the foothills as seen from the roadway. |
| | Principle 4.h-G-1 | Undertake efforts to reduce the generation of waste, increase recycling and slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989. | Consistent: Mitigation is proposed that would require the project applicant to recycle construction and demolition debris and provide onsite recycling facilities. These measures would be in accordance with the California Integrated Waste Management Act. Refer to Section 3.11, Utility Systems for further discussion. |
| | Policy 4.h-I-1 | Implement measures specified in the City’s Source Reduction and Recycling Element and the City’s Household Hazardous Waste Element. | Consistent: Mitigation is proposed that would require the project applicant to recycle construction and demolition debris and provide onsite recycling facilities. These measures are consistent with objectives of the City’s Source Reduction and Recycling Element. Refer to Section 3.11, Utility Systems for further discussion. |
| | Principle 5.a-G-1 | Minimize threat to life and property from seismic and geologic hazards. | Consistent: The proposed project would comply with the applicable seismic design criteria contained in the California Building Standards Code and, therefore, would minimize the threat to life and property from seismic and geologic hazards. |
| | Policy 5.a-I-3 | Require projects to comply with the guidelines prescribed in the City’s Geotechnical Hazards Evaluation manual. | Consistent: A Geotechnical Report is required prior to the issuance of building permits and in accordance with Municipal Code Section XI-1-8.01. Through the incorporation of the guidelines and recommendations from the Geotechnical Hazards Evaluation manual and Geotechnical Report, the proposed project would be consistent with this policy. Refer to Section 7.0, Effects Found Not To Be Significant for further discussion. |
| | Principle 5.b-G-1 | Minimize threat to life and property from flooding and dam inundation. | Consistent: The project site is not located in an area identified by the Milpitas General Plan as subject to flooding and dam inundation. Refer to Section 7.0, Effects Found Not To Be Significant for further discussion. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|---|
| | No. | Text | |
| | Policy 5.b-I-1 | <p>Ensure that new construction or substantial improvements to any existing structure result in adequate protection from flood hazards. This includes ensuring that:</p> <ul style="list-style-type: none"> • New residential development within the 100-year Flood Zone locate the lowest floor, including basement, above the base flood elevation; and • New non-residential development locate the lowest floor, including basement, above the base flood elevation or incorporate flood-proofing and structural requirements as spelled out in the Municipal Code. | <p>Consistent: The project site is not located within a 100-year flood zone. Refer to Section 7.0, Effects Found Not To Be Significant for further discussion.</p> |
| | Principle 5.c-G-1 | <p>Provide high quality, effective and efficient fire protection services for the Milpitas area residents.</p> | <p>Consistent: The Milpitas Fire Department indicated that adequate resources are available to maintain levels of fire services and other emergency services. Refer to Section 3.9, Public Services and Recreation for further discussion.</p> |
| | Principle 6-G-1 | <p>Maintain land use compatibility with noise levels similar to those set by State guidelines.</p> | <p>Consistent: The proposed project’s noise levels would not exceed the State’s land use compatibility noise standards. Refer to Section 3.8, Noise for further discussion.</p> |
| | Principle 6-G-2 | <p>Minimize unnecessary, annoying, or injurious noise.</p> | <p>Consistent: The proposed project’s construction and operational activities would not result in significant noise impacts at nearby land uses. Therefore, unnecessary, annoying, or injurious noise impacts would not occur. Refer to Section 3.8, Noise for further discussion.</p> |
| | Policy 6-I-1 | <p>Use the guidelines in Table 6-1 (Noise and Land Use Compatibility) [General Plan Noise Element] as review criteria for development projects.</p> | <p>Consistent: The proposed project’s noise impacts were assessed against the guidelines in General Plan Table 6-1 and were found to be consistent with the land use compatibility standards. Refer to Section 3.8, Noise for further discussion.</p> |
| | Policy 6-I-2 | <p>Require an acoustical analysis for projects located within a “conditionally acceptable” or “normally unacceptable” exterior</p> | <p>Consistent: An acoustical analysis was prepared as part of this EIR and evaluated potential noise impacts against the standards set forth in the</p> |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|---|--|
| | No. | Text | |
| | | noise exposure area. Require mitigation measures to reduce noise to acceptable levels. | General Plan. Refer to Section 3.8, Noise for further discussion. |
| | Policy 6-I-3 | Prohibit new construction where the exterior noise exposure is considered “clearly unacceptable” for the use proposed. | Consistent: As shown in Exhibit 3.8-2, the project site is exposed to noise levels between 60 to 70 dBA L _{dn} , which is considered acceptable by the General Plan for new residential uses. Accordingly, the proposed project would not be located in an area where the exterior noise exposure is considered “clearly unacceptable” for the use proposed. Refer to Section 3.8, Noise for further discussion. |
| | Policy 6-I-4 | Where actual or projected rear yard and exterior common open space noise exposure exceeds the “normally acceptable” levels for new single-family and multifamily residential projects, use mitigation measures to reduce sound levels in those areas to acceptable levels. | Consistent: The EIR evaluated exterior noise levels and found that noise barriers were necessary to achieve acceptable noise levels. Refer to Section 3.8, Noise for further discussion. |
| | Policy 6-I-5 | All new residential development (single family and multifamily) and lodging facilities must have interior noise levels of 45 dB DNL or less. Mechanical ventilation will be required where use of windows for ventilation will result in higher than 45 dB DNL interior noise levels. | Consistent: The EIR evaluated exterior noise levels and found that noise barriers were necessary to achieve acceptable noise levels. Refer to Section 3.8, Noise for further discussion. |
| | Policy 6-I-7 | Avoid residential DNL exposure increases of more than 3 dB or more than 65 dB at the property line, whichever is more restrictive. | Consistent: This EIR evaluated the potential for nearby residential areas to be exposed to DNL increases of more than 3 dB or more than 65 dB at the property line and found that noise barriers were necessary to achieve acceptable noise levels. Refer to Section 3.8, Noise for further discussion. |
| | Policy 6-I-9 | Enforce the provisions of the City of Milpitas Noise Ordinance and the use of established truck routes. | Consistent: The noise analysis in this EIR identifies applicable portions of the Milpitas Noise Ordinance. Refer to Section 3.8, Noise for further discussion. |
| | Policy 6-I-10 | Reduce the noise impact in existing residential areas where feasible. | Consistent: The proposed project’s would not expose existing residential |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------------------|-----------------------|--|--|
| | No. | Text | |
| | | Noise mitigation measures should be implemented with the cost shared by public and private agencies and individuals. | land uses to excessive noise levels. Refer to Section 3.8, Noise for further discussion. |
| | Policy 6-I-13 | Restrict the hours of operation, technique, and equipment used in all public and private construction activities to minimize noise impact. Include noise specifications in requests for bids and equipment information. | Consistent: As a standard condition of approval, the proposed project would be subject to these noise abatement requirements. Note that the proposed project's construction and operational activities would not result in significant noise impacts at nearby land uses. Refer to Section 3.8, Noise for further discussion. |
| | Policy 6-I-15 | Promote installation of noise barriers along highways and the railroad corridor where substantial land uses of high sensitivity are impacted by unacceptable noise levels. | Consistent: A sound barrier is proposed along the property boundary with the Union Pacific Warm Springs Subdivision to achieve acceptable noise levels. |
| 7 - Housing Element | Goal G-1 | Provide adequate sites for housing development in the city of Milpitas. | Consistent: The proposed project would provide additional single-family dwellings and townhomes within the City of Milpitas. This EIR has found that the project site is suitable to support residential uses and, therefore, the proposed project would further this goal. |
| | Policy A-2 | While the City is able to accommodate its share of the regional housing need without rezoning during the current Housing Element period, it has demonstrated a willingness to consider land use redesignation in order to accommodate specific project. The City will consider land use redesignations if they are needed. | Consistent: The proposed project would provide additional single-family dwelling and townhome housing opportunities within the City of Milpitas, consistent with the Midtown Specific Plan and applicable General Plan policies. As such, it could be considered by the City to be consistent with Policy A-2. |
| | Goal B-1 | Maintain high quality residential environments. | Consistent: The proposed project would provide additional residential development consistent with the Midtown Specific Plan design guidelines and development standards as well as the applicable Municipal Code development standards. As such, a high-quality residential environment would be maintained. |

Table 3.8-2 (cont.): General Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---------|-----------------------|--|---|
| | No. | Text | |
| | Goal C-1 | Facilitate new housing production. | Consistent: As noted previously, the proposed project would provide new single-family dwellings and townhomes within the City of Milpitas. |
| | Goal D-1 | Promote housing affordability for both renters and homeowners. | Consistent: The proposed single-family dwellings and townhomes would be “for sale” units and, therefore, available for purchase. Additionally, homeowners would have the ability to rent out units. As such, the proposed project would further the goal of promoting housing affordability for both renters and homeowners. |
| | Goal D-3 | Support housing diversity and creativity in residential development. | Consistent: The proposed project would feature single-family dwelling units and townhome dwelling units. Additionally, a 1.2-acre private park would be included as part of the project to provide recreational opportunities to future residents. These characteristics would further the goal of supporting housing diversity and creativity in residential development. |
| | Policy D-8 | The City will continue to encourage developers to provide new units that meet the needs of both very small and large households. In reviewing proposed projects, City staff shall attempt to obtain the inclusion of studio and four-bedroom units in new projects as feasible through incentives, including financial and regulatory. | Consistent: The proposed project would include a mix of single-family and townhome dwelling units intended to meet the needs of a range of household sizes. |
| | Goal F-1 | Promote energy conservation in residential development. | Consistent: The proposed project would comply with Title 24. Further, the project would implement a number of design features and mitigation measures to reduce energy and water consumption. Refer to Section 6, Other CEQA for further discussion. |

Source: Milpitas General Plan, 2010; MBA, 2012.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM LU-2 Prior to issuance of certificate of occupancy for the first production unit, the project proponent shall commence construction of the offsite improvements, including sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way), to improve bicycle and pedestrian circulation and safety in the project vicinity. These features would connect to existing and proposed bikeways in the project vicinity, thereby providing and accommodating both recreational and transportation uses of the trail system. The project shall construct the onsite improvements including the area adjacent to Ford Creek for recreational purposes, including a bicycle route to connect Railroad Avenue and Hammond Way. Implementation of such facilities would provide recreational opportunities and link facilities.

Level of Significance After Mitigation

Less than significant impact.

Specific Plan Consistency

Impact LU-3: The proposed project may conflict with the applicable provisions of the Midtown Specific Plan.

Impact Analysis

The Midtown Specific Plan serves as the zoning for the project site and consists of eight elements. The proposed project would require a Specific Plan Amendment, which is evaluated in detail below. In addition, the proposed project’s consistency with the applicable goals and policies of the Specific Plan is considered.

Specific Plan Land Use Designation Consistency Analysis

The project site is designated “Manufacturing and Warehouse” by the Specific Plan. However, a Specific Plan Amendment is proposed to change the land use designation from “Manufacturing and Warehouse” to “Multi-Family Residential High Density” for the residential component of the development and “Parks and Recreation” for the private open space area and proposed trail along Ford Creek. As discussed above, this would provide recreational opportunities to future residents consistent with the Specific Plan goals and policies, while also providing a range of housing options at the project site. The residential uses for the proposed project are consistent with the Specific Plan’s prescribed uses and density for the Multi-Family Residential High Density land use designation.

Specific Plan Goals and Policies Consistency Analysis

Table 3.8-3 summarizes the proposed project’s consistency with all applicable goals and policies of the Specific Plan. As shown in the table, the proposed project is consistent with all applicable goals

and policies. The project proposes a rezone to Multi-Family High Density Residential (R3). Accordingly, development standard consistency is discussed under Municipal Code Consistency (LU-4) below, since the Midtown Specific Plan Design Guidelines and Development Standards do not apply to the Multi-Family High Density Residential (R3) zoning district. Impacts would be less than significant.

Table 3.8-3: Midtown Specific Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|--------------|-----------------------|---|--|
| | No. | Text | |
| 3 – Land Use | Goal 1 | Encourage a compatible mixture of residential, retail, office, service-oriented commercial and industrial uses within the Midtown Area. | Consistent: The proposed project consists of a 220-dwelling unit residential development. The development would be compatible with the neighboring commercial and industrial land uses. |
| | Goal 2 | Provide for a significant component of new housing within the area in order to: improve the vitality of the Midtown Area; address local and regional housing needs; and reinforce the use of transit. | Consistent: The proposed project would provide up to 220 dwelling units. Moreover, the subject site is located within the vicinity of the Bay Area Rapid Transit (BART) extension from Warm Springs (Fremont) to San Jose that is currently under construction. |
| | Goal 3 | Promote an intensity of development in the Midtown Area that is appropriate to its central location. | Consistent: As many as 220 dwelling units would be developed on the site. As discussed above, the development would be located near existing and proposed transit services as well as commercial uses. |
| | Policy 3.1 | Allow for up to 1,100 new housing units in Milpitas Midtown. | Consistent: The proposed project would provide up to 220 dwelling units in Midtown, consistent with this policy. |
| | Policy 3.9 | Establish a “Future Study Area” on a portion of the rail yards (between Calaveras Boulevard and the Hetch Hetchy right-of-way). Maintain the current manufacturing and warehousing zoning within the Future Study Area and re-zone the area upon resolution of circulation and access issues. | Consistent: The requested rezone and associated development would include mitigation measures to address circulation and access issues. Refer to Section 3.9, Transportation for further discussion. |
| | Policy 3.23 | Require public parks and open space as conceptually located in Figure 3.2. Park size, design, and layout will be determined through the development review process. | Consistent: The proposed project would include a 1.2-acre private park as well as a trail along Ford Creek. |

Table 3.8-3 (cont.): Midtown Specific Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|----------------|-----------------------|--|--|
| | No. | Text | |
| 4– Circulation | Goal 1 | Improve the viability of the pedestrian, bicycle and transit systems. | Consistent: The proposed project would provide an onsite network of internal bicycle and pedestrian facilities that would be linked to Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 requires the project applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. These features would connect to existing and proposed bikeways in the project vicinity. Additionally, the project is located near existing and proposed transit services. As such, the proposed project would be consistent with the objective of improving the viability of pedestrian, bicycle, and transit systems. |
| | Policy 4.5 | Maintain an interconnected pattern of streets within the Midtown Area. More specifically, streets developed to serve new developments should be pedestrian in scale and interconnected with the existing street system (see Figure 4.3). | Consistent: The proposed project would implement mitigation measures to mitigate for its impact on intersection operations, roadway operations, and queuing. This mitigation would contribute to maintaining an interconnected pattern of streets within the Midtown Area. Refer to Section 3.9, Transportation for further discussion. |
| | Policy 4.9 | Continue to require site specific traffic studies for each proposed new development that would generate more than 100 trips, in conformance with existing congestion management procedures. | Consistent: Hexagon Transportation Consultants evaluated the proposed project’s traffic impacts in a Traffic Impact Analysis that was prepared in accordance with CMP guidelines. The findings of the analysis are summarized in Section 3.9, Transportation. |
| | Policy 4.14 | Require a public access easement through new developments, when necessary, to ensure that public parks and the City’s trail network are accessible to the general public. | Consistent: The proposed project includes using the area adjacent to Ford Creek for recreational purposes, including a bicycle route to connect Railroad Avenue and Hammond Way. In addition, Mitigation Measure LU-2 requires |

Table 3.8-3 (cont.): Midtown Specific Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|-----------------------------------|-----------------------|--|---|
| | No. | Text | |
| | | | the project applicant to install offsite sidewalks and other streetscape improvements along Railroad Avenue, Hammond Way, and Sinnott Lane (east of Hammond Way) to improve bicycle and pedestrian circulation and safety in the project vicinity. |
| 6 – Utilities and Public Services | Policy 6.2 | Reduce water consumption through a program of water conservation measures, such as use of recycled water, water saving fixtures, and drought-tolerant landscaping. | Consistent: The proposed project would implement a variety of water conservation design features and mitigation measures, including those identified in Policy 6.2. |
| | Policy 6.8 | Encourage creativity in design of new development in order to reduce stormwater runoff, increase percolation, and improve water quality. | Consistent: Mitigation included in this EIR would ensure that appropriate stormwater facilities would be incorporated into the proposed project. Refer to Section 3.6, Hydrology and Water Quality for further discussion. |
| | Policy 6.10 | Require project developers to coordinate with the appropriate service providers to provide electrical, gas and telecommunications services to new development. | Consistent: The proposed project would coordinate with the appropriate service providers concerning electricity, gas, and telecommunications services. Refer to Section 3.11, Utility Systems for further discussion. |
| | Policy 6.11 | Incorporate energy saving devices into new development in order to promote energy conservation. | Consistent: The proposed project would comply with Title 24. Further, the project would implement a number of design features and mitigation measures to reduce energy and water consumption. Refer to Section 6, Other CEQA for further discussion. |
| | Policy 6.12 | Require the undergrounding of new utilities. | Consistent: The proposed project would include the undergrounding of utilities. |
| | Policy 6.18 | Promote recycling of construction and demolition debris. | Consistent: Mitigation is proposed that would require the project applicant to recycle construction and demolition debris and provide onsite recycling facilities. These measures would be in accordance with the California Integrated Waste Management Act. Refer to Section 3.11, Utility Systems for further discussion. |

Table 3.8-3 (cont.): Midtown Specific Plan Consistency Analysis

| Element | Goal/Objective/Policy | | Consistency Determination |
|---|-----------------------|--|--|
| | No. | Text | |
| | Policy 6.19 | Ensure that adequate Fire, Police and Emergency Services are in place to serve new development in Midtown. | Consistent: As concluded by the Fire Department and Police Department, adequate emergency services would be available to serve the proposed project. Refer to Section 3.9, Public Services and Recreation for further discussion. |
| Source: Midtown Specific Plan, 2008; MBA, 2012. | | | |

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure LU-2.

Level of Significance After Mitigation

Less than significant impact.

Municipal Code Consistency

Impact LU-4: The proposed project would be consistent with the applicable policies of the Milpitas Municipal Code.

Impact Analysis

The Milpitas Municipal Code’s provisions related to zoning development standards and parking are relevant to the proposed project. (Note that the Midtown Specific Plan serves as the zoning for the project site.) Project consistency with each is discussed below.

Zoning Ordinance

Multi-Family High Density Residential (R3) with Site and Architectural Overlay (R3) Zoning District Development Standards

The Multi-Family High Density Residential (R3) zoning district development standards permit the proposed residential uses subject to a Conditional Use Permit. The height of the proposed project’s residential units would be within the Zoning Ordinance’s allowable limit, since it would not exceed 35 feet. Additionally, the proposed lot area, width, and setbacks would conform to the applicable development standards. The proposed density of 15.5 units per gross acre is within the allowable range of 12 to 20 units per gross acre authorized under the R3 zoning district.

As shown on the conceptual site plan in Exhibit 2-4, landscaping and open space consistent with XI-10-4.05.C of the Municipal Code would be provided. Underground utilities and trash and storage areas that are consistent with the Municipal Code requirements would also be provided.

Park and Public Open Space (POS) District Zoning District Development Standards

The Park and Public Open Space (POS) zoning district development standards permit the proposed trail uses. No structures are proposed within these areas that would exceed the maximum allowable height of 30 feet. Pursuant to section XI-10-39.06 of the Municipal Code, off-street parking is not required for the proposed uses.

Parking Standards

Milpitas Municipal Code Section 53 requires that multi-family uses within the R3 zoning district provide a minimum of 1.5 covered parking spaces for one-bedroom units, 2 covered parking spaces for two- to three-bedroom units, and 3 parking spaces (at least 2 must be covered) for four-bedroom units. Although specific bedroom design information for the proposed 220 dwelling units remains undefined at this time, sufficient space would be available within the site, as illustrated on the conceptual site plan, to accommodate the required parking stalls, including bicycle parking. A final parking compliance determination would occur prior to site development permit approval.

As discussed above, off-street parking would not be needed for the proposed trail uses.

Conclusion

The proposed project would be consistent with the applicable provisions of the Milpitas Municipal Code. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

