

Appendix A

Initial Study



Cochrane Commons Phase II Project

Initial Study

prepared by

City of Morgan Hill

17575 Peak Avenue

Morgan Hill, California 95037

Contact: Jennifer Carman, Development Services Director

prepared with the assistance of

Rincon Consultants, Inc.

449 15th Street, Suite 303

Oakland, California 94612

May 2022



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

rinconconsultants.com

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Appendix CUL	Cultural Resources Report
Appendix EN	Energy Calculation Sheets
Appendix WSA	Water Supply Assessment

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Initial Study

1. Project Title

Cochrane Commons Phase II Project

2. Lead Agency Name and Address

City of Morgan Hill
17575 Peak Avenue
Morgan Hill, California 95037

3. Contact Person and Phone Number

Jennifer Carman, Development Services Director, 408-778-6480

4. Project Location

The project site is located at the southwest corner of Mission View Drive and Cochrane Road in the City of Morgan Hill. The site is approximately 33.5 acres and is located just north of Phase I of the Cochrane Commons Shopping Center (Shopping Center). It is bound by De Paul Drive to the south, Cochrane Road to the east, Mission View Drive to the north, and adjacent agriculture, single-family residential, and industrial development to the west. The site is located on the northern edge of the City of Morgan Hill and is approximately 800 feet north of U.S. Highway 101 (U.S. 101). Figure 1 shows the site's location in the region, and Figure 2 depicts the project site in its neighborhood context.

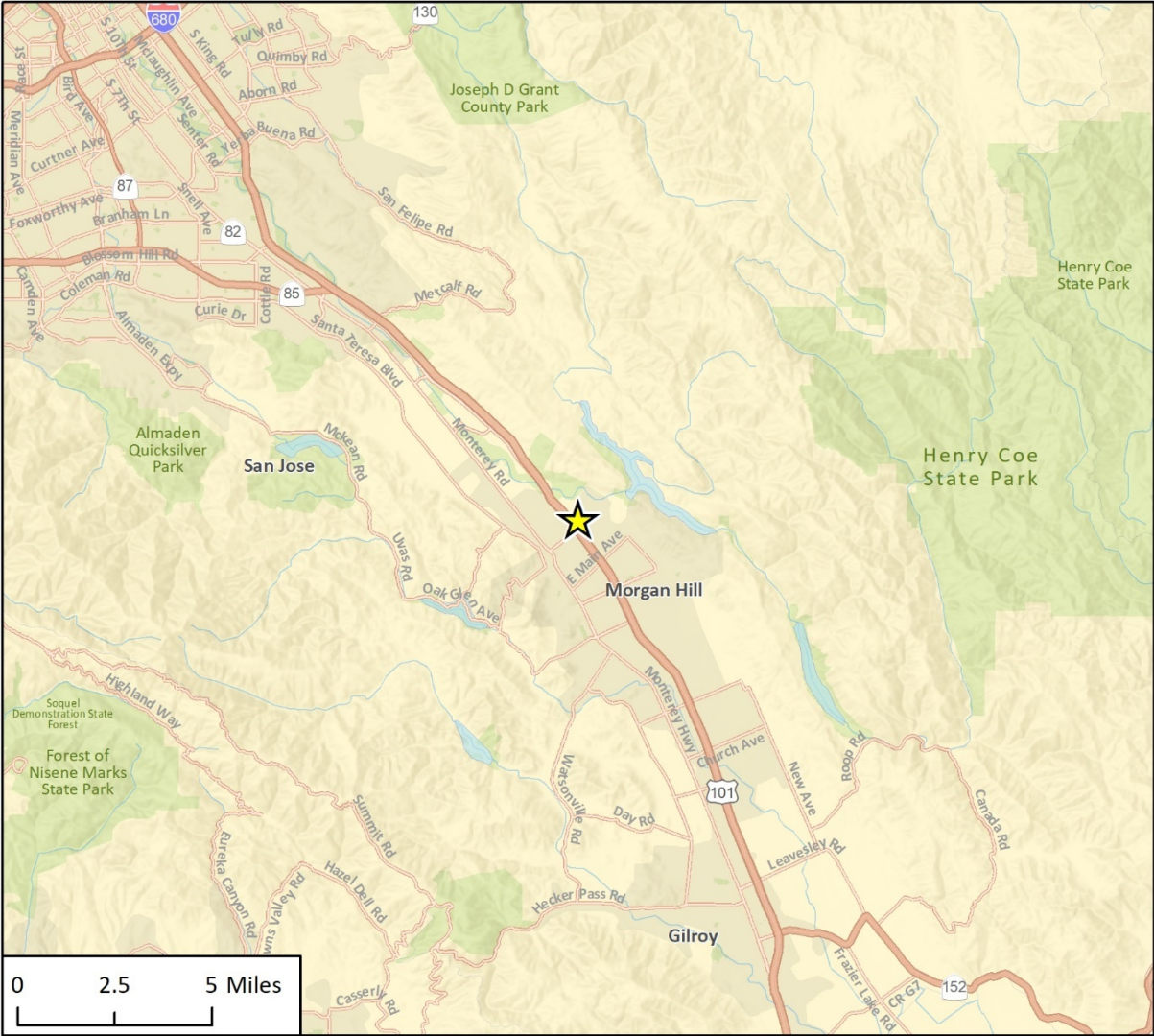
5. Project Sponsor's Name and Address

Browman Development
1556 Parkside Drive
Walnut Creek, California 94596

6. General Plan Designation

The project site is split between two City of Morgan Hill 2035 General Plan land use designations. The majority of the northwest corner of the site is designated Mixed Use Flex (7 to 24 dwelling units/acre) (with the remainder designated Commercial. The Commercial designation allows a wide range of retail businesses, administrative and executive office uses, and professional services, either in standalone buildings or as part of shopping centers. It allows a maximum floor area ratio of 0.6. The Mixed Use Flex designation allows for a mix of residential, commercial, and office uses, with 7 to 24 dwelling units per acre and a maximum floor area ratio of 0.5. (Morgan Hill 2016).

Figure 1 Regional Location



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★ Project Location

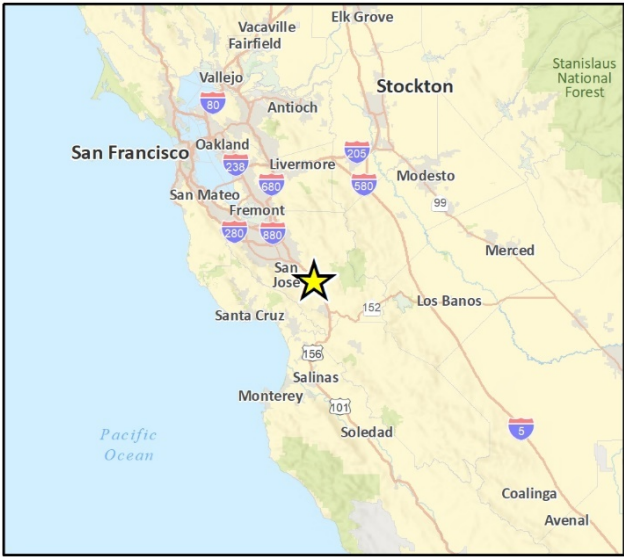


Fig X Regional Location

Figure 2 Project Site Location

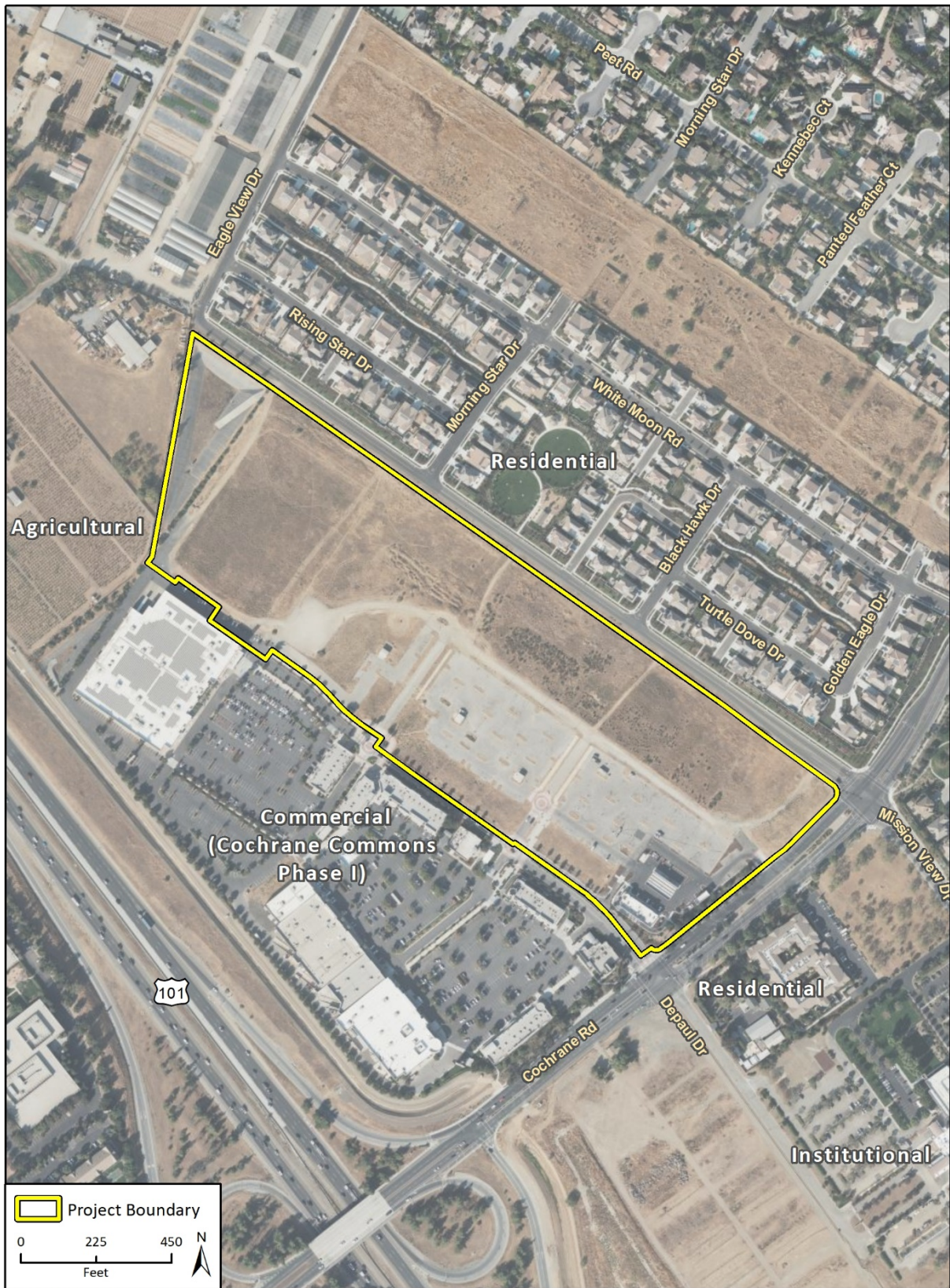


Fig 1 Project Location 20200114

7. Zoning

The project site is zoned as Highway Commercial (CH), which seeks to provide areas adjacent to the freeway that can accommodate highway and tourist-oriented uses, and allows for business services, restaurants and cafes, hotels, offices, retail services, and other related facilities (Morgan Hill 2018). The project site also has a Planned Unit Development (PUD) Legacy Zone, which is a zoning district applied to the property prior to July 7, 2018, and remains the zoning in effect for the property (Morgan Hill 2018).

8. Project Background

In 2005, an Environmental Impact Report (EIR) was certified for the Cochrane Commons Shopping Center, a project that included development of 590,100 square feet of retail space, a 12-pump gas station, and a 63,200-square-foot movie theatre. The project was proposed to be built out in two phases, with the first phase covering the southwest portion of the site and the second phase (the project that is the subject of this Initial Study) covering the northeast portion of the site. The 2005 EIR analyzed both phases of the project. Construction of Phase I of the project was completed in 2007, consisting of 262,560 square feet of commercial retail, including a 127,732-square-foot Target store. Two commercial structures were also constructed on the eastern portion of the project site in the Phase II area and are currently occupied by a gas station and fast-food restaurant. In total, 303,429 square feet of retail space has been constructed, along with the gas station.

9. Surrounding Land Uses

The project site is located in an urbanized area and is generally flat. There are two existing commercial structures in the southern portion of the site, which are occupied by a gas station and a Burger King restaurant. The central and southern areas of the site are developed with parking lots, roadways, and paved areas, as shown in Figure 2. Street trees are planted along Cochrane Road, fronting Burger King, the gas station, and De Paul Drive along the southern portion of the site. The southeast corner of the site, near the two existing commercial tenants, is landscaped with ornamental trees and shrubs. The remainder of the site is undeveloped and contains ruderal vegetation, primarily mowed grasses and shrubs.

Parcels to the east of the project site have a land use designation of Commercial and Commercial/Industrial and are zoned as General Commercial and Public Facilities with a PUD overlay. Parcels south of the project site include Phase I of the Shopping Center, which has a Commercial land use designation and is zoned CH with the PUD overlay. Parcels west of the site are located in Santa Clara County and Morgan Hill's sphere of influence. These parcels have a land use designation of Rural County. Parcels to the north of the site have a land use designation of Residential Detached Medium (up to 7 dwelling units/acre) and are zoned Residential Detached Medium Density (RDM 9,000 or 7,000) with a Planned Development overlay.

Surrounding development includes detached single-family houses to the north, senior living apartments to the east, commercial retail within Phase I of the Shopping Center to the south, and single-family and industrial structures within agricultural operations to the west. Buildings range in height from one to two stories.

10. Description of Project

The project would involve construction of Phase II of the Cochrane Commons development on the undeveloped site adjacent to the completed Phase I. The Phase II project currently proposed is different from the originally proposed Phase II that was analyzed in the 2005 EIR. The project would consist of 498 residential units, consisting of a mix of townhomes and apartments, 135,000 square feet of retail space, a 140-room hotel, and amending the zoning and General Plan designation to Mixed Use Flex for the Phase II development area. The residential uses would be located in the northern and middle portion of the project site, and the hotel and commercial retail would be located in the southern portion. Figure 3 shows the proposed site plan. Table 1 details the breakdown of proposed uses and square footage, and Table 2 compares the proposed project to the project analyzed in the 2005 EIR.

The project would also include various onsite amenities for residents. A courtyard with outdoor open space would be provided near the proposed apartment units. A clubhouse, recreation hall, and swimming pool would also be provided for onsite residents.

Table 1 Project Summary

Project Component	Size or Unit Amount
Residential	
Townhomes/Apartments	498
Commercial	
Hotel	140 rooms
Retail	135,000 square feet
Mixed Use Flex Zoning Standards	
Maximum Floor Area Ratio	0.5
Maximum Height	35 feet
Residential Densities	7 to 24 units per acre
Maximum Building Coverage	50%

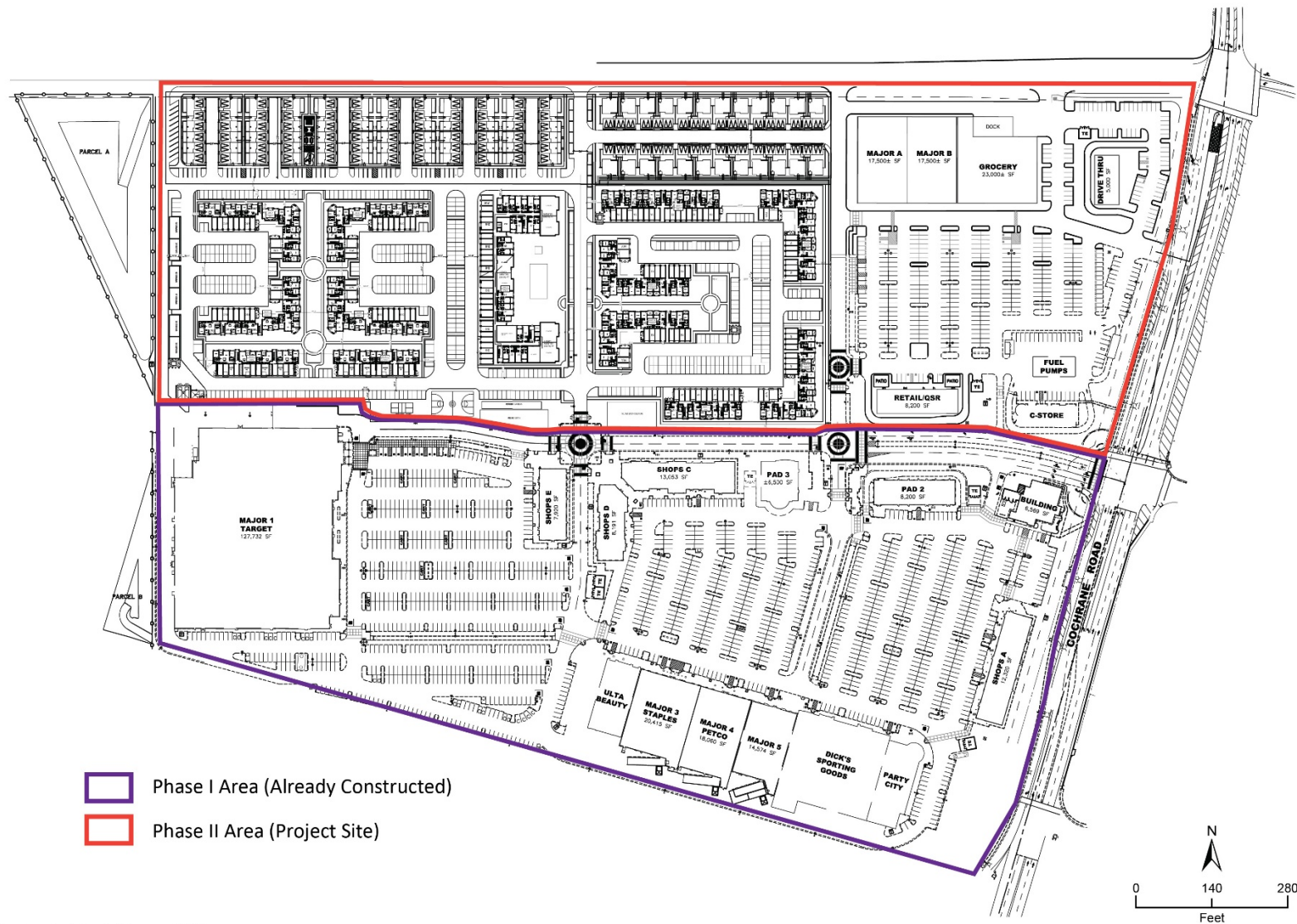
Table 2 Comparison to 2005 EIR

Project Component	Proposed in 2005 EIR	Difference Between 2005 EIR Project and Existing Plus Proposed Project
Residential	None	+498 dwelling units (Phase II)
Hotel	None	+140 rooms (Phase II)
Retail	657,250 square feet (over Phase I and Phase II)	-259,690 square feet (over Phase I and Phase II)

Site Access, Circulation, and Parking

Vehicles would access the project site primarily from De Paul Drive, which bisects the site horizontally from Cochrane Road. Access would be taken from two driveways off De Paul Drive leading to two central roadways which would connect to two driveways off Mission View Drive, as shown in Figure 3. An additional driveway would be located off Cochrane Road which would allow right-in and right-out vehicle movements. There would be a total of 1,367 parking spaces. Parking would be constructed in phases. During Construction Phase 1, the project would include 276 parking stalls for the proposed townhomes. During Construction Phase 2, 658 stalls would be added for the

Figure 3 Proposed Conceptual Site Plan



Source: Architects Orange, 2022.

rental apartment units, and during Construction Phase 3, 433 stalls would be added for the proposed retail uses and hotel.

Grading and Drainage

The project area has been previously graded and would further be modified by additional grading with excavation estimated at 37,510 square feet and balanced onsite fill. Stormwater drainage would be directed to catch basins located throughout the project site and then conveyed via underground storm drainpipes to a stormwater detention pond along the northern project boundary. The storm drain system design would incorporate City standards for pipe sizes, maximum slopes, minimum flow velocities, and pipe material. The detention basin would be sized in accordance with the City's detention design criteria. Stormwater would be temporarily stored in the planned detention pond and pumped to the adjacent Cochrane Channel at discharge rates at or below pre-development levels, as required by the Santa Clara Valley Water District.

Landscaping and Trees

The project would involve new landscaping elements, including trees and vegetation along Mission View Drive and Cochrane Road, shrubs along the building perimeters and trees in parking areas. Additional trees and landscaping would be located in building courtyards. The landscaping plan would be subject to review and approval by the City during the Design Permit process.

Electricity

Pursuant to Chapter 15.63 of the Morgan Hill Municipal Code, new residences and structures developed under the proposed project would not utilize natural gas and would be designed to be all-electric. The project would also be designed to exceed Title 24 Building Energy Efficiency Standards, which establish energy and water efficiency requirements for newly constructed buildings. However, the percentage by which standards would be exceeded is still to be determined.

Offsite Improvements

The project would include sidewalk and pavement improvements along road frontages that border the project site.

Construction

Construction would occur over three phases. Construction Phase 1 would consist of 104 units (175,000 square feet) of for-sale townhomes. Construction Phase 2 would consist of 394 units (410,000 square feet) of rental apartments. Construction Phase 3 would consist of the retail space and hotel. Construction would occur from March 2023 to September 2025 between the hours of 7 a.m. and 5 p.m. from Monday to Saturday. The construction schedule is detailed in Table 3. Construction would include 37,510 cubic yards of excavation, with balanced cut and fill.

Table 3 Proposed Construction Schedule

Phase of Construction	Dates	Phase 1	Phase 2	Phase 3
Site Preparation	Start Date:	3/2023 –	3/2024 –	3/2025 –
	End Date:	4/2023	4/2024	4/2025
Grading	Start Date:	5/2023 –	5/2024 –	5/2025 –
	End Date:	6/2023	6/2024	6/2025
Building Construction	Start Date:	7/2023 –	7/2024 –	4/2025 –
	End Date:	3/2025	11/2024	8/2025
Paving	Start Date:	6/2023 –	6/2024 –	6/2025 –
	End Date:	7/2023	7/2024	7/2025
Completion date for all construction: 9/2025				

11. Other Public Agencies Whose Approval is Required

The project would require discretionary approval by the City of Morgan Hill. No other public agency approval would be required.

12. Have California Native American Tribes Traditionally
 and Culturally Affiliated with the Project Area
 Requested Consultation Pursuant to Public
 Resources Code Section 21080.3.1?

Tamien Nation requested consultation pursuant to Public Resources Code Section 21080.3.1. Subsequent outreach and consultation has occurred and is summarized in Section 18, *Tribal Cultural Resources*.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that requires further study beyond the impacts identified in the certified 2005 EIR, as indicated by the checklist on the following pages. The checklist is a modified version of the California Environmental Quality Act (CEQA) *Guidelines* Appendix G Initial Study checklist, based on evaluating the need for supplemental CEQA documentation under *CEQA Guidelines* Section 15162, and oriented to identifying topics requiring further analysis in a Subsequent EIR. The following impact areas were determined to have at least one impact identified as “Potentially Significant” or “Less than Significant with Mitigation Incorporated” where new mitigation not included in the 1997 EIR may be required:

- | | | |
|--|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology and Soils | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

Determination

Based on this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

- I find that the proposed project MAY have a “potentially significant impact” or “less than significant with mitigation incorporated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. A SUBSEQUENT ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

Signature

Date

Printed Name

Title

Environmental Checklist

1 Aesthetics

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
--	--	--	--	---	--

Except as provided in Public Resources Code Section 21099, would the project:

- | | | | | | |
|---|---------------------------------|----|----|----|-----|
| a. Have a substantial adverse effect on a scenic vista? | EIR Page 3.1-11 | No | No | No | N/A |
| b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | EIR Page 3.1-11 | No | No | No | N/A |
| c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized | EIR Pages 3.1-11 through 3.1-14 | No | No | No | Yes |

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
area, would the project conflict with applicable zoning and other regulations governing scenic quality?					
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	EIR Pages 3.1-14 and 3.1-15	No	No	No	Yes

2005 EIR Summary

Section 3.1, *Aesthetics*, of the 2005 EIR analyzed the impacts of the project on aesthetics and visual character of the existing environmental setting. The section identifies the primary visual and aesthetic concerns of the area, including the change in character of the project site from rural residential and agricultural uses to commercial uses, and the potential impacts to views from adjacent viewpoints, including US 101, the Cochrane Road interchange, and surrounding properties. This section identifies the following scenic resources in the project area: the Diablo Mountain Range, Coyote Creek Parkway, and the Anderson Lake Reservoir. This section of the EIR also identified that lighting in the project area is dominated by surrounding residential uses located east of the project site and commercial uses located west of the project site, across US 101.

Visual impacts identified in the 2005 EIR are summarized as follows.

Degradation of a State Scenic Highway

The EIR found that the project site is located adjacent to US 101, which is not a State Scenic Highway. The project would therefore have no impact related to scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings in a State Scenic Highway.

Substantial Degradation of the Visual Character or Quality of the Project Site and Surroundings

The EIR found that the proposed project would alter the project site from a rural residential and agricultural use to an urban use with construction of a commercial center at the US 101 and Cochrane Road interchange. While the change from existing uses to a shopping center would

change the character of the project site, it would not be a “substantial degradation” because the City design review and project approval process would ensure that the proposed project would meet City standards and would not degrade the visual quality of the City.

The EIR found that along the northbound US 101 viewpoints, the proposed project would further urbanize the area but would not obscure the scenic backdrop of the Diablo Mountain Range. Along southbound US 101, the proposed project would have greater visibility from vehicles traveling on southbound US 101. While the proposed project would include landscaping to screen the proposed project from the highway, the height and scale of the proposed structures would change the visual character of the northeastern gateway to the city. Compliance with the City of Morgan Hill General Plan and conformance with the City’s design and landscaping standards would reduce impacts to the visual quality of the city to less-than-significant levels.

Light and Glare

The 2005 EIR found that the proposed project would result in the introduction of new sources of nighttime lighting that would significantly impact night sky visibility and would result in significant impacts that would affect the Lick Observatory on Mount Hamilton. Lighting would therefore result in potentially significant impacts. Implementation of Mitigation Measure 3.1-1 from the 2005 EIR would reduce this impact to a less-than-significant level.

Table 4 lists the mitigation measures from the 2005 EIR related to aesthetics.

Table 4 2005 EIR Mitigation Measures: Visual Quality and Urban Design

Mitigation Measure	Description
Mitigation 3.1-1	The project applicant shall prepare and submit a detailed exterior lighting plan that indicates the location and type of lighting that will be used at the project site. The lighting plan shall be consistent with Section 18.74.370 of the [2005] City of Morgan Hill Municipal Code. All external lighting shall be indicated on project improvement plans, subject to review and approval by the City of Morgan Hill.

Source: City of Morgan Hill 2005

Impact Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is usually defined as a panoramic view from an elevated position or a long-range view from a public vantage point. This can include views of natural features or of the built environment, when architecture and landscaped boulevards offer high-value views of an area considered important to the sense of place. The General Plan EIR identifies El Toro Mountain and views of the Diablo Range to the east and the Santa Cruz Mountains to the west from the valley floor, as well as natural streams and riparian areas, as scenic vistas in the City. The 2005 EIR determined that less-than-significant impacts to scenic vistas would occur because policies and existing regulations are in place to protect views of scenic vistas in the City, because the General Plan does not designate the Greenbelt for urban development and because the height of new development is restricted by the Municipal Code and General Plan. Additionally, the 2005 EIR found that because the project would include landscaping to screen views from US 101, impacts to scenic vistas would be less than significant.

While the proposed residences, hotel, and reconfigured structures proposed in this project were not specifically considered in the 2005 EIR, full development of the site is analyzed, since the proposed

buildings are of similar height than to those analyzed in the 2005 EIR. Therefore, the project would not obstruct views of surrounding hillsides more substantially than what was determined by the 2005 EIR.

Because the proposed project site is not on a hillside, the project would not conflict with City goals and policies regarding hillside preservation in the City's 2035 General Plan. Furthermore, the project would comply with height regulations established in the Zoning Code. Therefore, impacts of the project on scenic vistas would be consistent with the findings of the 2005 EIR and would be less than significant. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The 2005 EIR found no impacts to scenic resources, because there are no designated State Scenic Highways in Morgan Hill. Therefore, similar to the conclusion in the 2005 EIR, there would be no impact to scenic resources in a State Scenic Highway. This topic will not be discussed in the Subsequent EIR.

NO IMPACT

- c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The project is in an urbanized area in the city limits of Morgan Hill. The proposed residences and commercial structures would incrementally increase building coverage on the project site compared to what was originally proposed for the Phase II development and considered in the 2005 EIR. However, the residences and structures would have similar height, scale, and setback characteristics to the buildings considered in the 2005 EIR. The proposed project would require a General Plan amendment to change the land use designation to Mixed Use Flex, which would require compliance with residential and commercial design guidelines. Furthermore, the proposed project would continue development patterns in the area, would be subject to design review, and would be designed to meet City design standards and, as such, would not result in a substantial degradation of the visual quality of the City. Accordingly, the project would not substantially degrade the existing visual character or quality of the site and its surroundings beyond what was analyzed in the 2005 EIR, and impacts would be less than significant. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?*

The 2005 EIR describes lighting impacts from the proposed project as potentially significant because of its potential adverse effects to night sky visibility and the Lick Observatory on Mount Hamilton. Similar to the project as analyzed in the 2005 EIR, the proposed project would be subject to the City's design review process and would be reviewed for consistency with the City's *Architectural Review Handbook*, which contains standards and guidelines regarding the appropriate use of lighting and avoidance of glare from lighting and other sources. The proposed project would also be required to be consistent with the California Building Code standards for outdoor lighting and the California Green Building Standards Code (CALGreen), which includes limitations on light fixtures (refer to Section 5.106.8 regarding light pollution reduction and Table 5.106.8 regarding the maximum allowable backlight). Furthermore, pursuant to the 2005 EIR, Mitigation Measure 3.1-1 would still apply to the proposed project. Project implementation would result in no new or more severe impacts concerning lighting beyond those previously identified in the 2005 EIR. Impacts would be less than significant with implementation of Mitigation Measure 3.1-1 from the 2005 EIR, and this topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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2 Agriculture and Forestry Resources

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	EIR pages 3.2-7 through 3.2-11	No	No	No	N/A
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	EIR pages 3.2-7 through 3.2-11	No	No	No	N/A
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	EIR pages 3.2-7 through 3.2-11	No	No	No	N/A

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
d. Result in the loss of forest land or conversion of forest land to non-forest use?	N/A	No	No	No	N/A
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	EIR pages 3.2-7 through 3.2-11	No	No	No	N/A

2005 EIR Summary

Impacts to Agricultural Resources were analyzed in Section 3.2 of the 2005 EIR. The EIR concluded that the proposed project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, which would result in significant and unavoidable impacts. The 2005 EIR did not address forestry impacts.

Agricultural and Forestry impacts identified in the 2005 EIR are summarized as follows.

Prime Farmland Conversion

The 2005 EIR found that the project would result in the conversion of approximately 66.49 acres of Prime Farmland, as designated on the California Department of Conservation, Division of Land Resources Protection *Santa Clara County Important Farmland Map*. A California Agricultural Land Evaluation and Site Assessment model was conducted to determine whether or not impacts to agricultural resources at the project site would be considered significant. This model found that conversion of the agricultural land at the project site would be significant. Development of proposed commercial uses and paved parking areas removes the land from agricultural production, and the affected land cannot be recreated or reproduced elsewhere. There are no feasible mitigation measures available to reduce the impact of agricultural land conversion to a less-than-significant impact. Therefore, the conversion of the project site to commercial/retail uses was determined to be a significant and unavoidable impact.

Agricultural-Urban Land Use Conflicts

The 2005 EIR found that at buildout, the proposed project would place urban land uses adjacent to agricultural uses, which may impair agricultural production and result in land use compatibility conflicts. Existing agricultural operations could potentially affect the proposed commercial/retail uses. Potential conflicts from the adjacent agricultural activities to the proposed development may be dust, odors, pesticide or herbicides run-over. Plowing activities would generate dust, which could be carried to the project site. However, the potential for dust generation would occur only occasionally when fields are plowed or when bare soils are exposed under high-wind conditions. Development of the project site would reduce effects from dust from agricultural operations through screening by the large development and would reduce effects to persons on the site. This effect would also be somewhat reduced because of the relative short-term exposure of customers and employees at the commercial uses at the proposed project to agricultural dust generation, pesticides, and odors in the parking lots in comparison to residential uses located to the north and east of the project site. In addition, lands to the east of the project site are located in the City's sphere of influence and are designated for medium-density residential development in the General Plan. Given the proximity of existing residential and commercial development in the project vicinity, aerial application of pesticides on adjacent properties would be limited, because the agricultural users have already had to adjust to the intrusion of urban uses. Therefore, the potential for pesticide drift would be minimal. In light of these factors, the potential impacts due to agricultural-urban conflicts associated with the proposed project would be less than significant.

Agricultural Zoning and Williamson Act Contracts

The 2005 EIR found that the proposed project would not conflict with zoning for an agricultural use. None of the parcels at the project site are currently under a Williamson Act contract. While the 2005 EIR did find that a parcel located approximately 800 feet north of the project site was currently being used for greenhouse production and under a Williamson Act contract, it was determined that due to the distance and nature of the use of the property, the proposed project would not conflict with the Williamson Act contract.

Impact Analysis

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

The proposed project would remove the same land from agricultural use as the project studied in the 2005 EIR. The impact would therefore be the same as for the previous project and this issue was addressed adequately in the 2005 EIR. This topic will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

- b. *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*

As discussed in the 2005 EIR, neither the project site nor the directly adjacent parcels are under Williamson Act contracts. There would be no impact. This topic will not be discussed in the Subsequent EIR

NO IMPACT

- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*
- d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

The City of Morgan Hill's General Plan does not identify land in the City as zoned for forest land or timberland, and according to the U.S. Department of Agriculture - Forest Service, there is no land in Morgan Hill identified as forestland or timberland (U.S. Department of Agriculture 2021). The project site does not contain forest land or forestry resources. Therefore, there would be no impact to forest land. This impact will not be discussed in the Subsequent EIR.

NO IMPACT

- e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

The proposed project would remove the same land from agricultural use as the project studied in the 2005 EIR and would introduce new development in the same location. The impact would therefore be the same as for the previous project, and this issue was addressed adequately in the 2005 EIR. This topic will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT IMPACT

3 Air Quality

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	N/A	Yes	Yes	Yes	N/A
b. 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?	EIR Pages 3.3-14 to 3.3-19	Yes	Yes	Yes	No
c. Expose sensitive receptors to substantial pollutant concentrations?	EIR Pages 3.3-14 to 3.3-21	Yes	Yes	Yes	Yes
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	N/A	Yes	Yes	Yes	N/A

2005 EIR Summary

Impacts to air quality are analyzed in Section 3.3 of the 2005 EIR. The section reviews temporary construction emissions and long-term operational emissions. Emissions from demolition, site preparing, and grading activities are identified. For operational emissions, mobile source emissions, localized sources of carbon monoxide (CO), and stationary sources are analyzed. Furthermore, sources of toxic air contaminants (TAC) from construction and operational activities in proximity to

sensitive receptors are described. The section does not address the issues of conflicts with air quality plans or other emissions, such as odors. Air quality impacts identified in the 2005 EIR are summarized as follows.

Construction

DEMOLITION OF EXISTING BUILDINGS

The EIR finds that the demolition of existing buildings would result in the potential release of asbestos. Compliance with the Bay Area Air Quality Management District (BAAQMD) Regulation 11, Rule 2 and California Occupational Safety and Health Administration regulations and standards would be required. Mitigation Measure 3.3-1 is required to ensure that asbestos-containing material are removed and handled properly prior to demolition of existing structures. Impacts would be less than significant.

CONSTRUCTION-RELATED EMISSIONS

The EIR finds that construction activities would generate emissions in the form of dust, exhaust emissions, and TACs. The emissions are qualitatively addressed, since a quantitative analysis was not required by BAAQMD. It is concluded that exhaust emissions from operation of construction equipment onsite and vehicle activity would be less than significant due to the temporary nature of construction. However, fugitive particulate matter (particulate matter with a diameter of 10 microns or less [PM₁₀]) would be a potentially significant source of emissions due to site preparation and grading activities. Therefore, Mitigation Measure 3.3-2 is required to reduce impacts to less-than-significant levels.

Operation

MOBILE SOURCE EMISSIONS

The EIR finds that the proposed project would generate new trips and mobile source emission that would exceed the significance thresholds established by the BAAQMD. The weekday and weekend mobile source emissions would exceed the BAAQMD significance thresholds of 80 pounds per day for reactive organic gases, nitrogen oxides, and PM₁₀. As such, impacts from mobile source emissions would be potentially significant and would require Mitigation Measure 3.3-3 to reduce impacts to less-than-significant levels.

LOCALIZED EMISSIONS OF CARBON MONOXIDE

The EIR finds that the project would not be a source of localized CO emissions based on a screening analysis. The future CO concentrations anticipated at the nearby intersections would be below the California Ambient Air Quality Standard (CAAQS) of 9 parts per million (ppm). As such, impacts would be less than significant, and no mitigation measures would be required.

STATIONARY SOURCES – TOXIC AIR CONTAMINANTS

The EIR finds that the project would include the development of a new stationary source in the form of a 12-pump gasoline fuel facility. Operation of the gasoline fuel facility would release gasoline vapor emission during the storage and dispensing of gasoline. The new gasoline fuel facility would be required to obtain a permit to operate from the BAAQMD, which would review the fuel facility design and ensure that it does not present a significant cancer risk. As such, adherence to the

BAAQMD permitting process would result in less-than-significant impacts, and no mitigation measures would be required. Table 5 lists the 2005 EIR's mitigation measures related to air quality.

Table 5 2005 EIR Mitigation Measures: Air Quality

Mitigation Measure	Description
Impact 3.3-1: Short-Term Construction Emissions – Demolition of Existing Buildings	
Mitigation Measure 3.3-1	Prior to demolition of any onsite structures, the project applicant shall conduct a full site assessment for ACM by a California-certified asbestos consultant for all structures proposed for demolition. Prior to demolition and site clearing activity, all identified ACM shall be removed by a licensed asbestos abatement contractor, and clearance shall be obtained from the BAAQMD before proceeding with the demolition. All ACM shall be transported to a disposal site approved to accept non-friable asbestos-containing waste.
Impact 3.3-2: Short-Term Construction Emissions – Grading and Site Preparation	
Mitigation Measure 3.3-2	<p>The project applicant shall implement the following recommended BAAQMD dust-control measures for construction emissions of PM₁₀. These dust-control measures shall be implemented during construction for all phases of the proposed project:</p> <ul style="list-style-type: none"> ▪ Sprinkle water to all active construction areas at least twice daily and more often when conditions warrant ▪ Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard ▪ Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites ▪ Sweep daily all paved access roads, parking areas, and staging areas at construction sites ▪ Sweep streets daily if visible soil material is carried onto adjacent public streets ▪ Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas ▪ Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.) ▪ Limit traffic speeds on unpaved roads to 15 miles per hour ▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways ▪ Replant vegetation in disturbed areas as quickly as possible ▪ Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site ▪ Suspend grading activities when winds exceed 25 miles per hour and visible dust clouds cannot be prevented from extending beyond active construction areas ▪ Limit the area subject to excavation, grading, and other construction activity at any one time
Impact 3.3-3: Long-Term Operational Emissions – Mobile Source Emissions	
Mitigation Measure 3.3-3	<p>A facilities "trip reduction plan" shall be implemented by the project applicant to reduce single occupant vehicle commute trips by employees and promote non-auto travel by both employees and patrons. The facilities trip reduction plan shall include, but not be limited to, elements that would reduce traffic and thus air pollutant emissions as described below:</p> <ul style="list-style-type: none"> ▪ Provide one bus stop/shelter with pedestrian access to the project site. Implementation of this measure could reduce project emissions by approximately 2%. ▪ Bicycle amenities should be provided at the project site once the proposed project is in operation. Bicycle amenities could include secure bicycle parking for employees, bicycle racks for customers, and bike lane connections. This vehicle trip reduction measure may reduce emissions associated with the proposed project by approximately 2%. ▪ Pedestrian facilities should link the future transit stop and access roadways to the major sites uses. This trip reduction measure may reduce emissions by approximately 1%. ▪ Designate a portion of the parking lot for weekday "park-and-ride" parking spaces (the excess between weekday peak and weekend peak) which would reduce emissions from traffic to the project site by allowing commuters to park their car and carpool or take transit.

Mitigation Measure	Description
	<ul style="list-style-type: none"> Require employers at the project site to post transit rates and scheduling information on bulletin boards. This vehicle trip reduction measure may reduce emissions by 1%.
ACM = asbestos-containing materials	
Source: City of Morgan Hill 2005	

Overview of Air Pollution

The federal Clean Air Act and State Clean Air Act mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the CAAQS for “criteria pollutants” and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including CO, volatile organic compounds (VOC)/reactive organic gases (ROG),¹ nitrogen oxides (NO_x), PM₁₀, particulate matter with diameters of 2.5 microns or less (PM_{2.5}), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROG and NO_x. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog).

Air pollutant emissions are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.
- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions and can also be divided into two major subcategories:

- On-road sources that may be legally operated on roadways and highways
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Air Quality Standards and Attainment

The project site is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the BAAQMD. As the local air quality management agency, the BAAQMD is required to monitor air pollutant levels to ensure that the NAAQS and CAAQS are met, and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the SFBAAB is classified as being in “attainment” or “non-attainment.” In areas

¹ CARB defines VOC and ROG similarly as, “any compound of carbon excluding CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate,” with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term ROG is used in this Initial Study.

designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts associated with these criteria pollutants, presented in Table 6, are already occurring in that area as part of the environmental baseline condition. Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The SFBAAB is designated a non-attainment area for state and federal ozone standards, state and federal PM_{2.5} standards, and state PM₁₀ standards and is in attainment or unclassified for the remaining criteria pollutants (BAAQMD 2017a). This non-attainment status is a result of several factors, including meteorology and topography, as well as high automobile emissions in the SFBAAB (BAAQMD 2017a).

Table 6 Health Effects Associated with Non-Attainment Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Suspended particulate matter (PM ₁₀)	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).
Suspended particulate matter (PM _{2.5})	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.

Source: U.S. Environmental Protection Agency 2021

Air Quality Management

Because the SFBAAB currently exceeds the ozone and PM_{2.5} for NAAQS and the ozone, PM_{2.5}, and PM₁₀ for CAAQS, the BAAQMD is required to implement strategies to reduce pollutant levels to achieve attainment for NAAQS and CAAQS. The Bay Area 2017 Clean Air Plan provides a plan to improve Bay Area air quality and protect public health, as well as the climate. The legal impetus for the 2017 Clean Air Plan is to update the most recent ozone plan, the 2010 Clean Air Plan, to comply with state air quality planning requirements as codified in the California Health and Safety Code. Although steady progress in reducing ozone levels in the SFBAAB has been made, the region continues to be designated as non-attainment for both the 1-hour and 8-hour state ozone standards. In addition, emissions of ozone precursors in the Bay Area contribute to air quality problems in neighboring air basins. Under these circumstances, state law requires the 2017 Clean Air Plan to include all feasible measures to reduce emissions of ozone precursors and reduce transport of ozone precursors to neighboring air basins. The 2017 Clean Air Plan determines that, with implementation of the proposed control strategy, the SFBAAB can expect to reach attainment of state ozone standards by approximately 2025 (BAAQMD 2017b).

In 2006, the U.S. EPA reduced the national 24-hour PM_{2.5} standard regarding short-term exposure to fine particulate matter from 65 micrograms per cubic meter (µg/m³) to 35 µg/m³. Based on air quality monitoring data for the 2006 to 2008 cycle showing that the region was slightly above the

standard, the U.S. EPA designated the SFBAAB as non-attainment for the 24-hour national standard in December 2008. This triggered the requirement for the BAAQMD to prepare a State Implementation Plan (SIP) submittal to demonstrate how the region would attain the standard. However, data for both the 2008 to 2010 and the 2009 to 2011 cycles showed that PM_{2.5} levels in the SFBAAB currently meet the standard. On October 29, 2012, the U.S. EPA issued a proposed rulemaking to determine that the SFBAAB now attains the 24-hour PM_{2.5} national standard. Based on this, the SFBAAB is required to prepare an abbreviated SIP submittal, which includes an emission inventory for primary (directly-emitted) PM_{2.5}, as well as precursor pollutants that contribute to formation of secondary PM in the atmosphere and amendments to BAAQMD New Source Review to address PM_{2.5} (adopted December 2012). However, key SIP requirements to demonstrate how a region will achieve the standard (i.e., the requirement to develop a plan to attain the standard) will be suspended as long as monitoring data continues to show that the SFBAAB attains the standard.

In addition to preparing the “abbreviated” SIP submittal, the BAAQMD has prepared a report entitled “Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area” (BAAQMD 2012). The report helps guide the BAAQMD’s ongoing efforts to analyze and reduce PM in the Bay Area in order to better protect public health.² The SFBAAB will continue to be designated as non-attainment for the federal 24-hour PM_{2.5} standard until such time as the BAAQMD elects to submit a “redesignation request” and a “maintenance plan” to the U.S. EPA, and the U.S. EPA approves the proposed redesignation.

Air Pollutant Emission Thresholds

The BAAQMD has adopted guidelines for quantifying and determining the significance of air quality emissions in its May 2017 *CEQA Air Quality Guidelines* (BAAQMD 2017a).

Regional Emission Thresholds

Table 7 presents the significance thresholds for construction-related criteria air pollutant and precursor emissions adopted by BAAQMD. These represent the levels at which a project’s individual emissions of criteria air pollutants or precursors during construction would result in a cumulatively considerable contribution to the SFBAAB’s existing air quality conditions. If the project’s construction-related criteria pollutant emissions exceed the thresholds shown in Table 7, the proposed project would result in a significant construction-related air quality impact.

Table 7 Criteria Air Pollutant Significance Thresholds for Construction

Pollutant	Average Daily Emissions (pounds/day)
ROG	54
NO _x	54
PM ₁₀	82 (exhaust)
PM _{2.5}	54 (exhaust)
Source: BAAQMD 2017a	

Table 8 presents the significance thresholds for operation-related criteria air pollutant and precursor emissions adopted by BAAQMD. These represent the levels at which a project’s individual

² PM is made up of particles that are emitted directly, such as soot and fugitive dust, as well as secondary particles that are formed in the atmosphere from chemical reactions involving precursor pollutants such as oxides of nitrogen, sulfur oxides, volatile organic compounds, and ammonia.

emissions of criteria air pollutants or precursors during operation would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If the project's operation-related criteria pollutant emissions exceed the thresholds shown in Table 8, the proposed project would result in a significant operation-related air quality impact.

Table 8 Criteria Air Pollutant Significance Thresholds for Operation

Pollutant	Average Daily Emissions (pounds/day)	Average Annual Emissions (tons/year)
ROG	54	10
NO _x	54	10
PM ₁₀	82	15
PM _{2.5}	54	10

Source: BAAQMD 2017a

Carbon Monoxide

BAAQMD provides a preliminary screening methodology to conservatively determine whether a proposed project would exceed CO thresholds. If the following criteria are met, a project would result in a less-than-significant impact related to local CO concentrations:

- 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.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- 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).

Toxic Air Contaminants

In the absence of a qualified Community Risk Reduction Plan, BAAQMD has established the following *Thresholds of Significance* for local community risks and hazards associated with TACs and PM_{2.5} for assessing individual source impacts at a local level. Impacts would be significant if:

- The project would result in an increased cancer risk of >10 in one-million
- The project would result in an increased non-cancer (i.e., Chronic or Acute) risk of >1.0 Hazard Index
- The project would result in an ambient PM_{2.5} concentration increase of >0.3 µg/m³ annual average

A project would be considered to have a cumulatively considerable impact if the aggregate total of current and proposed TAC sources within a 1,000 feet radius of the project fence-line, in addition to the project, would exceed the *Cumulative Thresholds of Significance*. Impacts would be significant if:

- The project would result in an increased cancer risk of >100 in one million
- The project would result in an increased non-cancer (i.e., Chronic or Acute) risk of >10 Hazard Index

- The project would result in an ambient PM_{2.5} concentration increase of >0.8 µg/m³ annual average

Excess cancer risks are defined as those occurring in excess of or above and beyond those risks that would normally be associated with a location or activity if toxic pollutants were not present. Non-carcinogenic health effects are expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable reference exposure level.

Odor Sources

The BAAQMD provides minimum distances for siting of new odor sources shown in Table 9. A significant impact would occur if the project would result in other emissions (such as odors) affecting substantial numbers of people or would site a new odor source as shown in Table 9 in the specified distances of existing receptors.

Table 9 BAAQMD Odor Source Thresholds

Odor Source	Minimum Distance for Less-than-Significant Odor Impacts (in miles)
Wastewater Treatment Plant	2
Wastewater Pumping Facility	1
Sanitary Landfill	2
Transfer Station	1
Composting Facility	1
Petroleum Refinery	2
Asphalt Batch Plant	2
Chemical Manufacturing	2
Fiberglass Manufacturing	1
Painting/Coating Operations	1
Rendering Plant	2
Source: BAAQMD 2017a	

Methodology

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., townhomes, mid-rise apartments, a hotel, and strip mall uses), and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described under *Project Description*.

Construction emissions modeled include emissions generated by construction equipment used onsite and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in operation by emission factors. Construction of the proposed project was analyzed based on the applicant-provided construction schedule and default-based construction equipment list. Construction would occur over approximately three overlapping phases (Phase 1, 2, and 3) from March 2023 to September 2025 (approximately 30 months/2.5 years). The schedule would be 6 days per week with construction active Monday through Saturday. The site would cut 37,510 cubic

yards of material and balance with no hauling export or import onsite. It is assumed that all construction equipment used would be diesel-powered. This analysis assumes that the project would comply with all applicable regulatory standards. In particular, the project would comply with the BAAQMD Regulation 8 Rule 3 for architectural coating. Additionally, the site is currently vacant, and no demolition would occur. Mitigation Measure 3.3-1 from the 2005 EIR would not be applicable to this analysis, since no onsite structures would be demolished.

Operational emissions modeled include mobile source emissions (i.e., vehicle emissions), energy emissions, and area source emissions. Mobile source emissions are generated by vehicle trips to and from the project site. Emissions attributed to energy use include natural gas consumption by appliances, as well as for space and water heating. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coatings.

Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The California Clean Air Act requires that air districts create a Clean Air Plan that describes how the jurisdiction will meet air quality standards. The most recently adopted air quality plan is the BAAQMD 2017 Clean Air Plan. The 2017 Clean Air Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and TACs. The 2017 Clean Air Plan does not include control measures that apply directly to individual development projects. Instead, the control strategy includes control measures related to stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants (BAAQMD 2017b).

The 2017 Clean Air Plan focuses on two paramount goals:

- Protect air quality and health at the regional and local scale by attaining all national and state air quality standards and eliminating disparities among Bay Area communities in cancer health risk from TACs
- Protect the climate by reducing Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050

Under BAAQMD's methodology, a determination of consistency with the 2017 Clean Air Plan should demonstrate that a project:

- Supports the primary goals of the air quality plan
- Includes applicable control measures from the air quality plan
- Does not disrupt or hinder implementation of any air quality plan control measures

A project that would not support the 2017 Clean Air Plan's goals would not be consistent with the 2017 Clean Air Plan. On an individual project basis, consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the Clean Air Plan's goals. As shown in the response to Threshold 2 (see Table 10, Table 11, and Table 12 below), the project would not result in exceedances of BAAQMD thresholds for criteria air pollutants and thus would not conflict with the 2017 Clean Air Plan's goal to attain air quality standards. The 2017 Clean Air Plan includes goals and measures to increase the use of electric vehicles, promote the use of onsite renewable energy, and encourage energy efficiency. The project includes features that are consistent with these goals and measures, including meeting CALGreen, being an all-electric development, providing electric

vehicle parking stalls, and providing spaces of bicycle parking. Therefore, the project would not conflict with or obstruct the implementation of an applicable air quality plan and the project would have a less-than-significant impact. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project 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?*

The SFBAAB is designated non-attainment for the NAAQS for ozone and PM_{2.5} and the CAAQS for ozone, PM_{2.5}, and PM₁₀. The following subsections discuss emissions associated with construction and operation of the proposed project.

Construction Emissions

Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM₁₀ and PM_{2.5}) and exhaust emissions from heavy construction equipment and construction vehicles in addition to ROG emissions that would be released during the drying phase of architectural coating. Table 10 summarizes the estimated maximum daily emissions of pollutants during project construction. As shown therein, construction-related emissions would not exceed BAAQMD thresholds. Therefore, project construction would not 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. Impacts would be less than significant.

Table 10 Estimated Maximum Daily Construction Emissions (lbs/day)

Construction Year	ROG	NO _x	CO	SO ₂	Exhaust PM ₁₀	Exhaust PM _{2.5}
Phase 1						
2022	7	50	52	<1	2	2
2023	4	17	21	<1	1	1
2024	4	16	20	<1	1	1
Phase 2						
2023	20	45	43	<1	2	2
2024	20	19	28	<1	1	1
Phase 3						
2024	17	46	54	<1	2	2
Maximum Emissions	20	50	52	<1	2	2
BAAQMD Thresholds	54	54	N/A	N/A	82	54
Threshold Exceeded?	No	No	N/A	N/A	No	No

lbs/day = pounds per day; N/A = not applicable; ROG = reactive organic gases, NO_x = nitrogen oxides, CO = carbon monoxide, SO₂ = sulfur dioxide, PM₁₀ = particulate matter 10 microns in diameter or less, PM_{2.5} = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed made using CalEEMod. See Appendix A for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from “mitigated” results, which account for compliance with regulations (including BAAQMD Regulation 8 Rule 3) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

The BAAQMD does not have quantitative thresholds for fugitive dust emissions during construction. Instead, the BAAQMD recommends the implementation of best management practices (BMP) to reduce fugitive dust emissions. The project would need to implement Mitigation Measure 3.3-2 from the 2005 EIR. Adherence to the dust control measures listed in Mitigation Measure 3.3-2 would reduce impacts to less-than-significant levels.

Operational Emissions

The 2005 EIR utilized the URBan EMISSIONS (URBEMIS) computer program to determine project operational emissions. URBEMIS is a computer model that uses factors such as land use, existing traffic conditions, and existing transit infrastructure to estimate potential air quality impacts that could occur as a result of a proposed project. The 2005 EIR utilized URBEMIS version 7.5.0, which incorporates 2002 EMISSION FACTORS, or EMFAC, which are emissions factors developed by CARB that are used to assess vehicle emissions and support CARB's regulatory and air quality planning efforts. The 2005 EIR found that operational emissions from mobile sources would be significant and unavoidable, even with implementation of Mitigation Measure 3.3-3.

This Initial Study utilizes CalEEMod to model emissions. CalEEMod is an updated and more refined emissions modeling computer program. CalEEMod is a more accurate emissions model, because it incorporates cleaner technology (e.g., construction equipment with engines that emit fewer pollutants due to filters and design), more stringent state regulations (e.g., the 2019 Title 24 building code for building energy efficiency), and improved vehicle standards (e.g., accounting for increased electric vehicles in the average fleet and lower emission factors due to engine design improvements). Therefore, model outputs from CalEEMod will show different results than the URBEMIS 2002 model, because the model has newer inputs that incorporate the cleaner and more stringent standards required at the time of this analysis. Additionally, the CalEEMod model output will be different than what was modeled in the 2005 EIR, as the Phase II project currently proposed is different from the originally proposed Phase II that was analyzed in the 2005 EIR. Operation of the project would generate criteria air pollutant emissions associated with area sources (e.g., architectural coatings, consumer products, and landscaping equipment) and mobile sources (i.e., vehicle trips to and from the project site). There would be no energy criteria pollutant emissions since the project would not use natural gas. Table 11 summarizes the project's maximum daily operational emissions by emission source. Table 12 summarizes the project's annual operational emissions by emission source.

Table 11 Estimated Maximum Daily Operational Emissions (lbs/day)

Emissions Source	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	23	<1	41	<1	<1	<1
Mobile	27	27	229	<1	48	13
Stationary	<1	<1	<1	<1	<1	<1
Total	<51	<29	<271	<3	<50	<15
BAAQMD Thresholds	54	54	N/A	N/A	82	54
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; N/A = not applicable; ROG = reactive organic gases, NO_x = nitrogen oxides, CO = carbon monoxide, SO₂ = sulfur dioxide, PM₁₀ = particulate matter 10 microns in diameter or less, PM_{2.5} = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed made using CalEEMod. See Appendix A for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations (including BAAQMD Regulation 8 Rule 3) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

Table 12 Estimated Annual Operational Emissions (tons/year)

Emissions Source	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area Sources	4	<1	4	<1	<1	<1
Mobile Sources	4	4	32	<1	7	2
Stationary Sources	<1	<1	<1	0	0	0
Total	<9	<6	<37	<2	<8	<3
BAAQMD Thresholds	10	10	N/A	N/A	15	10
Threshold Exceeded?	No	No	No	No	No	No

N/A = not applicable; ROG = reactive organic gases, NO_x = nitrogen oxides, CO = carbon monoxide, SO₂ = sulfur dioxide, PM₁₀ = particulate matter 10 microns in diameter or less, PM_{2.5} = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed made using CalEEMod. See Appendix A for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from “mitigated” results, which account for compliance with regulations (including BAAQMD Regulation 8, Rule 3 for architectural coatings) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

As shown in Table 11 and Table 12, operational emissions would not exceed the BAAQMD regional thresholds for criteria pollutants. The proposed project’s operational emissions would be less than significant. Because this impact would be less than significant, Mitigation Measure 3.3-3 from the 2005 EIR would not be needed. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Therefore, the majority of sensitive receptor locations are schools, hospitals, and residences. Sensitive receptors in the project vicinity include single-family residences located immediately east of the project site, as well as Westmont of Morgan Hill, a retirement community, located approximately 175 feet south of the project site across Cochrane Road. The nearest sensitive receptors are the single-family residences adjacent to the project site’s eastern boundary. The project also includes the siting of new sensitive receptors. Localized air quality impacts to sensitive receptors typically result from CO hotspots and TACs, which are discussed in the following subsections.

Carbon Monoxide Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal 1-hour standard of 35 ppm or the federal and state 8-hour standard of 9 ppm (CARB 2016).

The project would generate approximately 9,857 net new trips based on the CalEEMod output (Appendix A). Based on the Transportation Analysis prepared by Hexagon Transportation Consultants, Inc., the existing average daily traffic on Cochrane Road between U.S. 101 northbound ramp and DePaul Drive is 18,390 vehicles. The cumulative average daily trips (ADT) on Cochrane Road with the project would increase to 33,190 vehicles with the project contributing 7,500 daily trips to the overall total. The intersection would not exceed 44,000 vehicles per hour, nor would the project contribute enough trips to cause the intersection to exceed the threshold of 44,000 vehicles per hour. Therefore, the project would not expose sensitive receptors to substantial CO

concentrations, and localized air quality impacts related to CO hot spots would be less than significant.

Toxic Air Contaminants

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the project's potential to result in impacts related to TAC emissions during construction and operation.

Construction

Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2020) and is therefore the focus of this analysis.

Generation of DPM from construction projects typically occurs in a single area for a short period of time. Construction of the proposed project would occur over approximately 30 months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period, but such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., 30 months) is approximately 8 percent of the total exposure period used for 30-year health risk calculations. Current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (BAAQMD 2017a). Given the aforementioned discussion, DPM generated by project construction would not create conditions where the probability is greater than one-in-one million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. Therefore, project construction would not expose sensitive receptors to substantial TAC concentrations, and impacts would be less than significant.

Operation

Common sources of TACs and PM_{2.5} include gasoline stations, dry cleaners, diesel backup generators, truck distribution centers, freeways, and other major roadways (BAAQMD 2017b). The project would not involve construction of gas stations, dry cleaners, highways, or roadways, but would install diesel backup generators, which are a permitted source of TAC or PM_{2.5}.

The project would include three onsite emergency diesel generators rated at 150 kilowatts (kW) and powered by an approximately 201-horsepower engine. The locations are subject to change, but one

generator would be near the drainage basin, one near the leasing office, and one on the southern end of the apartments. Potential health risk impacts from the emergency generators were calculated using the BAAQMD *Risk and Hazards Emissions Screening Calculator* (Beta Version). The DPM emissions that would be generated by the emergency generators was computed using CalEEMod assuming that the generators would operate for a maximum of 50 hours per year for testing and maintenance purposes pursuant to the BAAQMD *Permit Handbook* (2021). The tons per year emissions were then converted into pounds per day emissions assuming operation could occur any day of the year (365 days). The pounds per day emissions were input into the *Risk and Hazards Emissions Screening Calculator* assuming the source was solely a diesel engine. Additionally, the risks from each generator were adjusted for distance to the closest sensitive receptor. Due to locations of each generator, a different distance was used for each one. For the emergency generator proposed by the drainage basin, the nearest sensitive receptor would be a single-family residence approximately 520 feet northwest. The emergency generator located near the leasing office is approximately 640 feet southwest of the single-family residences across Mission View Drive, and the generator south of the proposed apartments is approximately 315 feet south of the same single-family residences. Table 13 shows the potential health risks from the emergency generators the nearest existing sensitive receptors.

Table 13 Health Risks from Emergency Generator Testing and Maintenance Operation

Scenario	Distance (feet/meters)	Excess Cancer Risk (per million)	Chronic Health Risk ^{1,2}	PM _{2.5} Annual Average (µg/m ³)
Project Emergency Generator #1	520/155	1	<0.1	0
Project Emergency Generator #2	640/195	1	<0.1	0
Project Emergency Generator #3	315/95	2	<0.1	0
BAAQMD Significance Threshold		>10	>1	>0.3
Threshold Exceeded?		No	No	No

BAAQMD = Bay Area Air Quality Management District; PM_{2.5} = particulate matter less than 2.5 microns in size; µg/m³ = micrograms per cubic meter;

¹ Noncancer health impacts are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless.

² There is no acute reference exposure level for diesel exhaust to calculate acute health risk. Furthermore, except for unusual circumstances of high exposure, Office of Environmental Health Hazard Assessment does not recommend acute analysis for DPM.

Source: Appendix A

Additionally, there are two permitted emission sources identified within 1,000 feet of the project's fence line using BAAQMD's *Permitted Stationary Source Risk and Hazards* mapping tool (BAAQMD 2021). The Target Corporation source (Facility Identification 18384) is approximately 855 feet west of the sensitive receptors closest to the project generators and the source is a natural gas emergency generator. The other source is the Cochrane Commons Service Station, a gas dispensing facility, which is approximately 620 feet southwest of the sensitive receptors closest to the project generators. Other sources within 1,000 feet of the project fence line include Cochrane Road and U.S. 101. Both are major roadways with more than 10,000 ADT. Cochrane Road runs immediately

south of the project site (approximately 25 feet to the roadway centerline). U.S. 101 is approximately 705 feet west of the project site.

For screening purposes, BAAQMD provides raster data that indicates health risk associated with highways, major roadways, and railroads in the Bay Area. BAAQMD used AERMOD³ to model cancer risk and PM_{2.5} concentrations associated with each source. For this analysis, cancer risk and PM_{2.5} concentrations associated with each roadway were identified at the location of 17 sensitive receptors in proximity to the project site. To provide a conservative analysis, only the greatest cancer risk and PM_{2.5} concentrations are provided.

Table 14 provides the cumulative risks and hazards associated with project and nearby sources of TACs. As shown in Table 14, the total cumulative risks would not exceed the BAAQMD thresholds.

Table 14 Cumulative Health Risks Associated with the Project and Nearby TAC Sources

Source	Source Type	Distance (feet/meters)	Excess Cancer Risk (per million)	Chronic Health Risk	PM _{2.5} Annual Average (µg/m ³)
Project Emergency Generators	Diesel Generators	315/95	2	<0.1	0
Project Emergency Generators	Diesel Generators	520/155	1	<0.1	0
Project Emergency Generator	Diesel Generators	640/195	1	<0.1	0
Target Corporation #T2252(Facility ID 18384) (Plant Number 17945)	Natural Gas Generator	545/165	<1	<0.1	<0.01
Cochrane Commons Service Station (Facility ID 2002499) ²	Gas Dispensing Facility	275/85	<1	<0.1	0
U.S. 101	Roadway		21	N/A	0.3
Cochrane Road	Roadway		<1	N/A	<0.01
Cumulative Total			<32	<0.5	0.33
BAAQMD Significance Threshold			>100	>10	>0.8
Threshold Exceeded?			No	No	No

PM_{2.5} = particulate matter less than 2.5 microns in size; µg/m³ = micrograms per cubic meter; N/A = not applicable
Source: Appendix A

Impacts would be less than significant, and the project would not contribute to a cumulative risk associated with TACs. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

³ A steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain.

- d. *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust and during idling. However, these odors would be intermittent and temporary and would cease upon completion, and odors disperse with distance. Overall, project construction would not generate other emissions, such as those leading to odors, affecting a substantial number of people. Construction-related impacts would be less than significant.

Table 9 provides screening distances for land uses that have the potential to generate substantial odor complaints. The uses in the table include wastewater treatment plants (WWTP), landfills or transfer stations, refineries, composting facilities, confined animal facilities, food manufacturing, smelting plants, and chemical plants (BAAQMD 2017a). Apartments, townhomes, strip malls, and hotels are not included in this list, and operation of the project would not generate other emissions, such as those leading to odors that would affect a substantial number of people. No operational impacts would occur. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

4 Biological Resources

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

- | | | | | | |
|--|--------------------------------|----|----|----|-----|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | EIR Pages 3.4-1 through 3.4-33 | No | No | No | Yes |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | EIR Pages 3.4-1 through 3.4-33 | No | No | No | N/A |

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	EIR Pages 3.4-1 through 3.4-33	No	No	No	N/A
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	EIR Pages 3.4-1 through 3.4-3	No	No	No	Yes
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	EIR Pages 3.4-1 through 3.4-33	No	No	No	Yes

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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?	N/A	No	No	No	N/A

2005 EIR Summary

Impacts to Biological Resources were analyzed in Section 3.4 of the 2005 EIR. The EIR concluded that the proposed project would not result in significant impacts to biological resources.

Biological Resources impacts identified in the 2005 EIR are summarized as follows.

Bay Checkerspot Butterfly

The 2005 EIR identified that the Bay checkerspot butterfly are known to occur within 1 mile of the project location. The project area is also centrally located between three critical habitat areas for the Bay checkerspot butterfly, one to the northeast, one to the northwest, and one to the southwest. However, the site was not identified as having host plants and habitat for the Bay checkerspot butterfly, the occurrence of which would likely be incidental, and impacts would be less than significant.

Burrowing Owl Habitat

The 2005 EIR found that implementation of the proposed project would result in temporary and direct alteration of site conditions that could support burrowing owls, a special-status wildlife species. Habitat at the project location provides a high potential of suitability for reproduction, cover, and foraging of the species. As such, impacts to the burrowing owl habitat would be potentially significant and would require Mitigation Measures 3.4-1a and 3.4-1b to reduce impacts to less than significant.

Raptors and Migratory Birds

The 2005 EIR found that the proposed project would result in temporary and direct disturbance to nesting raptors and migratory birds. According to the 2005 EIR, there are 118 various tree species that provide nesting habitat for raptors and migratory birds. Construction activities that would require disturbance of trees or other vegetation containing active nests could result in significant

impacts to nesting raptor and migratory birds. As such, Mitigation Measure 3.4-2 would be required to reduce impacts to less than significant.

San Joaquin Kit Fox Habitat

The 2005 EIR found that the habitat on the project site could provide a moderate potential of suitability for reproduction, cover, and foraging for the San Joaquin Kit Fox. However, the 2005 EIR concluded that based on a site inspection, kit fox breeding habitat is not expected to occur in Morgan Hill and impacts would be less than significant.

Special-Status Bat Species

The 2005 EIR found that implementation of the proposed project would result in temporary and direct alteration of site conditions that could support special-status bat species and/or their roosting habitat. Special-status bat species, including long-eared myotis bat, small-footed myotis bat, and Yuma myotis bat have the potential to occur at the project site in rural structures or various trees on site. As such, Mitigation Measure 3.4-3 would be required to reduce impacts to less-than-significant levels.

Removal of Protected Trees

The 2005 EIR found that implementation of the proposed project would result in potential removal of 118 various tree species, some of which are native, which would be required to comply with 2005 Morgan Hill Municipal Code Section 12.32.070. Mitigation Measure 3.4-4 would be required to reduce impacts to less-than-significant levels (Table 15).

Table 15 2005 EIR Mitigation Measures

Mitigation Measure	Description
Mitigation 3.4-1a	The project applicant shall retain a qualified biologist approved by the City of Morgan Hill to conduct a preconstruction survey for nesting burrowing owls at the project site no more than 30 days prior to ground disturbance. Depending on whether construction will begin during the nesting season (typically February 1st through August 30th), any owls inhabiting the site shall either: (a) during the nesting season be protected from disturbance through establishment of avoidance areas where no personnel or equipment are allowed to enter within a certain distance of the occupied burrow (distance determined by the biologist onsite following Burrowing Owl Consortium recommendations) or (b) outside of the nesting season be excluded and/or passively relocated by the biologist. Also, the qualified biologist shall be present during all phases of initial ground clearing to monitor for the presence of burrowing owl. Should a previously undetected owl emerge during clearing, all activity in the vicinity of the burrow (distance to be determined by the biologist) shall cease until the proper avoidance/exclusion measures are implemented, and the biologist deems disturbance potential to be minimal.
Mitigation 3.4-1b	The project applicant shall compensate for loss of burrowing owl habitat located at the site by complying with the Citywide Burrowing Owl Habitat Mitigation Plan and fee program (Morgan Hill 2003)

Mitigation Measure	Description
Mitigation 3.4-2	<p>If proposed construction activities are planned to occur during the nesting seasons for local avian species (typically February 1st through August 31st), the project applicant shall retain a qualified biologist approved by the City to conduct a focused survey for active nests of raptors and migratory birds in the vicinity (i.e., any suitable breeding habitat in accessible parcels adjacent to the project area that the biologist deems could be disturbed by construction activities) of the construction area no more than 30 days prior to ground disturbance. If active nests are located during preconstruction surveys, construction activities shall be restricted as deemed necessary by the qualified biologist to avoid disturbance of the nest until it is abandoned, or the biologist deems disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 250 feet around the nest) or alteration of the construction schedule. No action is necessary if construction will occur during the nonbreeding season (generally September 1st through January 31st)</p>
Mitigation 3.4-3	<p>The project applicant shall retain a qualified biologist approved by the City of Morgan Hill to conduct a focused preconstruction survey for possible roost sites of special-status bat species in the project area. The survey shall be conducted no more than 45 days prior to the onset of ground disturbance or major construction activities. If bat species or roosts are identified in the project area during preconstruction surveys, the biologist in coordination with the applicant shall (at a minimum):</p> <ol style="list-style-type: none"> Identify species present in the roost (this may require the assistance of a biologist who specializes in bat ecology) Install bat boxes at a location determined through obtaining technical guidance from the USFWS and/or DFG (box specifications and number to be determined based on the size of the roost and type of species present) Install one-way bat doors at the roost to prohibit bat re-entry once the bat boxes are available. <p>Additionally, the applicant shall postpone any project-related activity that would damage or disturb the roost site until the biologist deems no bat species to be in jeopardy. The project applicant, to the extent possible, shall also implement USFWS and/or DFG recommendations (obtained through technical guidance) for minimizing the potential to take bat species during construction. If bat species are not identified onsite during the preconstruction survey, no further action is necessary.</p>
Mitigation 3.4-4	<p>Removal and/or relocation of trees at the project site shall be in compliance with Sections 12.32.030 through 12.32.080 of the [2005] City of Morgan Hill Municipal Code, Restrictions on Removal of Significant Trees. Should the City of Morgan Hill require the project applicant to preserve any existing trees in place and/or transplant any trees at the project site, the following tree protection standards shall be implemented during construction and demolition activities at the project site. Prior to commencement of construction activities, to the greatest extent feasible, the critical root zone (measurement of the dripline radius taken from the tree trunk to the tip of the farthest reaching branch as determined by a Certified Arborist or Registered Professional Forrester) of any tree to be retained shall be fenced with a 4-foot high brightly colored synthetic fence at the outermost edge of the critical root zone to prevent injury to the trees prior to grading and during construction activities in the project area. The fencing shall remain in place until all construction activities are complete. Trenching, grading, soil compaction, parking of vehicles or heavy equipment, stockpiling of construction materials, and/or dumping of materials shall not be allowed in the critical root zone.</p>

Source: City of Morgan Hill 2005

Impact Analysis

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

The project site is located in an urbanized area of Morgan Hill, and since the preparation of the 2005 EIR, has been partially developed with a gas station and fast-food restaurant as part of Phase I of the proposed project. Rare, sensitive, or special-status species, including birds that require specific habitat conditions are not typically present in developed areas. Nonetheless, trees and other vegetation onsite could potentially provide habitat for migratory birds, burrowing owls, and special-status bat species protected by the California Fish and Game Code, serving as habitat or nesting sites. Buildout of the proposed project could include tree and vegetation removal on the site. Impacts to protected nesting birds could occur if active nests are present in vegetation to be removed, or if birds in the vicinity are disturbed. Impacts to burrowing owls could occur with construction activities and destruction of habitat onsite. Impacts to special-status bat species could still occur with demolition of rural structures onsite and/or removal of trees. Mitigation Measures 3.4-1a, 3.4-1b, 3.4-2, and 3.4-3 of the 2005 EIR would still apply and would be required to reduce impacts to less-than-significant levels.

The City also adopted the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) that provides a region-wide conservation strategy that mitigates impacts on covered species on the basis of species and habitat needs. All project applicants for covered activities in the local plan area shall comply with the conditions on covered activities listed in Chapter 6 of the HCP/NCCP. Each planning permit application (or building permit application where no planning permit is required) for a covered activity in the local plan area shall include details of the methods and timing in which the project would be required to comply with the HCP/NCCP in the form and manner required by the City. In addition, the project would be required to comply with the Morgan Hill Burrowing Owl Mitigation Plan, which establishes citywide measures for the protection of the burrowing owl, such as requiring preconstruction surveys and mitigation fees.

With implementation of Mitigation Measures 3.4-1a, 3.4-1b, 3.4-2, and 3.4-3, nesting birds, burrowing owls, and special-status bat species would be protected from disturbance during construction on the project site. With mitigation, there would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR, and further analysis is not warranted. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
- c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

The project site is located in an urbanized area of Morgan Hill and is generally in the same condition as was analyzed in the 2005 EIR. There are no riparian areas or other sensitive natural communities on or directly adjacent to the project site. According to the National Wetlands Inventory, the nearest mapped wetland area to the project site is a freshwater pond located approximately 1 mile southeast of the project site (USFWS 2021). The project site is located approximately 650 feet northeast of the Cochrane Channel, which is a tributary of Coyote Creek. Development of the proposed project would not take place within at least 100 feet from the freshwater pond of the Cochrane Channel or their banks. The project site lacks sensitive natural communities and protected wetlands, the project would not have a direct adverse impact on biological resources.

As discussed in Section 10, *Hydrology and Water Quality*, the project would not result in impacts to water quality or increases in flow during construction or operation of the project site at the nearby channel. Therefore, no impact would occur. There would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR, and further analysis is not warranted. These topics will not be discussed in the Subsequent EIR.

NO IMPACT

- d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The project site is located in an urbanized area of Morgan Hill and lacks natural habitats or riparian corridors and does not connect habitat or open space areas. Therefore, with mitigation incorporated, the project would not interfere substantially with wildlife movement, and this impact would be less than significant. There would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR, and further analysis is not warranted. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The City of Morgan Hill Municipal Code includes a tree preservation ordinance under Chapter 12.32 which establishes regulations for the removal of significant trees in the City. In addition, Chapter 18.132 of the Municipal Code outlines the HCP and the Morgan Hill Burrowing Owl Mitigation Plan and would serve to protect biological resources through various policies, which generally call for the protection of habitat, such as trees. The project site currently does not have any existing trees that would be removed by the proposed project. As discussed under criterion a, the project would comply with existing regulations, avoidance measures, and mitigation fees in the HCP and Burrowing Owl Mitigation Plan. Therefore, the project would not conflict with any local policies or ordinances, and impacts would be less than significant with implementation of mitigation measures.

There would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR, and further analysis is not warranted. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The 2005 EIR did not explicitly address potential conflicts with the provisions of an adopted HCP, NCCP, or other HCP. The City of Morgan Hill adopted the Santa Clara Valley HCP on October 17, 2012 and incorporated the HCP by reference in Chapter 18.132 of the Morgan Hill Municipal Code. As discussed in criterion a, b, c, d, and e, the project site is located in an urbanized area of Morgan Hill and would be required to comply with Mitigation Measures 3.4-1a, 3.4-1b, 3.4-2, and 3.4-3, and applicable mitigation fees and mitigation measures that are identified in Chapter 6 of the HCP. Therefore, the project would have a less-than-significant impact on implementation of such plans. There would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR, and further analysis is not warranted. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

5 Cultural Resources

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	EIR Pages 3.5-17 to 3.5-19	No	No	No	No
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	EIR Pages 3.5-17 to 3.5-19	No	No	No	N/A
c. Disturb any human remains, including those interred outside of formal cemeteries?	EIR Pages 3.5-17 to 3.5-19	No	No	No	N/A

2005 EIR Summary

The 2005 EIR identified three residences on the project site. They were identified as 1195 Cochrane Road A (built 1930), 1195 Cochrane Road B (built 1912), and 1195 Cochran Road C (built 1940). The 2005 EIR found these residences ineligible for listing in the California Register of Historical Resources, and they were demolished. Research completed for the 2005 EIR furthermore did not identify any prehistoric sites, historic sites, or isolated artifacts. The 2005 EIR determined that impacts to undiscovered archaeological resources would be reduced to less-than-significant levels with implementation of Mitigation Measures 3.5-1a, 3.5-1b, and 3.5-1c.

Table 16 2005 EIR Mitigation Measures

Mitigation Measure	Description
Mitigation 3.5-1a	Should any previously undisturbed cultural, historic, or archaeological resources be uncovered in the course of site preparation, clearing or grading activities, all operations within 150 feet of the discovery shall be halted until such time as a qualified professional archaeologist can be consulted to evaluate the find and recommend appropriate action. If the find is determined to be significant, appropriate mitigation measures shall be formulated by the City of Morgan Hill and implemented by the project applicant.
Mitigation 3.5-1b	In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Coroner of Santa Clara County has determined whether the remains are subject to the Coroner's authority. This is in accordance with Section 7050.5 of the [2005] California Health and Safety Code. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of identification. Pursuant to Section 5097.98 of the [2005] Public Resource Code, the Native American Heritage Commission will identify a "Native American Most Likely Descendent" to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods.

Source: City of Morgan Hill 2005

Impact Analysis

- Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?*
- Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*
- Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Rincon completed a cultural resource assessment for the Cochrane-Morgan Hill Retail Ventures Project in March 2020. The assessment included a California Historical Resources Information System (CHRIS) records search, Native American outreach, archival research, pedestrian field survey, and preparation of a letter report included as Appendix CUL.

The results of the study identified no prehistoric or historic-period cultural resources on the project site. The extant data indicate that the project site exhibits a relatively low sensitivity for containing intact, subsurface archaeological deposits. The lack of reported archaeological resources within 0.5 mile of the project site indicates that the area is not highly sensitive for prehistoric or historic archaeological remains. This is supported by the field survey, which did not indicate the presence of historic or archaeological resources. A review of historical topographic maps and aerial photographs found that the area has remained largely undeveloped and was primarily used for agricultural purposes prior to the 1980s. It is unlikely that early historic period archaeological remains dating to the late nineteenth or early twentieth centuries would be present in the project site. As such, the analysis in the 2005 EIR remains valid for the current project, which would involve similar site disturbance to that studied in the 2005 EIR. Therefore, impacts related to cultural resources would be less than significant with implementation of 2005 Mitigation Measures 3.5-1a and 3.5-1b. These topics will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

6 Energy

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

- | | | | | | |
|---|-----|----|----|----|-----|
| a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | N/A | No | No | No | N/A |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | N/A | No | No | No | N/A |

2005 EIR Summary

The 2005 EIR does not address the issue area of energy in a specific section. However, in Section 6.1, *Irreversible Environmental Changes*, increased energy resource demand due to the construction and operation of the project was identified and described as a justified irreversible change. No further quantitative or qualitative analysis of energy was done in the 2005 EIR.

Energy Setting

As a state, California is one of the lowest per capita energy users in the US, ranked 50th in the nation, due to its energy efficiency programs and mild climate (US Energy Information Administration 2021). Electricity and natural gas are primarily consumed by the built environment for lighting, appliances, heating and cooling systems, fireplaces, and other uses such as industrial processes in addition to being consumed by alternative fuel vehicles. Most of California's electricity is generated in-state with approximately 30 percent imported from the Northwest and Southwest in 2020, but the state does rely on out-of-state natural gas imports for nearly 90 percent of its supply (California Energy Commission [CEC] 2021a and 2021b). In addition, approximately 33 percent of California's electricity supply in 2020 derived from renewable energy sources, such as wind, solar

photovoltaic, geothermal, and biomass (CEC 2021a). In 2018, Senate Bill (SB) 100 accelerated the state's Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy and zero-carbon resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. Electricity service would be provided to the project by Silicon Valley Clean Energy (SVCE), which sources electricity from Pacific Gas and Electric (PG&E) and uses PG&E's infrastructure to deliver it to customers. Pursuant to the City of Morgan Hill Municipal Code Chapter 15.63, natural gas infrastructure is prohibited in newly constructed buildings effective March 1, 2020. All future developments shall be all-electric developments with no natural gas infrastructure. Table 17 summarizes the electricity consumption for Santa Clara County, in which the project site would be located, and for PG&E, as compared to statewide consumption.

Table 17 2020 Annual Electricity Consumption

Energy Type	Santa Clara County	PG&E ¹	California	Proportion of PG&E Consumption	Proportion of Statewide Consumption ²
Electricity (GWh)	16,436	78,519	279,510	21%	6%

GWh = gigawatt-hours; PG&E = Pacific Gas and Electric

¹ Electricity would be provided by SVCE, which is delivered by PG&E.

² For reference, the population of Santa Clara County (1,934,171 persons) is approximately 5 percent of the population of California (39,466,855 persons) (California Department of Finance 2021).

Source: CEC 2021c

Petroleum fuels are primarily consumed by on-road and off-road equipment in addition to some industrial processes, with California being one of the top petroleum-producing states in the nation (CEC 2021d). Gasoline, which is used by light-duty cars, pickup trucks, and sport utility vehicles, is the most used transportation fuel in California with 12.6 billion gallons sold in 2020 (CEC 2021e). Diesel, used primarily by heavy-duty trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles, is the second most used fuel in California with 1.7 billion gallons sold in 2021e (CEC 2021e). Table 18 summarizes the petroleum fuel consumption for Santa Clara County, in which the project site would be located, as compared to statewide consumption.

Table 18 2020 Annual Gasoline and Diesel Consumption

Fuel Type	Santa Clara (million gallons)	California (million gallons)	Proportion of Statewide Consumption ¹
Gasoline	511	12,572	4%
Diesel	35	1,744	2%

¹ For reference, the population of Santa Clara County (1,934,171 persons) is approximately 5 percent of the population of California (39,466,855 persons) (California Department of Finance 2021).

Source: CEC 2021c

Energy consumption is directly related to environmental quality in that the consumption of nonrenewable energy resources releases criteria air pollutant and greenhouse gas (GHG) emissions into the atmosphere. The environmental impacts of air pollutant and GHG emissions associated with the project's energy consumption are discussed in detail in Section 3, *Air Quality*, and Section 8, *Greenhouse Gas Emissions*, respectively.

Methodology

Energy consumption from project construction and operational activities was estimated using the CalEEMod, version 2020.4.0 and post-model spreadsheets. CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., townhomes, mid-rise apartments, a hotel, and strip mall uses), and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described under *Project Description*.

Construction energy would be based on gasoline and diesel fuel consumed from construction equipment and vehicle trips traveling to and from the project site. Construction of the proposed project was analyzed based on the applicant-provided construction schedule and default-based construction equipment list. Construction would occur over approximately three overlapping phases (Phase 1, 2, and 3) from March 2023 to September 2025 (approximately 30 months/2.5 years). The schedule would be 6 days per week with construction active Monday through Saturday. The site would cut 37,510 cubic yards of material and balance with no hauling export or import onsite. It is assumed that all construction equipment used would be diesel-powered. This analysis assumes that the project would comply with applicable regulatory standards. The CalEEMod default assumptions for equipment and vehicle trip quantities and types were used in a post-model spreadsheet to calculate energy consumption. The spreadsheet computed the number of gallons of gasoline and diesel used during the construction period.

For operational energy usage, CalEEMod was used to model the electricity used by the proposed developments. The model was modified to exclude natural gas usage but the modeled natural gas usage from CalEEMod was converted into electricity and added to the operational electricity usage post-model. Fuel consumption from vehicle trips was also calculated in a spreadsheet using the CalEEMod computed annual vehicle miles traveled (VMT). In addition, three 150 kW emergency generators with diesel engines would be installed onsite.

Impact Analysis

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

The proposed project would use nonrenewable resources for construction and operation of the project. The anticipated use of these resources is detailed in the following subsections. Applicant-provided information and the CalEEMod outputs (Appendix AQ) were used to estimate energy consumption associated with the proposed project.

Construction Energy Demand

The project would require site preparation and grading, including hauling material offsite, pavement and asphalt installation, building construction, architectural coating, and landscaping and hardscaping. During project construction, energy would be consumed in the form of petroleum-

based fuels used to power off-road construction vehicles and equipment onsite, construction worker travel to and from the project site, and vehicles used to deliver materials to the site. As shown in Table 19, project construction would require approximately 75,112 gallons of gasoline and approximately 238,463 gallons of diesel fuel. These construction energy estimates are conservative, because they assume that the construction equipment used in each phase of construction is operating every day of construction.

Table 19 Estimated Fuel Consumption during Construction

Source	Fuel Consumption (gallons)	
	Gasoline	Diesel
Construction Equipment and Hauling Trips	N/A	238,463
Construction Worker Vehicle Trips	75,112	N/A
N/A = not applicable		
See Appendix EN for energy calculation sheets.		

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than 5 minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the U.S. EPA. Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Furthermore, per applicable regulatory requirements, such as 2019 CALGreen, the project would comply with construction waste management practices to divert a minimum of 65 percent of construction debris. These practices would result in efficient use of energy necessary to construct the project. In the interest of cost-efficiency, construction contractors also would not utilize fuel in a manner that is wasteful or unnecessary. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and construction impacts related to energy consumption would be less than significant.

Operational Energy Demand

Operation of the project would contribute to regional energy demand by consuming electricity, gasoline, and diesel fuels. Electricity would be used for heating and cooling systems, lighting, appliances, and water and wastewater conveyance, among other purposes. Gasoline and diesel consumption would be associated with vehicle trips generated by customers and employees. Table 20 summarizes estimated operational energy consumption for the proposed project. As shown therein, project operation would require approximately 841,565 gallons of gasoline and 130,786 gallons of diesel for transportation fuels, and 9 GWh of electricity.⁴ Vehicle trips associated with future residents, workers, customers, and deliveries would represent the greatest operational use of energy associated with the proposed project.

⁴ The estimated natural gas consumption from the CalEEMod annual output was converted into electricity usage and added to the total electricity usage.

Table 20 Estimated Project Annual Operational Energy Consumption (Transportation Fuels)

Source	Energy Consumption ¹	
Gasoline	841,565 gallons	92,392 MMBtu
Diesel	130,786 gallons	16,670 MMBtu
Electricity	9 GWh	31,629 MMBtu

MMBtu = million metric British thermal units; GWh = gigawatt-hours

¹ Energy consumption is converted to MMBtu for each source

See Appendix EN for energy calculation sheets and Appendix AQ for CalEEMod output results for electricity and natural gas usage.

The project would be required to comply with all standards set in the latest iteration of the California Building Standards Code (California Code of Regulations Title 24), which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources by the built environment during operation. California's CALGreen standards (California Code of Regulations Title 24, Part 11) require implementation of energy-efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards (California Code of Regulations Title 24, Part 6) require newly constructed buildings to meet energy performance standards set by the CEC. These standards are specifically crafted for new buildings to result in energy-efficient performance, so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. In addition, pursuant to CALGreen, plumbing fixtures used for the proposed project would be high-efficiency fixtures, which would minimize the potential for the inefficient or wasteful consumption of energy related to water and wastewater. Also, the emergency generators installed onsite would primarily operate for maintenance checks and readiness testing, which is limited to 50 hours per year pursuant to the BAAQMD *Permit Handbook* (2021). During emergency situations when access to electricity from the state grid is unavailable, the generators would be allowed to operate continuously without restriction, although the operation of the generators for emergency purposes does not represent a wasteful, inefficient, or unnecessary consumption of energy.

Furthermore, the proposed project would increase housing density in proximity to existing commercial, retail, and office uses, which would facilitate the use of transit and alternative transportation modes such as walking and biking. For example, future residents and workers could walk to the adjacent Cochrane Commons Phase I development, which includes retail stores (e.g., Target) and various restaurant options (e.g., fast-food and sit-down restaurants) or walk to the proposed retail onsite. In addition, the project is along Cochrane Road, which is served by the Santa Clara Valley Transportation Authority. Bus Route 87 is a local bus route that connects to Bus Route 68 and Express Route 168 with both providing provides stop between the San José Diridon Station and Gilroy Transit Center. These factors would minimize the potential of the project to result in the wasteful, inefficient, or unnecessary consumption of vehicle fuels. Therefore, project operation would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The City of Morgan Hill has not adopted a specific renewable energy or energy efficiency plan. The 2035 General Plan (City of Morgan Hill 2016) contains goals and policies related to energy conservation, including compliance with Title 24 energy regulations and encouraging project design that increases energy efficiency. As demonstrated in Table 21, the proposed project would not conflict with the energy-related policies of the City's General Plan.

Table 21 Project Consistency with Applicable General Plan Policies

Policy	Consistency
Policy NRE-15.6 Residential Near Transit. Encourage higher density residential and mixed-use development adjacent to the commercial centers and <i>transit corridors</i> – the land along or within walking distance of a street served by transit.	Consistent. With construction of the project, new high-density residences would be located adjacent to existing and future commercial centers. Adjacent to the project site is the existing Cochrane Commons Shopping Center, which includes retail and restaurants. The project would also include additional retail uses on-site. Public transit is also accessible, with the Santa Clara Valley Transportation Authority's Bus Route 87 being in walking distance along Cochrane Road. Bus Route 87 is a local bus route that connects to Bus Route 68 and Express Route 168 with both providing provides stop between the San José Diridon Station and Gilroy Transit Center. Thus, siting higher-density residences near commercial centers and transit corridors would encourage multimodal travel and less single-occupancy vehicle travel.
Policy NRE-15.11 Green Building. Promote green building practices in new development.	Consistent. The project would be required to comply with the required CalGreen standards and California Building Energy Efficiency Standards for new developments.
Policy NRE-16.1 Energy Standards for New Development. New Development, including public buildings, should be designed to exceed state standards for the use of energy.	Consistent. The project would be designed to exceed the Title 24 building energy efficiency standards. Energy-efficient appliances and lighting would be installed onsite along with water-efficient applicants and fixtures. The project would also include a solar photovoltaic system, the size of the system to be determined.
Policy NRE-16.2 Energy Conservation. Promote energy conservation techniques and energy efficiency in building design, orientation, and construction.	Consistent. The project would be constructed in accordance with City of Morgan Hill Municipal Code 15.63.040 and not include natural gas (which is a greenhouse gas) infrastructure. All buildings would be 100 percent electric and would be served by SVCE.
Policy NRE-16.5 Energy Efficiency. Encourage development project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by including components that promote energy efficiency.	Consistent. The project would be constructed in accordance with City of Morgan Hill Municipal Code 15.63.040 and would not include natural gas (which is a greenhouse gas) infrastructure. All buildings would be 100 percent electric and be served by SVCE. The base electricity from SVCE (e.g., GreenStart 2019 power mix) procures approximately 46% of its electricity from eligible renewable energy sources (CEC 2020b). This percent procured from eligible renewable percent procurement would also increase over time in accordance with State Bill 100 targets. Therefore, the project would construct developments that are energy efficiency and minimize direct and indirect air pollutant emissions.
Policy NRE-16.7. Renewable Energy. Encourage new and existing development to incorporate renewable energy generating features, like solar panels and solar hot water heaters.	Consistent. The project would include renewable energy features such as a solar photovoltaic system. A percentage of the electricity provided by SVCE, which will serve the project, is sourced from renewable energy sources. Thus, the project would incorporate renewable energy features.
Source: City of Morgan Hill 2016	

The proposed project would be required to comply with the residential and nonresidential mandatory measures in the 2019 CALGreen, which would reduce energy consumption compared to standard building practices. The proposed project would also be required to comply with the energy standards in the California Building Energy Efficiency Standards. Measures included in the proposed project to meet these energy standards include low-flow plumbing fixtures, water-efficient irrigation systems, a photovoltaic system, and energy-efficient lighting. Compliance with these regulations would avoid potential conflicts with adopted energy conservation plans. Therefore, the project would result in no impact to state and local plans for renewable energy or energy efficiency. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

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7 Geology and Soils

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

- a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

1. 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?	EIR pages 3.6-5 through 3.6-10	No	No	No	N/A
2. Strong seismic ground shaking?	EIR pages 3.6-5 through 3.6-10	No	No	No	N/A

		Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
3.	Seismic- related ground failure, including liquefaction?	EIR pages 3.6-5 through 3.6-10	No	No	No	N/A
4.	Landslides?	EIR pages 3.6-5 through 3.6-10	No	No	No	N/A
b.	Result in substantial soil erosion or the loss of topsoil?	EIR pages 3.6-5 through 3.6-10	No	No	No	Yes
c.	Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	EIR pages 3.6-5 through 3.6-10	No	No	No	N/A
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?	EIR pages 3.6-5 through 3.6-10	No	No	No	N/A

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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?	EIR pages 3.6-5 through 3.6-10	No	No	No	N/A
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	N/A	No	No	No	N/A

2005 EIR Summary

Impacts to Geology and Soils were analyzed in Section 3.6 of the 2005 EIR. The EIR concluded that the proposed project would not result in significant impacts to geology and soils

Geology and Soils impacts identified in the 2005 EIR are summarized as follows.

Seismic Ground Shaking

With implementation of mitigation measures, the project site would be considered suitable for development provided that the recommendations contained in a geotechnical investigation conducted by Twining Laboratories in 2004 are implemented. Furthermore, the project would be required to comply with California Building Code requirements and 2005 EIR Mitigation Measure 3.6-1 which would reduce impacts to less than significant.

Liquefaction

The risk of liquefaction throughout the project site, according to the geotechnical investigation conducted by Twining Laboratories, is low. However, subsurface conditions on the project site and depth to groundwater across the site would indicate that there is some potential for liquefaction at the site. Therefore, the 2005 EIR requires implementation of Mitigation Measure 3.6-2 to reduce impacts to a less-than-significant level.

Seismic Settlement

The 2005 EIR found that maximum seismic settlements of 0.25 inch could be expected at the project site. However, combined seismic and static settlements of up to 1.25 inches are anticipated. These settlements would exceed the tolerances for conventional shallow spread foundations and slabs on grade planned for the project. The 2005 EIR required implementation of Mitigation Measure 3.6-3 to reduce this impact to less than significant.

Soil Compressibility and Collapse potential

The 2005 EIR found that due to the compressible nature of the near surface soils, they would not provide adequate support for the proposed improvements in their existing condition. The 2005 EIR further required implementation of Mitigation Measure 3.6-4 to reduce this impact to a less-than-significant level.

Expansive Soils

The 2005 EIR found that there is a less-than-significant impact from unstable soils or geologic units and expansive soils, as development standards and compliance with Mitigation Measures 3.6-5 through 3.6-7 (Table 22), the Morgan Hill Building Code, and California Building Code would ensure structures are constructed to accommodate unstable or expansive soil units.

Table 22 2005 EIR Mitigation Measures

Mitigation Measure	Description
Mitigation 3.6-1	Structural damage to buildings resulting from ground shaking shall be minimized by following the requirements of the California Building Code and implementing the recommendations of the project geotechnical engineer. Structures at the site shall be designed and constructed to withstand anticipated earthquake loads. A structural engineer, experienced in the design and construction of commercial structures in areas of high seismicity, shall be retained by the project applicant to provide design and construction recommendations, as required by the City of Morgan Hill. Any such recommendations shall be made in conjunction with Final Map submittals.
Mitigation 3.6-2	All proposed structures at the project site shall be evaluated for liquefaction potential on a case-by-case basis as part of subsequent design-level geotechnical engineering investigations. If there is determined to be a potential for liquefaction, mitigation will be accomplished through compliance with the recommendations contained in the design-level geotechnical engineering reports with recommendations included as specifications in the construction contract documents.
Mitigation 3.6-3	Near-surface soils beneath buildings, exterior slabs, and pavements shall be over-excavated and recompacted, in accordance with the specifications to be recommended by the project geotechnical engineer. The depth of required over-excavation will vary depending on whether the improvements to be supported consist of building pads or foundations, exterior slabs on grade, or pavement areas.
Mitigation 3.6-4	The effects of soil compressibility and collapse potential shall be mitigated through over-excavation and compaction of soil beneath proposed structures, in accordance with the specifications to be recommended by the project geotechnical engineer. The depth of required over-excavation will vary depending on whether the improvements to be supported consist of building pads or foundations, exterior slabs on grade, or pavement areas.

Mitigation Measure	Description
Mitigation 3.6-5	All final design specifications to be recommended by the project geotechnical engineer shall be incorporated into the project design, including placement of non-expansive engineered fill below foundation slabs, and other measures to prevent saturation of soils beneath structures to be specified by the geotechnical report.
Mitigation 3.6-6	The proposed project shall utilize corrosion-resistant materials in construction. Buried metal objects would be protected by selecting materials resistant to mild corrosion per manufacturers' specifications.
Mitigation 3.6-7	Design-level geotechnical studies shall investigate the potential of bank instability at the proposed stormwater detention basins and recommend appropriate setbacks, if warranted. Final design recommendations to be recommended by the project geotechnical engineer shall be included as specifications in the construction contract documents.

Source: City of Morgan Hill 2005

Impact Analysis

- a.1. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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?*
- a.2. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*
- a.3. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*
- a.4. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

The proposed project would introduce new development in the same location considered in the 2005 EIR. Geologic conditions onsite and in the region remain generally the same as when analyzed in the 2005 EIR, and the proposed development would be generally similar in terms of scale. The impact would therefore be the same as for the previous project, the same mitigation measures would apply, and the issue was addressed adequately in the 2005 EIR. Mitigation measures included in the 2005 EIR require project-specific evaluation and design review, which would apply to the proposed project. These topics will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- b. *Would the project result in substantial soil erosion or the loss of topsoil?*

Grading and excavation activity during the construction of new proposed structures on the project site could result in soil erosion. However, as described in Section 10, *Hydrology and Water Quality*, with compliance with existing regulations, substantial erosion during construction would not occur. Therefore, this impact would be less than significant. There would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR, and further analysis is not warranted. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project 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. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

The proposed project would introduce new development in the same location considered in the 2005 EIR. Geologic conditions onsite and in the region remain generally the same as when analyzed in the 2005 EIR, and the proposed development would be generally similar in terms of scale. The impact would therefore be the same as for the previous project, the same mitigation measures would apply, and unstable and expansive soils were addressed adequately in the 2005 EIR. Mitigation measures included in the 2005 EIR require project-specific evaluation and design review, which would apply to the proposed project. These topics will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT IMPACT

- e. *Would the project 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?*

As discussed in the 2005 EIR Section 3.13, *Utilities*, the project would be serviced by wastewater collection and treatment systems, and no septic tanks or alternative wastewater disposal systems would be installed, which would be the same for the modified project. Therefore, the project would have no impacts beyond those identified in the 2005 EIR. This topic will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT IMPACT

- f. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The project site has historically been used for agriculture and is heavily disturbed due to discing,⁵ tilling, and planting practices associated with agricultural operations that could have destroyed or covered resources. Due to the site's heavily disturbed area and a field inspection conducted in 2005, unique paleontological resources are unlikely to occur on the project site. Additionally, due to the nature of paleontological resources, no new resources since the 2005 survey would be present onsite. The City of Morgan Hill is in an active geological area that has resulted in the existence of a rare metamorphic stone, Poppy Jasper (City of Morgan Hill 2016). No paleontological resources have been explicitly found in the City (City of Morgan Hill 2016), but it is always possible to inadvertently uncover unique resources during ground-disturbing activities (e.g., grading and site preparation). As such, implementation of Mitigation Measure 3.5-1a would reduce impacts to unique paleontological resources to less than significant. As paleontological conditions have not changed since the 2005 EIR and the modified project would involve a similar level of site disturbance as the original project,

⁵ A tillage practice used for soil preparation

there would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR, and further analysis is not warranted.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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8 Greenhouse Gas Emissions

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	N/A	Yes	Yes	Yes	N/A
b. Conflict with any applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases?	N/A	Yes	Yes	Yes	N/A

2005 EIR Summary

The 2005 EIR did not address the issue area of GHG emissions.

Impact Analysis

- Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Construction activities and the operation of the proposed project would generate GHG emissions. GHG emissions were not analyzed in the 2005 EIR, since it was not an environmental factor that needed to be considered under CEQA until 2010. Therefore, these are new circumstances that require an analysis and may result in new potentially significant impacts. This issue will be analyzed further in the Subsequent EIR.

POTENTIALLY SIGNIFICANT IMPACT

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9 Hazards and Hazardous Materials

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	EIR Pages 3.7-6 through 3.7-10	No	No	No	No
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	EIR Pages 3.7-6 through 3.7-10	No	No	No	No
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	N/A	No	No	No	N/A
d. Be located on a site that is included on a list of hazardous material 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?	N/A	No	No	No	N/A

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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 or excessive noise for people residing or working in the project area?	EIR Pages 3.7-6 through 3.7-10	No	No	No	N/A
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	EIR Pages 3.7-6 through 3.7-10	No	No	No	N/A
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	EIR Pages 3.7-6 through 3.7-10	No	No	No	N/A

2005 EIR Summary

Impacts to Hazards and Hazardous Materials were analyzed in Section 3.7 of the 2005 EIR. The EIR concluded that the proposed project would not result in significant impacts related to hazards and hazardous materials.

Hazards and Hazardous Materials impacts identified in the 2005 EIR are summarized as follows.

Soils Contaminated with Agricultural Chemicals

The 2005 EIR found that there are residual pesticides and metals, such as dichlorodiphenyldichloroethylene and Diazinon or chromium, present on the project site, but concentrations were low and not hazardous.

Asbestos-Containing Building Materials and Lead-Based Paint

The 2005 EIR found that the three residences and associated outbuildings constructed prior to 1978 on the project site include materials that contain asbestos, such as flooring materials, plaster, sheetrock/joint compound, insulators, exterior siding materials, and roofing materials.

Implementation of Mitigation Measure 3.7-1 would reduce health and safety impacts associated with the removal of asbestos-containing material to less-than-significant levels. These single-family units have since been demolished.

Septic Systems and Water Wells

The 2005 EIR found that there are four septic tanks reportedly present on the project site, although their locations were not identified during the Phase I site reconnaissance. Implementation of Mitigation Measure 3.7-2 would reduce impacts from residual septic systems onsite to less than significant.

There are four existing wells on the project site that could result in being conduits for groundwater contamination if not properly destroyed. Mitigation Measure 3.7-3 would reduce impacts from groundwater contamination through onsite water wells.

Polychlorinated Biphenyls in Pole-Mounted Transformers

The 2005 EIR identified seven pole-mounted transformers located throughout the site that would need to be removed by PG&E prior to site development in conjunction with the undergrounding of project utilities. This would remove potential hazard from polychlorinated biphenyls, which may be contained in the transformers.

Planned Fuel Station

The 2005 EIR found that the proposed fuel station would involve potentially hazardous storage and handling of gasoline on the project site. The fuel station would be required to comply with 2005 California Health and Safety Code Section 25503.5, which would require that any activity involving the handling of hazardous materials requires the establishment and implementation of a Hazardous Materials Business Response Plan. Furthermore, this state law requirement is implemented locally by the City of Morgan Hill's Hazardous Materials Storage Ordinance, which is administered for the City by the Santa Clara County Department of Environmental Health. The ordinance requires that the gasoline operator obtain a Hazardous Materials Storage Permit, which includes preparation of a Hazardous Materials Management Plan, which is to include a Hazardous Materials Inventory Statement, provisions for emergency response planning, double containment, monitoring, and financial responsibility. The City also requires a separate permit for underground storage tank installation, and the City of Morgan Hill Fire Department will conduct a series of inspections at various stages of tank installation and construction to ensure compliance with all standards and requirements. Additional compliance with BAAQMD regulations for the control of gasoline vapor emissions would be required and would meet CARB-efficiency mandates. Implementation of Mitigation Measure 3.7-4 would reduce impacts to less than significant.

Emergency Response Plan/Emergency Evacuation Plan

The 2005 EIR found that the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. There would be no impacts to emergency response plans or emergency evacuation plans.

Wildland Fire

The 2005 EIR found that since the project site consisted of rural residential uses and agricultural land and is not located in an area prone to wildland fire or excessive fuel loading, there would be no impact related to the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires.

Table 23 lists mitigation measures related to hazards and hazardous materials in the 2005 EIR.

Table 23 2005 EIR Mitigation Measures

Mitigation Measure	Description
Mitigation 3.7-1	Prior to demolition of any onsite structures, a full site assessment for lead-based paint shall be conducted by a California Department of Health Services approved Lead Inspector/Assessor. Prior to general demolition and site clearing activity, all identified deteriorating lead-based paint shall be removed by a licensed lead paint abatement contractor and properly disposed of in accordance with Title 22 of the California Code of Regulations.
Mitigation 3.7-2	Septic systems at the project site shall be properly removed in accordance with state regulations and the requirements of the Santa Clara County Environmental Health Department
Mitigation 3.7-3	Prior to commencement of site clearing and general demolition activities, the existing wells onsite shall be destroyed in accordance with state regulations and the requirements of the Santa Clara County Environmental Health Department and the Santa Clara Valley Water District (Ordinance 90-1).
Mitigation 3.7-4	The gasoline station operator shall obtain a Hazardous Materials Storage Permit from the Santa Clara County Fire Department for the proper handling and storage of gasoline and any other hazardous materials. In addition, air quality permits shall be required for the fuel station from the BAAQMD.

Source: City of Morgan Hill 2005

Impact Analysis

- a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

The proposed project would include residential and commercial retail land uses, which typically do not use or store large quantities of hazardous materials. Potentially hazardous materials such as fuels, lubricants, and solvents would be used by heavy machinery during construction of the project. The proposed project would be subject to current iterations of regulations discussed in the 2005 EIR regarding routine transport, use, or disposal of hazardous materials. The impact would therefore be the same as for the previous project, and the issue was addressed adequately in the 2005 EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

The proposed project would introduce new development in the same location considered by the 2005 EIR. No known changes in the conditions of the soils or groundwater at the site have occurred since 2005, and the proposed development would not include activities that use or store more hazardous materials than the Phase II project analyzed in the EIR. Because demolition already

occurred under Phase I of site development and the proposed project would not involve demolition, Mitigation Measures 3.7-1 through 3.7-3 have already been complied with and are not required for the modified project. Further, the gas station was previously constructed under Phase I of site development, and Mitigation Measure 3.7-4 has been complied with. The impact would therefore be the same as for the previous project, and this issue was addressed adequately in the 2005 EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

The 2005 EIR did not explicitly address the exposure of schools to hazardous materials from the project site. However, the nearest school to the project site is Live Oak High School, located approximately 3,600 feet (0.7 mile) southeast. Therefore, the project would not emit hazardous emissions or handle hazardous materials within 0.25 mile of a school. Impacts would be less than significant. There would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR. Further analysis is not warranted.

NO IMPACT

- d. *Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

The 2005 EIR did not analyze potential impacts from listed hazardous material sites. However, as discussed in the 2005 EIR, a Phase I environmental site assessment was prepared for the project site that included a review of regulatory lists pursuant to Government Code Section 65962.5 and concluded the project site is not located on a hazardous materials site. In addition, a search of the Department of Toxic Substances Control (DTSC) Envirostor database and the State Water Resources Control Board (SWRCB) Geotracker database conducted on September 9, 2021, confirmed the project site is not located on a hazardous materials site on either database (DTSC 2021, SWRCB 2021). No known changes in the conditions of the soils or groundwater at the site have occurred since 2005. Therefore, there would be no impacts and there would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR. Further analysis is not warranted.

LESS THAN SIGNIFICANT IMPACT

- 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 or excessive noise for people residing or working in the project area?*

The proposed project would introduce new development in the same location considered by the 2005 EIR. The impact would therefore be the same as for the previous project, and airport safety and noise hazards were addressed adequately in the 2005 EIR. This topic will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

NO IMPACT

- f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

As discussed above, the 2005 EIR found that the proposed project would not result in adverse effects on emergency response or evacuation plans. The project would be required to comply with federal, state, and local regulations, including the Morgan Hill Emergency Operations Plan.

Additionally, the City of Morgan Hill Fire Department reviews individual development proposals to ensure emergency access needs are met. The project would not impact or block existing roadways or prevent implementation of the Morgan Hill Emergency Operations Plan, which establishes policy direction for emergency planning, mitigation, response, and recovery activities in the City (City of Morgan Hill 2018). Therefore, impacts would be less than significant and there would be no new or substantially more severe impacts than the 2005 EIR. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

- g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

Wildland fire is discussed further in Section 20, *Wildfire*. The project site is not located in or near a Very High Fire Hazard Severity Zone mapped by CAL FIRE (CAL FIRE 2021). Therefore, the project would not expose people or structures to significant risks involving wildland fires. This impact would be less than significant. There would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR. Further analysis is not warranted. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

10 Hydrology and Water Quality

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	EIR Pages 3.8-7 through 3.8-13	No	No	No	N/A
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	N/A	No	No	No	Yes
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	EIR Pages 3.8-7 through 3.8-13	No	No	No	N/A
(i) Result in substantial erosion or siltation on- or off-site;	EIR Pages 3.8-7 through 3.8-13	No	No	No	N/A

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	EIR Pages 3.8-7 through 3.8-13	No	No	No	N/A
(iii) 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; or	EIR Pages 3.8-7 through 3.8-13	No	No	No	No
(iv) Impede or redirect flood flows?	EIR Pages 3.8-7 through 3.8-13	No	No	No	N/A
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	EIR Pages 3.8-7 through 3.8-13	No	No	No	N/A
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	N/A	No	No	No	N/A

2005 EIR Summary

Impacts to Hydrology and Water Quality were analyzed in Section 3.8 of the 2005 EIR. The EIR concluded that the proposed project would not result in significant impacts to hydrology and water quality.

Hydrology and Water Quality impacts identified in the 2005 EIR are summarized as follows.

Increased Stormwater Runoff

The 2005 EIR found that the proposed project would result in a substantial increase in stormwater runoff generated at the project site compared to existing conditions, but the project includes detention ponds, which have been designed to provide temporary storage of increased runoff in order to prevent increased flooding downstream. Detention basins on the project site would be fixed to accommodate Santa Clara Valley Water District (Valley Water) requirements and the City's detention design criteria. The stormwater to be temporarily stored in the planned detention ponds will be pumped to the adjacent Cochrane Channel at discharge rates, which are at or below pre-development levels, as required by Valley Water. Impacts would be less than significant.

Flooding

The 2005 EIR found that during a 100-year storm event, the project site may be subject to shallow flooding to depths of less than one foot; all finished floors will be on raised pads at least one foot above existing ground elevations to prevent flooding of the project buildings. During large storms such as a 100-year event, stormwater will back up at the storm drain inlets and allow to pond in the project parking areas. Final grades will be designed such that the resulting ponding depths will be less than 1 foot. In order to facilitate the conveyance of excess flood volumes from the project site, the proposed project will include overland release points to the north and northwest to direct surface flows toward Cochrane Channel. Incorporation of these features as part of the project design, as proposed, would ensure that the proposed project would have a less-than-significant impact on flooding.

Dam Failure Inundation

The 2005 EIR found that since the project site is located in the dam failure inundation area for Anderson Reservoir, development of the proposed project would have increased the number of people and structures exposed to dam failure risk and the potential for associated loss of life and property. However, studies conducted for the 2005 EIR found that the Anderson Dam was capable of withstanding a large-magnitude seismic event to the satisfaction of the California Division of Safety of Dams. Thus, the risk of total catastrophic dam failure was low, but there remained the potential for the containment dam to be structurally compromised resulting in a leak, which could have resulted in downstream flooding. This could have posed a public safety hazard to people who are at the project site during and immediately following such an event. Mitigation Measure 3.8-1 from the 2005 EIR would be required to reduce this impact to less than significant levels.

Construction-Related Impacts to Water Quality

The 2005 EIR found that during grading and construction, erosion of exposed soils and pollutants generated by site development activities may result in water quality impact to downstream bodies. Development of the proposed project would involve site clearing, mass grading, excavation, trenching, and final grading for roads, utilities, and building pads. Once vegetation is removed at the

project site, the exposed and disturbed soil would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport from the project site. Delivery, handling and storage of construction materials and wastes, as well as use of construction equipment onsite during the construction phase of the project, will introduce a risk for stormwater contamination, which could impact water quality. Spills or leaks from heavy equipment and machinery can result in oil and grease contamination of stormwater. Implementation of 2005 EIR Mitigation Measure 3.8-2, compliance with a Stormwater Pollution Prevention Plan, National Pollutant Discharge Elimination System (NPDES) permit, and an Erosion and Sedimentation Control Plan would reduce this impact to less than significant.

Urban Non-Point Source Pollution

The 2005 EIR found that the proposed project would generate urban non-point contaminants, which may be carried in stormwater runoff from paved surfaces to downstream water bodies. The introduction of new structures and surface parking lots could introduce new urban runoff contaminants such as petroleum products, heavy metals, and sediments from vehicles and litter. To reduce impacts from non-point source pollution, implementation of Mitigation Measure 3.8-3 would be required to reduce this impact to less than significant.

Table 24 lists mitigation measures related to hydrology and water quality in the 2005 EIR.

Table 24 2005 EIR Mitigation Measures: Hydrology and Water Quality

Mitigation Measure	Description
Mitigation 3.8-1	Prior to occupancy of the structures, the project applicant shall prepare an emergency evacuation plan for the proposed project. The emergency evacuation plan procedures shall be developed jointly with the project owner, City public safety staff, and potential tenants/users to identify appropriate emergency procedures in order to ensure the efficient and safe evacuation of employees and customers.
Mitigation 3.8-2	The project applicant shall prepare a comprehensive erosion control and water pollution prevention program, subject to review and approval by the City of Morgan Hill Public Works Department. This erosion and water pollution prevention program shall be implemented during grading and construction activities at the project site.
Mitigation 3.8-3	<p>The proposed project shall include structural and non-structural stormwater controls, in order to reduce non-point source pollutant loads. Specifically, the detention ponds planned at the northern end of the project site to temporarily store post-development runoff shall be designed to provide water quality treatment through settling of sediments prior to the discharge of the stormwater to Cochrane Channel. These dual-purpose ponds will provide both stormwater detention and water quality treatment, to a sufficient level to comply with the amended Provision C.3 of the SCVURPPP NPDES Phase 2 Permit requirements, if those requirements are deemed to be applicable to the proposed project (see Section 3.8.2 Regulatory Setting, above, for a full discussion). Additional post-construction BMPs to be implemented will include, but not be limited to, the following:</p> <ul style="list-style-type: none"> ▪ Impervious surfaces such as roads, parking lots, and driveways shall be routinely cleaned during both the “wet” and “dry” seasons to limit the accumulation of “first flush” contaminants. ▪ Features such as detention ponds shall be utilized to capture pollutants before the stormwater runoff enters the storm drainage system. ▪ Engineered products, such as storm drain inlet filters, oil/water separators, etc., shall be utilized to capture pollutants before the stormwater runoff enters the storm drainage system. ▪ The developer shall distribute educational materials to the first tenants of properties included in the project development. These materials shall address good housekeeping

Mitigation Measure	Description
	<p>practices relating to stormwater quality, prohibited discharges, and proper disposal of hazardous materials.</p> <ul style="list-style-type: none"> Common landscaped areas shall be subject to a program of efficient irrigation and proper maintenance, including minimizing use of fertilizer, herbicides and pesticides. The project tenants and users shall implement a trash management and litter control program to mitigate the impacts of gross pollutants on stormwater quality. This program shall include litter patrol, emptying trash receptacles in common areas, and reporting and investigating trash disposal violations. Storm drain inlets shall be labeled with the phrase “No dumping – flows to Bay,” or a similar phrase to mitigate the impact of potential for discharges of pollutants to the storm drain system. Restaurants in the development shall be designed to include contained areas for cleaning mats, containers and sinks connected to the sanitary sewers. Grease shall be collected and stored in a contained area and shall be removed regularly by a disposal recycling service. To this end, sinks shall be equipped with grease traps to provide for its collection.

Source: City of Morgan Hill 2005

Impact Analysis

- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Construction of the proposed project would involve development that would have the potential to impact water quality through increasing debris in stormwater runoff as well as the use of construction materials such as fuels, solvents, and paints. However, the project would be required to comply with the NPDES General Construction Permit and would be required to prepare a Stormwater Pollution Prevention Plan that requires the incorporation of BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. In addition, projects must comply with Best Management Practices (BMPs) as specified in the City of Morgan Hill’s Urban Storm Water Quality Management and Discharge Control Ordinance, as specified in Chapter 13.30 of the Municipal Code, that requires project applicants to comply with erosion and sediment control practices.

Operation of the project could also impact water quality from typical oil, grease, fuel, pesticides in landscaping, and other pollutants that runoff into stormwater. The project would create additional impervious surfaces and therefore must treat runoff with an approved and appropriately sized LID treatment system prior to offsite discharge in compliance with the Central Coast Regional Water Quality Control Board’s Post-Construction Requirements and must control post-project peak flows to not exceed pre-project peak flows for the 2-year through 10-year storm events. In addition, a Stormwater Management Plan must be submitted to the City that describes how runoff and associated water quality impacts from the project will be controlled by the project’s post-construction requirements. As the project would be required to comply with regulations under the NPDES permit, Regional Water Quality Control Board, and adopted City regulations, which would address impacts to water quality, impacts would be less than significant, consistent with the 2005 EIR. This topic will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT IMPACT

- b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*
- e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The 2005 EIR did not explicitly discuss impacts to groundwater. The project would increase the amount of impervious surfaces onsite, similar to what was analyzed under the 2005 EIR. However, the project would be required to implement site design measures, LID, and BMPs, which include infiltration features such as detention and retention basins that will contribute to groundwater recharge. Similar to the project as analyzed in the 2005 EIR, the project would not extract groundwater or directly interfere with the groundwater table through construction activities on the site, as ground disturbance would not occur below the water table.

Water for the project would be provided by the City of Morgan Hill from its existing supply sources, which include the underlying Santa Clara and Llagas Subbasins, which are actively managed in sustainable conditions by Valley Water as the exclusive Groundwater Sustainability Agency for both basins. As discussed under Section 19, *Utilities and Service Systems*, Valley Water uses imported surface water supplies to replenish the local ground water basins, including the Santa Clara and Llagas Subbasins, to maintain sustainable groundwater supply conditions. This is documented in the Water Supply Assessment (WSA), which is provided as Appendix WSA, and is informed by multiple long-range water supply planning and groundwater management documents, including:

- City of Morgan Hill 2020 Urban Water Management Plan
- Valley Water 2020 Urban Water Management Plan
- City of Morgan Hill 2021 Water System Management Plan
- Valley Water 2019 Annual Groundwater Report
- Valley Water 2020 Water Shortage Contingency Plan

The WSA provided as Appendix WSA determines that there is sufficient water supply available to meet the project's projected demands reliably over a 20-year projection and with consideration to varying climatic (drought) conditions. Therefore, the project would have no impacts beyond those previously identified in the 2005 EIR.

LESS THAN SIGNIFICANT IMPACT

- c.(i) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?*
- c.(ii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
- c.(iii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would 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?*
- c.(iv) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?*

The proposed project would introduce new development in the same location considered in the 2005 EIR. Drainage patterns onsite remain generally the same as when analyzed in the 2005 EIR, and the proposed development would be generally similar in terms of scale. The impact would therefore be the same as for the previous project, the same mitigation measures would apply, and the issue was addressed adequately in the 2005 EIR. These topics will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT IMPACT

- d. *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

The proposed project would introduce new development in the same location considered in the 2005 EIR. Since 2005, the Anderson Dam has been identified to have seismic safety concerns and is currently undergoing a capital earthquake retrofit to improve dam safety and to return the Anderson Reservoir to its original storage capacity. Flood hazard risk at the project is therefore slightly higher than the risk originally identified in the 2005 EIR. However, completion of the seismic retrofit repairs would ensure that the risk of flood to the project site is low. Tsunami, and seiche risk remain the same as when analyzed in the 2005 EIR, and the proposed development would be generally similar in terms of scale. The impact would therefore be the same as for the previous project, the same mitigation measures would apply, and the issue was addressed adequately in the 2005 EIR. Mitigation measures included in the 2005 EIR require an emergency evacuation plan, which would apply to the proposed project. These topics will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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11 Land Use and Planning

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

a. Physically divide an established community?	EIR Pages 3.9-7 through 3.9-8	No	No	No	N/A
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	EIR Pages 3.9-8 through 3.9-9	No	No	No	No

2005 EIR Summary

Impacts to Land Use and Planning were analyzed in Section 3.9 of the 2005 EIR. The EIR concluded that the proposed project would not result in significant impacts to land use and planning.

Land Use and Planning impacts identified in the 2005 EIR are summarized as follows.

Dividing an Established Community

The 2005 EIR found that impacts related to the disruption of an established community would be less than significant. The project site has a General Plan land use designation of Mixed Use Flex and Commercial in the City of Morgan Hill General Plan and a zoning designation of Planned Unit Development/Highway Commercial. The City of Morgan Hill General Plan designates the project site as the location of a subregional commercial site. The project would not physically divide an established community and the impact was determined to be less than significant.

Conflicts with Applicable Land Use Plan, Policy, or Regulations

The 2005 EIR found that the proposed project would not result in a conflict with existing policies adopted to avoid or mitigate an environmental impact. The proposed project includes Zoning and General Plan amendments to amend the zoning and General Plan designation to Mixed Use Flex for the Phase II development area. The residential uses would be located in the northern and middle portion of the project site, and the hotel and commercial retail would be located in the southern

portion. In addition, the proposed Zoning amendment would establish a precise development plan and development guidelines for the proposed project. The General Plan amendment would provide for the relocation of a future collector street extending from Mission View Drive north of Cochrane Road instead of extending from De Paul Drive (formerly St. Louise Drive) as designated on the City of Morgan Hill General Plan map. With implementation of mitigation measures in other resource areas, the project would be consistent with applicable General Plan goals and policies. Section 18.24.010 of the City of Morgan Hill Zoning Code defines the “CH” district as providing areas adjacent to the freeway that can accommodate highway and tourist-oriented uses and uses which require the high visibility of thoroughfare locations, such as the proposed project. The proposed Zoning amendment application would establish a precise development plan and development guidelines for the proposed project. The proposed project would be required to obtain a design permit in compliance with Section 18.108.040, Design Permit, of the City of Morgan Hill Zoning Code. Impacts would be less than significant.

Impact Analysis

a. Would the project physically divide an established community?

The modified project would involve development in the same location as the original project studied in the 2005 EIR, and similarly would not divide an established community. There would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR, and further analysis is not warranted. This topic will not be discussed in the Subsequent EIR.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The currently proposed project would amend the site-specific development standards from the original approved project. These development standards include permitted uses, parking and loading standards, and landscape treatment standards, among others. In addition, the project would maintain (with minor modifications) existing requirements for environmental protection as described in the 2005 EIR, which apply to the proper use of hazardous materials, energy and water conservation, waste reduction, dust suppression, noise reduction, and seismic safety. During buildout of the proposed project, new development would be required to adhere to site-specific development standards and environmental standards as listed throughout this document. The proposed project would require a General Plan amendment to change the land use designation to Mixed Use Flex, which would require compliance with residential and commercial design guidelines. Approval of the General Plan amendment would ensure that the proposed project would be consistent with policies in the City’s General Plan that intend to avoid or mitigate and environmental effect. New development on the project site would also be subject to the mitigation measures from the 2005 EIR as listed in this Initial Study, as well as standard conditions of approval that address environmental impacts and are applied by the City to individual projects. Therefore, if approved, the proposed project would not result in conflicts with Morgan Hill Municipal Code regulations adopted to avoid or mitigate environmental effects. Impacts would be less than significant. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

12 Mineral Resources

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	N/A	No	No	No	N/A
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	N/A	No	No	No	N/A

2005 EIR Summary

Impacts to mineral resources were analyzed in Section 6 of the 2005 EIR. The EIR concluded that the proposed project would not result in significant impacts to mineral resources, as the City of Morgan Hill General Plan and the General Plan EIR do not identify any mineral resource areas in the vicinity of the project site.

Impact Analysis

- Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

The proposed project would introduce new development in the same location considered in the 2005 EIR. The impact would therefore be the same as for the previous project, and the issue was addressed adequately in the 2005 EIR. These topics will not be discussed in the Subsequent EIR.

ADDRESSED IN PRIOR EIR

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13 Noise

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project result in:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	EIR Pages 3.10-11 through 3.10-17	No	No	No	N/A
b. Generation of excessive ground-borne vibration or groundborne noise levels?	N/A	No	No	No	N/A
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	N/A	No	No	No	N/A

2005 EIR Summary

Chapter 3.10 of the 2005 EIR analyzed the impacts related to onsite operational noise, traffic noise, and construction noise. The 2005 EIR found that operational activities, including delivery truck traffic, loading dock activity, the proposed outdoor garden center, roof-mounted mechanical equipment, trash service, parking lot cleaning, and parking lot activity could increase noise levels on the project site. This impact was determined to be less than significant with mitigation incorporated.

The 2005 EIR also stated that the project would increase the number of vehicle trips, which could increase noise levels at the surrounding sensitive receivers, resulting in a significant impact. The 2005 EIR addressed the traffic impact by analyzing the construction of a sound barrier to reduce noise levels attenuating at the surrounding residential uses, but it was concluded the sound barrier was infeasible due to required barrier openings and safety hazards related to inadequate sight distances for vehicle ingress and egress. Additionally, the 2005 EIR noted the nearby residential uses were located on commercial land use and determined the buildings to become commercial property due urbanization of the local area. Therefore, the impact was determined to be significant and unavoidable in the short term. The 2005 EIR estimated that construction and demolition would generate noise ranging from 85 to 88 dBA, causing a less-than-significant impact with mitigation incorporated. The 2005 EIR did not address the issue areas of groundborne vibration or aircraft noise.

Mitigation measures related to noise were not included in the 2005 EIR.

Overview of Noise and Vibration

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

HUMAN PERCEPTION OF SOUND

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy), that a change of 5 dBA is readily perceptible (8 times the sound energy), and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

SOUND PROPAGATION AND SHIELDING

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions.

Sound levels are described as either a “sound power level” or a “sound pressure level,” which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as L_{pw}) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers, such as an eardrum or microphone, which is the sound pressure level. Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this “shielding” depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA’s guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

DESCRIPTORS

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. The noise descriptors used for this study are the equivalent noise level and day-night noise level (L_{eq} and L_{dn}).

L_{eq} is one of the most frequently used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A-weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level in the sampling period, and the L_{min} is the lowest noise level in the measuring period. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (L_{DN}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.). Community noise can also be measured using Community Noise Equivalent Level (CNEL or L_{DEN}), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013).⁶ The relationship between the peak-hour L_{eq} value and the L_{dn} /CNEL depends on the distribution of noise during the day, evening, and night. However, noise levels described by L_{dn} and CNEL usually differ by 1 dBA or less. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 CNEL, while areas near arterial streets are in the 50 to 60+ CNEL range (FTA 2018).

⁶ Because DNL and CNEL are typically used to assess human exposure to noise, the use of A-weighted sound pressure level (dBA) is implicit. Therefore, when expressing noise levels in terms of DNL or CNEL, the dBA unit is not included.

Groundborne Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures. Vibration may be felt, or manifest as an audible low-frequency rumbling noise (referred to as groundborne noise) and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Typically, ground-borne vibration generated by man-made activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared vibration velocity. The PPV and root mean squared velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (Caltrans 2020).

High levels of groundborne vibration may cause damage to nearby building or structures; at lower levels, groundborne vibration may cause minor cosmetic (i.e., non-structural damage) such as cracks. These vibration levels are nearly exclusively associated with high-impact activities such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation. The American Association of State Highway and Transportation Officials (AASHTO) has determined vibration levels with potential to damage nearby buildings and structures; these levels are identified in Table 25.

Table 25 AASHTO Maximum Vibration Levels for Preventing Damage

Type of Situation	Limiting Velocity (in/sec)
Historic sites or other critical locations	0.1
Residential buildings, plastered walls	0.2–0.3
Residential buildings in good repair with gypsum board walls	0.4–0.5
Engineered structures, without plaster	1.0–1.5
in/sec = inches per second	
Source: Caltrans 2020	

Numerous studies have been conducted to characterize the human response to vibration. The vibration annoyance potential criteria recommended for use by Caltrans, which are based on the general human response to different levels of groundborne vibration velocity levels, are described in Table 26.

Table 26 Vibration Annoyance Potential Criteria

Human Response	Vibration Level (in/sec PPV)	
	Transient Sources	Continuous/Frequent Intermittent Sources ¹
Severe	2.0	0.4
Strongly perceptible	0.9	0.10
Distinctly perceptible	0.25	0.04
Barely perceptible	0.04	0.01

in/sec = inches per second; PPV = peak particle velocity

¹ Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2020

Project Noise Setting

The predominant noise source on and around the project site is vehicular traffic on Cochrane Road and U.S. 101. Ambient noise levels are generally highest during the daytime and rush hour unless congestion substantially slows speeds. Three 15-minute noise level measurements were collected by Rincon on July 16, 2021, between 8:03 a.m. and 9:20 a.m. using an Extech (Model 407780A) ANSI Type 2 integrating sound level meter. Short Term Noise Measurement (ST) 1 was taken along the western boundary of the site along Cochrane Road; ST 2 was taken at the existing development south of the project site near U.S 101; and ST 3 was taken north of the project site along Mission View Drive to determine ambient noise levels near the residences adjacent to the project boundary.

Table 27 summarizes the noise measurement results and Figure 4 shows the noise measurement locations. Measured noise levels are provided in L_{eq} for the measurement period; L_{min} and L_{max} are also provided. Detailed sound level measurement data are included in Appendix NOI.

Table 27 Project Vicinity Sound Level Monitoring Results

#	Measurement Location	Sample Times	Approximate Distance to Primary Noise Source	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)
ST1	Southeast of project site along Cochrane Road	8:03: a.m. – 8:18 a.m.	45 feet to centerline of Cochrane Road; parking lot activity from adjacent retail space audible	67.6	52.2	79.4
ST2	Southwest of project site, near U.S. 101	8:47 a.m. – 9:02 a.m.	320 feet to centerline of U.S. 101; adjacent retail and parking lot audible	62.5	59.3	68.9
ST3	North of project site near along Mission Drive adjacent from Lantana/Wisteria Community Park	9:20 a.m. – 9:35 a.m.	30 feet to centerline of Mission View Drive; adjacent park activity audible	54.8	51.0	72.4

See Appendix NOI for noise monitoring data.

Source: Rincon field visit on July 16, 2021.

Figure 4 Sound Level Measurement Locations

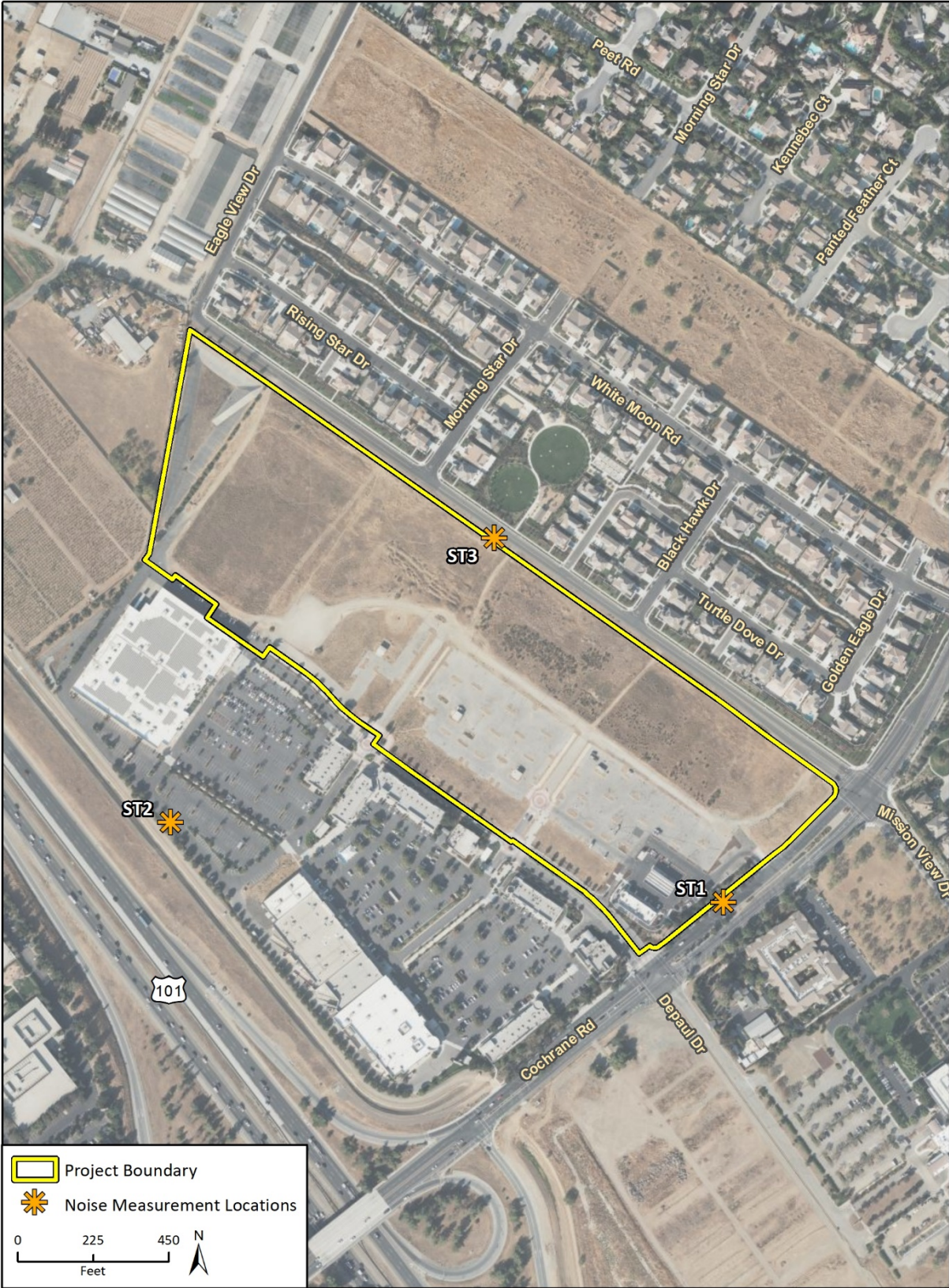


Fig X Noise Measurement Locations

Regulatory Setting

a. Federal Regulations

FTA Transit and Noise Vibration Impact Assessment Manual

The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction in their *Transit and Noise Vibration Impact Assessment Manual* (FTA 2018). For residential, commercial, and industrial uses, the daytime noise threshold is 80 dBA L_{eq} , 85 dBA L_{eq} , and 90 dBA L_{eq} for an 8-hour period, respectively.

b. State Regulations

California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires each county and city to adopt a General Plan that includes a Noise Element prepared per guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. CEQA requires all known environmental effects of a project be analyzed, including environmental noise impacts.

California Noise Control Act of 1973

California Health and Safety Code Sections 46000 through 46080, known as the California Noise Control Act, find that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The act also finds that there is a continuous and increasing bombardment of noise in urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the California to provide an environment for all Californians that is free from noise, which jeopardizes health and/or welfare.

c. Local Regulations

Morgan Hill General Plan

The City of Morgan Hill Safety, Services and Infrastructure Element (SSI) in the Morgan Hill 2035 General Plan contains goals and policies that are designed to include noise control in the planning process in order to maintain compatible land uses with acceptable environmental noise levels. The SSI Element establishes the following goals and policies that would apply to the proposed project:

Goal SSI-8: Prevention of noise from interfering with human activities or causing health problems.

Policy SSI-8.1: *Exterior Noise Levels.* Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (see Table 28), as follows:

- Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or

lower cannot be achieved after the application of reasonable and feasible mitigation, an L_{dn} of 65 dBA may be permitted.

- Indoor noise levels should not exceed an L_{dn} of 45 dBA in new residential housing units.
- Noise levels in new residential development exposed to an exterior L_{dn} 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA L_{dn} , recognizing that train noise is characterized by relatively few loud events.

Policy SSI-8.5: *Traffic Noise Level Standards.* Consider noise level increases resulting from traffic associated with new projects significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn} , or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

Policy SSI-8.6: *Stationary Noise Level Standards.* Consider noise levels produced by stationary noise sources associated with new projects significant if they substantially exceed existing ambient noise levels.

Policy SSI-8.7: *Other Noise Sources.* Consider noise levels produced by other noise sources (such as ballfields) significant if an acoustical study demonstrates they would substantially exceed ambient noise levels.

Table 28 City of Morgan Hill Land Use Compatibility Standards

Land Use Category	Normally Acceptable ¹	Conditionally Acceptable ²	Normally Unacceptable ³	Clearly Unacceptable ⁴
Residential Low-Density Single-Family, Duplex, Mobile Home	50-60	55-70	70-75	75-85
Residential, Multiple-Family	50-65	60-70	70-75	75-85
Transient Lodging, Motel, Hotels	50-65	60-70	70-80	80-85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-70	60-70	70-80	80-85
Auditoriums, Concert Halls, Amphitheaters	NA	50-70	65-85	NA
Sports Arena, Outdoor Spectator Sports	NA	50-75	70-85	NA
Playgrounds, Neighborhood Park	50-70	67-75	NA	73-85
Golf Course, Riding Stables, Water Recreation, Cemeteries	50-75	70-80	NA	80-85

Land Use Category	Normally Acceptable ¹	Conditionally Acceptable ²	Normally Unacceptable ³	Clearly Unacceptable ⁴
Office Buildings, Businesses, Commercial and Professional	50-75	67-77	75-85	NA
Industrial, Manufacturing Utilities, Agricultural	50-75	70-80	75-85	NA

¹ Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

² Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

³ Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements shall be made and needed noise insulation features shall be included in the design.

⁴ Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: City of Morgan Hill 2016

City of Morgan Hill Municipal Code

To implement the City's noise policies, the City adopted Chapter 8.28 Noise (Noise Ordinance) in the Morgan Hill Municipal Code. The City's Noise Ordinance Section 8.28.10 declares as follows:

- That the making, creation or maintenance of loud, unnecessary, unnatural or unusual noises which are prolonged, unusual and unnatural in their time, place and use affect and are a detriment to the public health, comfort, convenience, safety, welfare and prosperity of the residents of the City
- That the necessity in the public interest for the provisions and prohibitions set forth in this chapter is declared as a matter of legislative determination and public policy, and it is further declared that the provisions of this chapter are in pursuance of, and for the purpose of, securing and promoting the public health, comfort, convenience, safety, welfare and prosperity and the peace and quiet of the City and its inhabitants

Section 8.28.040 states unlawful noises applicable to the project, which include:

- C. Blowers, Fans, and Combustion Engines. The operation of any noise-creating blower, power fan or internal combustion engine, the operation of which causes noise due to the explosion of operating gases or fluids, unless the noise from such blower or fan is muffled and such engine is equipped with a muffler device to deaden such noise;
- D. Construction Activities.
 1. "Construction activities" are defined as including, but not limited to, excavation, grading, paving, demolition, construction, alteration or repair of any building, site, street or highway, delivery or removal of construction material to a site, or movement of construction materials on a site. Construction activities are prohibited other than between the hours of 7:00 a.m. and 8:00 p.m., Monday through Friday and between the hours of 9:00 a.m. to 6:00 p.m. on Saturday. Construction activities may not occur on Sundays or federal holidays. No third person, including, but not limited to, landowners, construction company owners, contractors, subcontractors, or employers, shall permit or allow any person working on construction activities which are under their ownership,

control or direction to violate this provision. Construction activities may occur in the following cases without violation of this provision:

- a. In the event of urgent necessity in the interests of the public health and safety, and then only with a permit from the chief building official, which permit may be granted for a period of not to exceed three days or less while the emergency continues and which permit may be renewed for periods of three days or less while the emergency continues.
 - b. If the chief building official determines that the public health and safety will not be impaired by the construction activities between the hours of 8:00 p.m. and 7:00 a.m., and that loss or inconvenience would result to any party in interest, the chief building official may grant permission for such work to be done between the hours of 8:00 p.m. and 7:00 a.m. upon an application being made at the time the permit for the work is issued or during the progress of the work.
 - c. The City Council finds that construction by the resident of a single residence does not have the same magnitude or frequency of noise impacts as a larger construction project. Therefore, the resident of a single residence may perform construction activities on that home during the hours in this subsection, as well as on Sundays and federal holidays from 9:00 a.m. to 6:00 p.m., provided that such activities are limited to the improvement or maintenance undertaken by the resident on a personal basis.
 - d. Public work projects are exempt from this section and the public works director shall determine the hours of construction for public works projects.
2. If it is determined necessary in order to ensure compliance with this section, the chief building official may require fences, gates or other barriers prohibiting access to a construction site by construction crews during hours in which construction is prohibited by this subsection. The project manager of each project shall be responsible for ensuring the fences, gates or barriers are locked and/or in place during hours in which no construction is allowed. This subsection shall apply to construction sites other than public works projects or single dwelling units which are not a part of larger projects.
- G. Loading or Unloading Vehicles and Opening Boxes. The creation of loud and excessive noise in connection with loading or unloading any vehicle or the opening and destruction of bales, boxes, crates and containers;
- J. Pile Drivers, Hammers and Similar Equipment. The operation, between the hours of 8:00 p.m. and 7:00 a.m. of any pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist or other appliance, the use of which is attended by loud or unusual noise;
- K. Radios, Phonographs, Musical Instruments and Similar Devices.
1. The using or operating, or permitting to be played, used or operated, of any radio receiving set, musical instrument, phonograph or other machine or device for the producing or reproducing of sound in such manner as to disturb the peace, quiet and comfort of the neighborhood inhabitants or at any time with louder volume than is necessary for convenient hearing for the persons who are in the room, vehicle or chamber in which such machine or device is operated and who are voluntary listeners thereto, and
 2. The operation of any such set, instrument, phonograph, machine or device between the hours of 11:00 p.m. and 7:00 a.m. in such manner as to be plainly audible at a distance

of fifty feet from the building, structure or vehicle in which such device is located which shall be prima facie evidence of a violation of the provisions of this section

Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Some land uses are considered more sensitive to ambient noise and groundborne vibration levels than others. For example, residences, schools, and hospitals are generally more sensitive to noise than are people at commercial and industrial establishments (Morgan Hill 2016).

Vibration-sensitive receivers, which are similar to noise-sensitive receivers, include residences, schools, and hospitals. Vibration-sensitive receivers also include buildings where vibrations may interfere with vibration-sensitive equipment that is affected by vibration levels that may be well below those associated with human annoyance (e.g., recording studios or medical facilities with sensitive equipment).

The approved EIR identified single-family residential receivers located on the southeast corner of the project site near Mission View Drive and Cochrane Road. These single-family units have since been demolished as the zoning was changed to commercial, and, hence, these are no longer considered noise-sensitive receivers in this analysis. Therefore, the sensitive receivers nearest to the site consist of single-family residences approximately 55 feet to the north of the project site across Mission View Drive.

Impact Analysis

- a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Construction

Construction noise was estimated using the FHWA Roadway Construction Noise Model (RCNM) (FHWA 2006). RCNM predicts construction related equipment noise levels for a variety of construction and demolition operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, construction noise levels were estimated at noise sensitive receivers near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation of 6 dBA per doubling of distance for stationary equipment.

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle⁷ of the activity to determine the L_{eq} of the operation (FHWA 2018). Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some will have higher continuous noise levels than others, and some have high-impact noise levels.

Construction activity would result in temporary noise in the project area, exposing surrounding sensitive receivers to increased noise levels. The project would involve site preparation, grading, building construction, paving, and architectural coating. Construction noise would typically be higher during the heavier periods of initial construction (i.e., grading) and would be lower during the

⁷ The cycle of operation of a machine or other device which operates intermittently rather than continuously

later construction phases. Typical heavy construction equipment during project grading could include dozers, front-end loaders, and graders. It is assumed that diesel engines would power all construction equipment. Construction equipment would not all operate at the same time or location. In addition, construction equipment would not be in constant use during the 8-hour operating day.

Project construction would occur nearest to single-family residences to the north and northeast of the project site. Over the course of a typical construction day, construction equipment would be located as close as 55 feet to adjacent properties but would typically be located at an average distance farther away due to the nature of construction and the size of the project (i.e., construction equipment is mobile throughout a typical construction day, moving vertically and horizontally across the project site). Therefore, it is assumed that over the course of a typical construction day, the construction equipment would operate at an average distance 200 feet from the residences to the north of the project site.

Construction activities would be limited to between the hours of 7:00 a.m. and 8:00 p.m. on weekdays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturday pursuant to the City's Noise Ordinance Section 8.28.040(D)(1). A potential high-intensity construction scenario includes a dozer, grader and front-end loader working during grading to excavate and move soil. At a distance of 200 feet, a dozer, grader and front-end loader would generate a noise level of 71 dBA L_{eq} (RCNM calculations are included in Appendix NOI). This would be below the FTA threshold of 80 dBA L_{eq} (8-hour) for construction noise at a residential land use. In addition, construction would be required to occur in the Municipal Code allowed hours of 7:00 a.m. to 8:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday. Therefore, impacts from construction equipment would be less than significant.

Operation

The proposed project would consist of vehicular noise on internal roadways and parking lots, delivery truck traffic, loading dock activity, trash service, parking lots, and HVAC noise.

Delivery Trucks

As described in the 2005 EIR, noise generated by delivery trucks depends primarily on the truck. Maximum noise levels generated by diesel trucks pulling in and out of loading docks ranges from 73 to 80 dBA measured at a distance of 50 feet. The maximum instantaneous A-weighted noise levels generated by step vans and smaller gasoline-powered delivery trucks ranges from 60 to 69 dBA at a distance of 50 feet. Estimated deliveries for the proposed commercial use would be assumed to occur no earlier or later than the approved store hours in the 2005 EIR. Estimated deliveries for the proposed project would occur from 8:00 a.m. to noon for local vendors and no deliveries are anticipated to occur between 10:00 p.m. and 6:00 a.m. Additionally, delivery trucks associated with the proposed project buildings would be located at a distance greater than 50 feet and would attenuate from the building locations to the nearest sensitive receivers through building attenuation and distance. Therefore, similar to the findings in the 2005 EIR, delivery truck noise would be less than significant.

Loading Docks

The 2005 EIR estimated noise for anticipated loading dock activities would generate noise levels of 80 dBA at a distance of 50 feet. According to the 2005 EIR, field observations made at similar facilities indicate that noise from the described loading activities are generally not audible or

measurable from offsite locations. The proposed commercial use loading dock activities would be consistent with previous field observations from the 2005 EIR and would not create any new or significant noise levels from loading dock activities. Therefore, similar to the findings in the 2005 EIR, delivery truck noise would be less than significant.

Parking Lot

As shown in the proposed project description, new parking spaces would be distributed through the project site next to internal roadways. Parking lot activities can generate instantaneous or short-term noise from car doors slamming, beeps, alarms, tire movements, engines, radios, and infrequent use of sweepers. However, parking lot noise would be consistent with adjacent commercial land uses in the vicinity of the project site. Parking lot noise also would not typically have a substantial contribution to hourly equivalent noise levels from transportation sources near the project site, relative to measured noise levels reaching 68 dBA L_{eq} along Cochrane Road and 55 dBA L_{eq} along Mission View Drive. Additional onsite noise sources such as parking lot cleaning would also be typical of noise generated by neighboring land uses and would not substantially increase ambient noise levels. Therefore, onsite operations would have a less-than-significant impact on noise-sensitive receivers.

Heating, Ventilation, and Air Conditioning Units

The primary onsite operational noise source from the project would be HVAC units. Specific planning data for the future HVAC systems are not available at this stage of project design, but this analysis assumes the use of typical HVAC systems for commercial or multifamily residential sites. The residential units used 2.5-ton Carrier 24ABA4030 air conditioner with Puron refrigerant, which has a sound power level of 76 dBA (see Appendix NOI for manufacturer's specifications). The project was assumed to contain 390 HVAC units based upon 1 ton of HVAC per 600 square feet of building space, as shown in Table 29. The commercial and hotel units used in this analysis include a 16.7-ton Carrier 38AUD25 split system condenser (see Appendix NOI for manufacturer's specifications). The project was assumed to contain 34 HVAC units based upon 1 ton of HVAC per 600 square feet of building space, as shown in Table 29. Based on the location of the proposed buildings, it is anticipated that the rooftop-mounted HVAC units would be installed on each of the proposed buildings located approximately 50 feet from the nearest offsite sensitive receivers north of the project site boundary (See Appendix NOI for the manufacturer's noise data and HVAC noise calculations).

Table 29 Modeled HVAC

Use/Description	Building Square Footage	Model	Estimated HVAC Tons	Estimated HVAC Units	Sound Power Level per Unit
Multi-Family Housing Use	585,000	24ABA4030	975	390	76
Commercial/Hotel Use	338,280	38AUD25	564	34	85

See Appendix NOI for sample HVAC specification sheets.

The project would include 34 HVAC units for the proposed commercial and hotel land use and 390 HVAC units for the proposed multifamily land use. HVAC units are considered continuous noise sources. Per Morgan Hill General Plan Policy Goal SSI-8.1, project impacts would be significant if exterior noise levels exceed 65 dBA L_{eq} in exterior areas. The combined operation of 424 HVAC units

would generate an estimated noise level of 52 dBA L_{eq} . The addition of a 52 dBA L_{eq} noise source to the ambient noise level of 55 dBA L_{eq} at the nearest offsite sensitive receivers north of the project site boundary noise level would only increase noise levels to approximately 57 dBA L_{eq} (Appendix NOI). This would be lower than the MHMC Section 30-469 exterior noise level threshold of 65 dBA L_{eq} . Therefore, impacts related to HVAC equipment noise would be less than significant.

Traffic Noise

Noise affecting the project site is primarily from traffic on US 101. Project traffic was estimated using the ADT, which utilized the trip rate derived from the project Traffic Impact Analysis PM Peak Hour rates and most recent project approved and proposed land uses. Project traffic intersection movements from the traffic study were used to estimate project ADT for each segment. PM Peak Hour traffic was shown to consist of higher traffic volumes than AM Peak Hour; therefore, PM Peak Hour traffic was utilized for conservative purposes. The total project trips for the proposed project were estimated to be approximately 9,857 ADT, while trips associated with the approved project considered by the 2005 EIR were estimated to be approximately 12,048 ADT (Hexagon Transportation Consultants, Inc. 2021).⁸ Existing traffic volume estimates along the adjacent street segments to the project site combined with proposed project ADT and approved project ADT are shown in Table 30, which shows a reduction of proposed ADT compared to approved ADT. Additionally, Year 2030 Cumulative traffic volumes were obtained from the traffic analysis traffic study and are shown in Table 31.

Table 30 Existing and Proposed ADT Volume

Street	Segment	Existing ADT	Existing Plus Approved Project ADT	Existing Plus Proposed Project ADT
Cochrane Road	De Paul Drive to Mission View Drive (West)	13,720	19,910	15,490
Cochrane Road	Mission View Drive to White Moon Drive (East)	5,440	6,060	5,700
Mission View Drive	Cochrane Road to Mission Avenida (North)	1,100	7,290	4,080
Mission View Drive	Black Hawk Drive to Cochrane Road (South)	8,280	12,540	10,870
Cochrane Road	U.S. 101 Northbound Ramps to DePaul Drive (West)	18,390	25,890	24,470
Cochrane Road	DePaul Drive to Mission View Drive (East)	12,560	18,750	14,410
DePaul Drive	Cochrane Road to Project Site (North)	10,740	16,930	16,290

⁸ ADT was derived from Hexagon Transportation Consultants, Inc. Traffic Impact Study, which utilized 498 dwelling units, 150 occupied hotel rooms, and 140,000 square feet of retail for the proposed project. Additionally, the study utilized 286,492 square feet of retail and 14 movie theater screens for the approved project.

Street	Segment	Existing ADT	Existing Plus Approved Project ADT	Existing Plus Proposed Project ADT
DePaul Drive	South to Cochrane Road (South)	470	470	470
Cochrane Road	U.S. 101 Southbound Ramps to U.S. 101 Northbound Ramps (West)	17,230	21,210	21,090
Cochrane Road	U.S. 101 Northbound Ramps to De Paul Drive (East)	18,520	24,540	24,150
US 101 Northbound Ramps	Cochrane Road to the North (North)	2,180	3,050	3,220
US 101 Southbound Ramps	From the south to Cochrane Road (South)	5,710	6,880	6,440

ADT = average daily trips.

Source: Hexagon Transportation Consultants, Inc. 2021

Table 31 Cumulative Year 2030 ADT Volumes

Street	Segment	Cumulative 2030 Without Project ADT	Cumulative 2030 With Approved Project ADT	Cumulative 2030 With Proposed Project ADT
Cochrane Road	De Paul Drive to Mission View Drive (West)	21,8550	28,040	23,620
Cochrane Road	Mission View Drive to White Moon Drive (East)	7,790	8,410	8,050
Mission View Drive	Cochrane Road to Mission Avenida (North)	1,100	1,025	35,800
Mission View Drive	Black Hawk Drive to Cochrane Road (South)	14,900	19,200	17,530
Cochrane Road	U.S. 101 Northbound Ramps to DePaul Drive (West)	25,690	33,190	31,770
Cochrane Road	De Paul Drive to Mission View Drive (East)	19,260	25,450	21,110
DePaul Drive	Cochrane Road to Project Site (North)	13,690	19,880	19,240
DePaul Drive	South to Cochrane Road (South)	1,580	1,580	1,580

Street	Segment	Cumulative 2030 Without Project ADT	Cumulative 2030 With Approved Project ADT	Cumulative 2030 With Proposed Project ADT
Cochrane Road	US 101 Southbound Ramps to US 101 Northbound Ramps (West)	22,380	26,360	26,240
Cochrane Road	US 101 Northbound Ramps to De Paul Drive (East)	24,530	30,550	30,160
US 101 Northbound Ramps	Cochrane Road to the North (North)	27,770	3,640	3,810
US 101 Southbound Ramps	From the south to Cochrane Road (South)	6,300	7,470	7,030

ADT = average daily trips
Source: Hexagon Transportation Consultants Inc. 2021

As shown in Table 30 and Table 31, the total project trips for the proposed project were estimated to be approximately 9,857 vehicles, while approved project trips were estimated to be approximately 12,048 vehicles (Hexagon Transportation Consultants, Inc. 2021). Trips are reduced for each roadway segment except for a minor increase on the U.S. 101 Northbound Ramps. This would lead to a net reduction of trips for the proposed project than what was in the approved project. The project would not make substantial alterations to roadway alignments⁹ or substantially change the vehicle classifications mix on local roadways. Therefore, the proposed project would not result in impacts beyond those identified in the approved 2005 EIR, which identified temporary significant and unavoidable impacts due to two single-family residential units existing on the southeast corner of the project site. The 2005 EIR did not find significant impacts to other sensitive receivers from traffic noise increases. These units have since been demolished onsite, and these sensitive receivers no longer exist, and the project would therefore not result in significant impacts to these receivers or any receivers from an increase in traffic noise. Offsite traffic would not create a new or substantially increased noise impact compared to those identified in the 2005 EIR and impacts would be less than significant. Further analysis in the Subsequent EIR is not warranted and this will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

The greatest anticipated source of vibration during general project construction activities would be from a large dozer, which would be used during site preparation and grading activities and may be used in 55 feet of the nearby residential buildings along Mission View Drive. A dozer would create approximately 0.089 in./sec. PPV at 25 feet (Caltrans 2020). This would equal a vibration level of 0.037 in./sec. PPV at a distance of 55 feet.¹⁰ This would be lower than what is considered a distinctly perceptible impact for humans of 0.24 in./sec. PPV, and the structural damage impact to residential

⁹ The project would include the addition of a dedicated left turn lane and right turn lane on Tokay Avenue for movements in and out of the community; other than restriping lanes for the dedicated turn lanes, the project would not alter Tokay Avenue (e.g., no roadway widening required).

¹⁰ $PPV_{Equipment} = PPV_{Ref} (50/D)^n$ (in/sec), PPV_{Ref} = reference PPV at 50 feet, D = distance, and $n = 1.1$

structures of 0.4 in./sec. PPV. Therefore, temporary vibration impacts associated with the dozer (and other potential equipment) would be less than significant.

The project does not include substantial vibration sources associated with operation. Therefore, operational vibration impacts would be less than significant. Although groundborne vibration was not analyzed in the 2005, the proposed project would not introduce new or substantially severe impacts. Further analysis in the Subsequent EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

- c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

As discussed in Item 9, *Hazards and Hazardous Materials*, the nearest airport to the project site is the San Martin Airport, which is located approximately 6 miles south of the project site. The project site is outside of the area of the land use plan for the airport (Santa Clara County 2006). There are no private airstrips near the project site. Because there are no airports or airstrips near the project site, the project would not result in the exposure of people to excessive noise levels from aircraft. No impact would occur. Although airport noise was not analyzed in the 2005, the proposed project would not introduce new or substantially more severe impacts than what was analyzed in the 2005 EIR. Further analysis in the Subsequent EIR is not warranted.

NO IMPACT

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14 Population and Housing

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	N/A	No	No	No	N/A
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	N/A	No	No	No	N/A

2005 EIR Summary

Impacts to Population and Housing were analyzed in Section 6 of the 2005 EIR. The EIR concluded that the proposed project would not result in significant impacts to population and housing. Population and housing impacts identified in the 2005 EIR are summarized as follows.

The EIR stated that the proposed project would involve demolition of three residential homes, with the existing residents being readily absorbed into the existing housing stock of Morgan Hill. The 2005 EIR also stated that the project as proposed was estimated to employ more than 945 people. Should employees relocate to Morgan Hill for job openings that occur as a result of the project, the EIR determined that the possible influx of people would be restricted by the growth management policies of Morgan Hill. The 2005 EIR concluded that the proposed project would have a less-than-significant impact on population and housing.

Impact Analysis

- a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The 2035 General Plan EIR conservatively estimated the City's population would increase to approximately 68,057 by 2035. The General Plan EIR determined that the projected level of growth under the 2035 General Plan would exceed regional projections but concluded that policies from the proposed General Plan would serve to provide a planning framework for this growth.

The proposed project would result in the development of 498 dwelling units, 140 hotel rooms, and 135,000 square feet of retail space. Assuming that household size of the proposed project would generally reflect that of the California Department of Finance's (DOF) estimated 3.08 persons per household for the City of Morgan Hill, the proposed project would introduce an approximate population of 1,534 persons. The addition of retail space would also introduce new jobs which could result in an addition of residents to the City, but due to the nature of these jobs most would likely be filled by people already residing in the City or region.

The current Morgan Hill population is estimated to be 47,374 (DOF 2021). ABAG projects that the population of Morgan Hill will increase to 50,165, an additional 2,791 people, by 2040. The addition of the proposed project's estimated 1,534 persons and the incremental contribution of new jobs to the City would be in the ABAG forecast and the General Plan's growth projection. Therefore, implementation of the proposed project and the additional population would be in population projections for the City and would not result in substantial cumulative impacts due to population growth. The proposed project would not induce substantial unplanned growth directly or indirectly. Impacts would be less than significant. Further analysis is not warranted. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

There are currently no residences on the project site. Therefore, the project would not displace existing people or housing. No impact would occur. Further analysis is not warranted. This topic will not be discussed in the Subsequent EIR.

NO IMPACT

15 Public Services

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. Fire protection?	EIR Pages 3.11-6 through 3.11-7	No	No	No	N/A
b. Police protection?	EIR Pages 3.11-5 through 3.11-6	No	No	No	Yes
c. Schools?	EIR Page 3.11-7	No	No	No	N/A
d. Parks?	EIR Pages 3.11-7 though 3.11-8	No	No	No	N/A
e. Other public facilities?	N/A	No	No	No	N/A

2005 EIR Summary

Impacts to Public Services were analyzed in Section 3.11 of the 2005 EIR. The EIR concluded that the original project would not result in significant impacts to Public Services.

Public Services impacts identified in the 2005 EIR are summarized as follows.

Police Protection

The 2005 EIR found that the proposed project would not result in the need for new or physically altered governmental facilities but would increase service demands for police patrol and incident response. The proposed project would be required to conform to the applicable provisions of the City's building security ordinance found in Chapter 15.40 of the 2005 Morgan Hill Municipal Code. This ordinance mandates the incorporation of security features into building design and related site improvements to reduce crime. Implementation of this ordinance would be supplemented with Police Department review of development projects by staff trained in Crime Prevention Through

Environmental Design strategies. The proposed project would result in an increased demand for service due to the type of uses, late hours of operation, and proximity to U.S. 101. However, while an increase in demand upon police services can be expected, the level of increase is difficult to predict until a precise tenant mix is determined. Determinant factors include hours of operation (particularly after dark), type of merchandise, targeted consumer (e.g., teenagers vs. retirees), and whether the restaurants would serve alcohol and/or contain dedicated bars. Police service times could be expected to increase service demand. The project applicant would be subject to development impact fees for public safety facilities, equipment, and training collected by the City of Morgan Hill (Section 3.56.030 of the 2005 City of Morgan Hill Municipal Code). Payment of standard development impact fees would provide funds for the maintenance of acquisition of equipment such as patrol cars. The 2005 EIR found that with implementation of mitigation, this impact would be less than significant.

Fire Protection

The 2005 EIR found that the proposed project would increase the demand for fire protection. However, the proposed project would not result in the need for new or physically altered governmental facilities. The Morgan Hill Fire Department would provide fire protection service to the project site. The proposed project would have to meet all state and local codes for providing adequate fire flows, fire sprinklers, emergency vehicle access, and other fire prevention requirements. The project applicant would also be subject to development impact fees for public safety facilities, equipment, and training collected by the City of Morgan Hill (Section 3.56.030 of the 2005 City of Morgan Hill Municipal Code). Impacts were found to be less than significant.

Schools

The 2005 EIR found that the proposed project would generate employment opportunities which may attract additional residents with school-age children to Morgan Hill. The 2005 EIR analyzed that, due to the Residential Development Control System in place through 2020, City growth management policies that limit the number of dwelling units in the city would ensure that the additional population facilitated by the project would not exceed capacity of local schools. Further, the project applicant would be required to pay school development impact fees to Morgan Hill Unified School District. Impacts were found to be less than significant.

Table 32 lists the 2005 EIR's mitigation measures related to public services.

Table 32 2005 EIR Mitigation Measures: Public Services

Mitigation Measure	Description
Mitigation 3.11-1	Subject to review and approval by the City of Morgan Hill Police Department, the project applicant shall install and maintain a video surveillance system throughout the proposed project and shall maintain onsite security personnel during all hours of operation.
Source: City of Morgan Hill 2005	

Impact Analysis

- a.1. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?*
- a.2. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?*

The Morgan Hill Police Department (MHPD) determined that the existing facilities are adequate to meet long-term needs (City of Morgan Hill 2005, Ramirez 2022, Good 2022). The proposed project is located in an urbanized area already served by the MHPD and is generally similar to the surrounding uses and would not substantially increase demand on local police or fire protection services. While the project could result in a need for additional MHPD personnel, existing and planned facilities would accommodate an increase in personnel (Ramirez 2022, Good 2022). The project is located approximately 1.3 miles northeast of the El Toro Fire Station, 3 miles north of the Dunne Hill Fire Station, and 2.7 miles north of the MHPD. The project would be reviewed by the MHPD for compliance with safety regulations. In addition, the project would be subject to applicable development impact fees to offset potential increases in demand. The proposed project would be required to implement Mitigation Measure 3.11-1 from the 2005 EIR to reduce impacts to less-than-significant levels. This impact would be less than significant and would not be greater than that analyzed in the 2005 EIR. There would be no new or substantially more severe impacts than what was analyzed in the 2005 EIR. Further analysis is not warranted.

The proposed project would introduce new development and population in the same location considered by the 2005 EIR. The impact would therefore be the same as for the previous project, and this issue was addressed adequately in the 2005 EIR.

ADDRESSED IN PRIOR EIR

LESS THAN SIGNIFICANT IMPACT

- a.3. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?*

The 2005 EIR did not explicitly address the impacts of additional dwelling units and the increase in population of school aged children as a result of project implementation. The addition of multifamily dwelling units on the project site would result in an increase in school-aged children that would attend schools in the Morgan Hill Unified School District. The 2005 EIR anticipated growth in Morgan Hill based up on the Residential Development Control System, which included City growth management policies that limit the number of dwelling units in the city. Senate Bill 330 (SB 330) established the “Housing Crisis Act of 2019,” effective January 1, 2020, suspending the City’s Residential Development Control System which was a housing development pacing tool the City utilized for nearly 40 years prior to the new legislation. Accordingly, growth in the City of Morgan

Hill is increased compared to growth anticipated under the 2005 EIR. However, the project applicant would be required to pay school fees at the time of building permit to reduce impacts as a result of the proposed project. Pursuant to Section 65995 (3)(h) of the California Government Code (SB 50, chaptered August 27, 1998), the payment of statutory fees “is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization.” Thus, payment of the development fees is considered full mitigation for the proposed project’s impacts related to schools under CEQA and impacts would be less than significant. While the project would increase school-aged children in Morgan Hill, the project would have a less-than-significant impact that would not be greater than that analyzed in the 2005 EIR. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Please refer to Section 16, *Recreation*.

LESS THAN SIGNIFICANT IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The 2005 EIR did not explicitly address the impacts of the proposed project on other public facilities such as libraries. As of the end of 2020, the Morgan Hill Library finished a 10,600-square-foot expansion which would accommodate new residents of Morgan Hill. The proposed project does not include and would not require new or physically altered governmental facilities (Ramirez 2022, Good 2022). The project’s new residents would generate additional demand for library services, but the project’s growth is in the population forecasts in ABAG projections. While the project would result in an increase in the population of Morgan Hill and the population that the Morgan Hill Library would serve, the project would have a less-than-significant impact that would not be greater than that analyzed in the 2005 EIR. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

16 Recreation

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	EIR Pages 3.11-7 through 3.11-8	No	No	No	N/A
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	EIR Pages 3.11-7 through 3.11-8	No	No	No	N/A

2005 EIR Summary

Impacts to Recreation were analyzed in Section 3.11 of the 2005 EIR. The EIR concluded that the proposed project would not result in significant impacts to recreation.

Recreation impacts identified in the 2005 EIR are summarized as follows.

The 2005 EIR found that the proposed project would not conflict with an established recreational land use in the area nor inhibit the future provision of recreational opportunities. While the proposed project would generate employment opportunities that may attract a limited number of new residents and with them incremental demand for recreational opportunities, this would be a less-than-significant impact.

Impact Analysis

- a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*
- b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The 2005 EIR analysis relied on growth management policies which would limit the number of annual building permits for dwelling units through the Residential Development Control System (RDCS). California Senate Bill 330 (SB 330) established the “Housing Crisis Act of 2019”, effective January 1, 2020, making changes to the local approval process – this law supersedes City requirements, and suspends the City’s Residential Development Control System (RDCS) which was a housing development pacing tool the City utilized for nearly 40 years prior to the new legislation.

The proposed project would introduce new dwelling units to the City. As stated in Section 14, *Population and Housing*, the proposed project would introduce an approximate population of 1,534 persons. This increase in population would result in a proportionate increase in demand for recreational facilities. The project’s residential and commercial development would impact the parkland ratio in the City. The project includes a courtyard with outdoor open space near the proposed apartment units, a clubhouse, recreation hall, and swimming pool for the use of new residents. These amenities would reduce the demand for offsite recreational facilities generated by new residents. Additionally, the project applicant would be required to pay park impact fees for the development of additional offsite park facilities. While the project would result in an increase in the population of Morgan Hill and the population that parks and recreational facilities serve, impacts to parks and recreational facilities would be less than significant and would not be greater than those analyzed previously. This topic will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

17 Transportation

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
Would the project:					
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	EIR Pages 3-.12-12 through 3.12-19, 3.12-22 through 3.12-23	Yes	Yes	Yes	No
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	N/A	Yes	Yes	Yes	N/A
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	EIR Pages 3.12-20 through 3.12-21, 3.12-27	Yes	No	No	No
d. Result in inadequate emergency access?	N/A	No	No	No	N/A

2005 EIR Summary

Impacts to Transportation and Circulation were analyzed in Section 3.12 of the 2005 EIR. The section analyzes the project's impacts on traffic in terms of level of service (LOS), site access, onsite circulation, public transit facilities, pedestrian facilities, bicycle facilities, and parking availability. The 2005 EIR did not address the issue areas of consistency with *CEQA Guidelines* Section 15064.3, subdivision (b) or the adequacy of emergency access.

Transportation and circulation impacts identified in the 2005 EIR are summarized as follows.

Intersection Level of Service Impacts

Roadway Intersections

The 2005 EIR found that the project would generate 22,009 net-new daily trips, 533 net-new AM Peak Hour trips, 1,869 net-new PM Peak Hour trips, and 2,415 net-new Saturday midday peak hour trips. These new additional trips would cause the unsignalized intersection of Cochrane Road/Mission View Drive to operate at unacceptable LOS during peak hours, and the project would exacerbate unacceptable operations at the Dunne Avenue/Monterey Road intersection during PM Peak Hour. This would be a significant impact. However, implementation of the roadway geometry and required traffic signal described in Mitigation Measures 3.12-1a and 3.12-1b would reduce impacts to less than significant.

Freeways

The 2005 EIR found that the proposed project would generate new trips on US 101 that would exacerbate current unacceptable LOS. The segment of US 101 between Tennant Avenue and Dunne Avenue operates at an adequate LOS, and the project would add a volume greater than one percent of the capacity to this segment. Therefore, the project would have a significant impact and Mitigation Measure 3.12-2 would be required. However, even with implementation of Mitigation Measure 3.12-2, the project traffic contribution would not be reduced, and impacts would be significant and unavoidable.

Site Access

The 2005 EIR found that impacts related to site access would be less than significant with implementation of Mitigation Measures 3.12-3 and 3.12-4. Mitigation Measure 3.12-3 would eliminate two driveways to reduce vehicle conflicts with pedestrians, and Mitigation Measure 3.12-4 would designate the southernmost driveway to be a right-turn, in-and-out-only driveway to avoid potential vehicle conflicts.

Onsite Circulation

The 2005 EIR found that to improve onsite circulation the project would need to implement Mitigation Measures 3.12-5 and 3.12-6. Impacts would be reduced to less than significant. Mitigation Measure 3.12-5 would reduce speeds on De Paul Drive by developing project design features that would discourage speeding. Mitigation Measure 3.12-6 would relocate the designated loading zone to avoid a driving hazard at a nearby onsite intersection.

Public Transit, Pedestrian, and Bicycle Facilities

Public Transit Facilities

As described in the 2005 EIR, the existing bus stop on Mission View Drive south of Cochrane would not be able to properly accommodate transit riders generated by the project. To reduce the potentially significant impact, Mitigation Measure 3.12-7 would require that the project construct a new stop along the project frontage with transit amenities. The impact would be less than significant.

Pedestrian Facilities

The 2005 EIR found that the project would construct a continuous sidewalk along the project frontage but there would be no pedestrian crossings at the major intersections adjacent to the project. Impacts would be potentially significant but with Mitigation Measure 3.12-8 a pedestrian crosswalk would be provided at the major intersections. The impact would be less than significant.

Bicycle Facilities

The 2005 EIR found that the project would create a demand for bicycle facilities and no bicycle facilities were part of the preliminary project site plans. This would be a potentially significant impact. However, implementation of Mitigation Measure 3.12-9 would require that the project incorporate bicycle facilities into the project design.

Parking

The 2005 EIR found that the project would not provide sufficient parking supply to meet the demand generated by the proposed land uses. Mitigation Measure 3.12-10 would be required to ensure that the overall number of parking spaces is included in the project design to reduce impacts to less than significant.

Table 33 lists the 2005 EIR's mitigation measures related to transportation and circulation. Pursuant to Public Resource Code, Section 21099 (b)(2), traffic congestion, while potentially an inconvenience to drivers, is not itself an environmental impact. Therefore, issues related to traffic congestion are currently outside the scope of CEQA analysis. This list also excludes mitigation measures relevant to cumulative development, because the 2005 EIR's cumulative setting consists of approved projects when the project was proposed. This historic cumulative setting does not apply to the proposed project.

Table 33 2005 EIR Mitigation Measures: Transportation and Traffic

Mitigation Measure	Description
Impact 3.12-1 Intersection Level of Service Impacts	
Mitigation Measure 3.12-1a	At the Dunne Avenue/Monterey Road intersection, the westbound right-turn lane shall be restriped as a shared through/right-turn lane, and a northbound right-turn overlap phase shall be installed. This improvement would be required when 35 percent of the project has been constructed based on total PM Peak hour trip generation
Mitigation Measure 3.12-1b	<p>At the Cochrane Road/Mission View Drive intersections, a traffic signal shall be installed with protected left-turn phasing on all approaches. In addition, this intersection shall be reconfigured to include the following geometry:</p> <ul style="list-style-type: none"> ▪ The northbound approach should include one left-turn lane and one shared through/right-turn lane. ▪ The westbound approach should include one left-turn lane, one through lane, and one shared through/right-turn lane. ▪ The southbound approach should include one left-turn, one shared through/right-turn lane, and one right-turn lane. ▪ The eastbound approach should include one left-turn lane, one through lane, and one right-turn lane.

Mitigation Measure	Description
Impact 3.12-2 Freeway Level of Service Impacts	
Mitigation Measure 3.12-2	<p>The project shall implement the applicable actions listed in the <i>Immediate Implementation Action List</i> contained in the <i>Deficiency Plan Guidelines</i> of the County's Congestion Management Program, which are intended to encourage the use of non-automobile transportation modes and to help maximize the efficiency of the existing transportation system.</p> <p>The <i>Immediate Implementation Action List</i> comprises a general listing of the types of the measures which can be implemented by project sponsors and/or lead agencies. The listed actions which can be implemented at the project-specific level include improvements to the bicycle and pedestrian facilities, improvements to the public transit facilities, and such information programs to encourage Transportation Demand Management measures such as carpooling. (The full list is contained in Appendix H of the traffic report which is contained in Appendix K of this EIR.) The proposed project would implement several of these action items, either as part of the proposed project or as mitigation measures (for transportation and/or air quality impacts) identified elsewhere in this EIR. These actions include:</p> <ul style="list-style-type: none"> ▪ Pedestrian circulation system improvements, including sidewalks along project frontages, crosswalks at adjacent intersections and project driveways, internal project sidewalks, and marked pedestrian paths providing internal pedestrian circulation ▪ Bicycle system improvements, including dedication of right-of-way for Class II bike lane along project street frontages and installation of onsite bicycle storage facilities ▪ Transit improvements, such as provision of a transit stop on project Cochrane Road frontage and posting of transit schedule and fare information on project employer' bulletin boards
Impact 3.12-3 Site Access	
Mitigation Measure 3.12-3	<p>The two driveways shown directly behind the movie theater complex on Mission View Drive (i.e., the second and third driveways north of the Cochrane Road intersection) should be eliminated from the proposed project, and a circulation aisle should be provided behind the movie theater complex</p>
Impact 3.12-4 Site Access	
Mitigation Measure 3.12-4	<p>The southernmost project driveway should be designated as a right-turn, in-and-out-only driveway (i.e., signs should be posted prohibiting left-turn movements into or out of the project site at this driveway).</p>
Impact 3.12-5 Onsite Circulation	
Mitigation Measure 3.12-5	<p>The following modifications are identified on the main north-south circulation aisle to discourage speeding and provide more visible crosswalks for pedestrians:</p> <ol style="list-style-type: none"> a) At the first intersection north of Cochrane (i.e., between Shops K and Pad 7 and between Shops B and Pad 2), stop signs should be installed on the side-street approaches b) At the second intersection north of Cochrane, provide one of the following alternative configurations: <ol style="list-style-type: none"> i) Provide raised intersection to provide vertical displacement and provide stop signs on the side street approaches ii) Provide stop signs on all four approaches c) At the third intersection north of Cochrane, provide stops signs on all four approaches
Impact 3.12-6 Onsite Circulation	
Mitigation Measure 3.12-6	<p>The designated loading zone shall be relocated far enough to the east to allow the intersection approach lane to be reduced to one lane.</p>
Impact 3.12-7 Public Transit Facilities	
Mitigation Measure 3.12-7	<p>The project applicant shall construct a new bus stop along the project frontage, including transit amenities such as a bus turnout, a shelter, and benches</p>

Mitigation Measure	Description
Impact 3.12-8 Pedestrian Facilities	
Mitigation Measure 3.12-8	Pedestrian crosswalks shall be provided on all four legs of the Cochrane Road/De Paul Drive intersection.
Impact 3.12-9 Bicycle Facilities	
Mitigation Measure 3.12-9	<p>The following bicycle facilities shall be incorporated into the project:</p> <ul style="list-style-type: none"> a) Bicycle racks and/or lockers to accommodate bicycle travel by customers and employees. Bicycle parking facilities should be located in high-visibility areas in order to encourage bicycle travel and discourage theft and vandalism. b) Class II bicycle lanes along the project street frontages
Impact 3.12-10 Parking	
Mitigation Measure 3.12-10	<p>The overall number of parking spaces included in the project shall be required to meet the aggregate parking demand of the various land uses proposed within the project, to be determined as follows:</p> <p>At the time of the subsequent discretionary approval (e.g., use permit, design review) for each individual restaurant pad or space, the parking supply provided for each such pad or space shall meet the peak parking demand for the specific type of restaurant proposed (e.g., sit down, fast-food), as determined through either the applicable City code parking requirement, or through applications of the ITE shared parking rates for 1:00 p.m. on a weekend day (plus 10 percent). After the center is 75 percent built out on the basis of floor area (assuming the cinemas have been completed), the calculation of parking requirements for new restaurant uses may be adjusted based on the results of physical parking surveys conducted at the center by a qualified transportation consultant during the peak usage period. (If the cinemas have not been completed upon 75 percent project completion, then the buildout threshold for such calculations shall be 85 percent of project buildout.) As a guide to the approximate maximum floor area of restaurant that can be constructed without resulting in a parking deficiency for the project, the maximum floor area can range from 25,000 square feet (assuming 100 percent sit-down restaurant) to 41,000 square feet (assuming 100 percent fast-food restaurant), although the actual maximum will fall between these numbers if the project ultimately includes a mix of the two restaurant types. (These maximum figures assume floor areas for all other project uses will remain as proposed on the May 2, 2005 project site plan.)</p>

Source: City of Morgan Hill 2005

Impact Analysis

- a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

The project would construct land uses that were not analyzed in the 2005 EIR, including residences and a hotel and a reduction in overall commercial square footage, which would affect circulation. Therefore, the project would have a potentially significant impact related to conflicts with programs, plans, ordinances, and policies addressing the circulation system. This issue will be analyzed further in the Subsequent EIR.

POTENTIALLY SIGNIFICANT IMPACT

- b. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

CEQA Guidelines Section 15064.3 requires an analysis of a project's effect on VMT. The 2005 EIR was certified before the adoption of statewide VMT standards pursuant to SB 743, and before the CEQA Guidelines was amended to incorporate the issue of VMT. This represents a change in the circumstances under which the 2005 EIR was prepared, requiring further analysis. Therefore, the project would have a potentially significant impact related to consistency with VMT standards. This issue will be analyzed further in the Subsequent EIR.

POTENTIALLY SIGNIFICANT IMPACT

- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*
- d. *Would the project result in inadequate emergency access?*

The proposed layout of the project would differ substantially from the site layout analyzed in the 2005 EIR, which could potentially result in new hazards due to geometric design features (e.g., pedestrian crossings of dangerous intersections) and effects on emergency access. These impacts would be potentially significant and will be analyzed further in the Subsequent EIR.

POTENTIALLY SIGNIFICANT IMPACT

18 Tribal Cultural Resources

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	N/A	No	Yes	No	N/A
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?	N/A	No	Yes	No	N/A

2005 EIR Summary

The 2005 EIR did not address the issue area of tribal cultural resources.

Impact Analysis

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?*

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” that are:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. Determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

As the Notice of Preparation for the EIR for this project was published before July 1, 2015, AB 52 consultation is not required, and changes under this addendum do not result in a need for AB 52 consultation. No cultural resources of Native American origin were identified onsite, and Section 5, *Cultural Resources*, of the 2005 EIR analyzed the potential for possible disturbance of previously unidentified resources and includes mitigation to reduce these impacts to a less-than-significant level. Mitigation Measures 3.5-1a and 3.5-1b address impacts to cultural resources, including those of Native American origin. If cultural resources of Native American origin are identified, relevant portions of AB 52 would apply.

California Government Code Section 65352.3 (adopted pursuant to the requirements of Senate Bill [SB] 18) requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan. The tribal organizations eligible to consult have traditional lands in a local government’s jurisdiction, and are identified,

upon request, by the Native American Heritage Commission (NAHC). As noted in the California Office of Planning and Research's Tribal Consultation Guidelines (2005); "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places." SB 18 refers to PRC Section 5097.9 and 5097.995 to define cultural places as:

Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (PRC Section 5097.9) and Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historical Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (PRC Section 5097.995).

On March 15, 2022, the City sent AB 52/SB 18 letters to five Native American Tribes identified on the NAHC list received in December 2019 (Ohlone Indian Tribe, Muwekma Ohlone Indian Tribe of SF Bar Area, Indian Canyon Mutsun Band of Costanoan, Amah Mutsun Tribal Band of San Juan Bautista and Amah Mutsun Tribal Band) as well as one additional tribe (Tamien Nation). The City received one response as a result from the Tamien Nation who requested a meeting with the City. The City held a meeting with the Tamien Nation on May 17, 2022, during which the Tribal Chairperson expressed concern regarding Tribal cultural resources sensitivity but did not identify any specific Tribal cultural resources near the project site.

Though no specific Tribal cultural resources were identified, there is always potential to uncover buried tribal cultural resources during ground disturbing activities, such as the excavation and grading that would be required for project construction. Should project construction activities encounter and damage or destroy a tribal cultural resource or resources, impacts would be potentially significant. However, the following mitigation measure, which was agreed upon by the Tamien Nation during consultation with the City, would ensure that potential impacts to tribal cultural resources would be less than significant.

Mitigation Measures

Mitigation Measure TCR-1: Inadvertent Discovery

Significant historic or archaeological materials: A moderate potential exists for unrecorded historic-period archaeological resources to be within the project area. The developer shall enter into written contracts with an archaeologist and the Tamien Nation Tribe, and pay all fees associated with the activities required by this condition. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply:

1. Prior to start of grading or earthmoving activity on the "first day of construction", the archeologist and Tamien Nation Tribal Monitor shall hold a pre-construction meeting for the purposes of "cultural sensitivity training" with the general contractor and subcontractors.
2. A Tamien Nation Tribal Monitor shall be present on-site to monitor all ground-disturbing activities and an archaeologist shall be on-call. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below:
 - a. Work at the location of the find shall halt immediately within fifty feet of the find. If an archaeologist is not present at the time of the discovery, the applicant shall contact an archaeologist for evaluation of the find to determine whether it qualifies as a unique archaeological resource as defined by this chapter;

- b. If the find is determined not to be a Unique Archaeological Resource, construction can continue. The archaeologist shall prepare a brief informal memo/letter in collaboration with a tribal representative that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find;
 - c. If the find appears significant and to qualify as a unique archaeological resource, the archaeologist shall determine if the resource can be avoided and shall detail avoidance procedures in a formal memo/letter; and
 - d. If the resource cannot be avoided, the archaeologist in collaboration with a tribal representative shall develop within forty-eight hours an action plan to avoid or minimize impacts. The field crew shall not proceed until the action plan is approved by the Development Services Director. The action plan shall be in conformance with California Public Resources Code 21083.2. An archaeologist shall be on-call during ground disturbing activities. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below:
3. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply. If human remains are discovered, it is probable they are the remains of Native Americans.
 - a. If human remains are encountered, they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need to know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.
 - b. Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.
 - c. Surgical masks should also be worn to prevent exposure to pathogens that may be associated with the remains.
4. In the event that known or suspected Native American remains are encountered, or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow points, ground stone mortars and pestles), culturally altered ash stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials and historic structure remains such as stone lined building foundations, wells or privy pits. Ground-disturbing project activities may continue in other areas that are outside the exclusion zone as defined below.
5. An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the contractor foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time of discovery, by the monitoring archaeologist and tribal representative (typically twenty-five to fifty feet for single burial or archaeological find).
6. The discovery locale shall be secured (e.g., 24-hour surveillance) as directed by the City or County if considered prudent to avoid further disturbances.

7. The contractor foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:
 - The City of Morgan Hill Development Services Director (408) 779-7247
 - The Contractor's Point(s) of Contact
 - The Coroner of the County of Santa Clara (if human remains found) (408) 793-1900
 - The Native American Heritage Commission (NAHC) in Sacramento (916) 653-4082
 - The Amah Mutsun Tribal Band (916) 481-5785 (H) or (916) 743-5833 (C)
 - The Tamien Nation (707)295-4011 (office) and (925)336-5359 (THPO)
8. The Coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American the Coroner has 24 hours to notify the NAHC.
9. The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD). (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.)
10. Within 24 hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose.
11. Within 24 hours of their notification by the NAHC, the MLD may recommend to the City's Development Services Director the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the appropriate tribe may be considered and carried out.
12. If the MLD recommendation is rejected by the City of Morgan Hill the parties will attempt to mediate the disagreement with the NAHC. If mediation fails, then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Significance After Mitigation

mitigation Measure TCR-1 would avoid and appropriately minimize potential project impacts to tribal cultural resources. Impacts would be less than significant.

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19 Utilities and Service Systems

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

- | | | | | | |
|--|----------------------------------|----|----|----|-----|
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | EIR Page 3.13-7 | No | No | No | N/A |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | EIR Pages 3.13-7 through 3.13-9 | No | No | No | N/A |
| c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to | EIR Pages 3.13-9 through 3.13-10 | No | No | No | N/A |

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
the provider's existing commitments?					
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	EIR Pages 3.13-6 through 3.13-7	No	No	No	Yes
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	EIR Pages 3.13-6 through 3.13-7	No	No	No	Yes

2005 EIR Summary

Impacts to Utilities and Service Systems were analyzed in Section 3.13 of the 2005 EIR. The EIR concluded that the proposed project would not result in significant impacts to utilities and service systems.

Utilities and service systems impacts identified in the 2005 EIR are summarized as follows.

Potable Water

The 2005 EIR found that the proposed project would increase the demand for potable water. However, the existing water system would be able to adequately supply the project, and the increase would not be substantial in relation to the existing conditions. The proposed project includes water service infrastructure improvements. The four onsite wells currently servicing the property will be capped and replaced with 12-inch water lines extending westward from existing 10- and 12-inch water lines located beneath Cochrane Road. Additionally, fire hydrants will be provided in locations to be approved by the fire department. All work will be done by the applicant to City standards and in conformance with the City of Morgan Hill Water System Master Plan. Pursuant to Chapter 3.44 and 3.56 of the 2005 City of Morgan Hill Municipal Code, water impact fees will also be assessed for the cost of infrastructure necessary to service the proposed project. Impacts to water supply would be less than significant.

Wastewater

The 2005 EIR found that the proposed project would require onsite expansion and relocation of existing infrastructure, in addition to an increase in the amount of wastewater entering the sewer system. Neither the expansion, nor the increased flow, are substantial relative to current conditions and capacities. The proposed project would be required to comply with City standards for wastewater infrastructure and would also be required to comply with the City of Morgan Hill Sewer System Master Plan. In addition, Pursuant to Chapter 3.44 and 3.56 of the 2005 Morgan Hill Municipal Code, sewer impact fees would also be assessed to cover the cost of infrastructure necessary to service the proposed project. Impacts would be less than significant.

Solid Waste

The 2005 EIR found that the project as originally proposed would generate between 0.8 and 8.3 tons of solid waste per day. The waste management provider responsible for the project has sufficient capacity to accommodate the waste in the Pacheco Pass Landfill in Morgan Hill, Kirby Creek Landfill in Milpitas, or BFI Landfill in San Jose. Without sufficient waste diversion practices, however, the project may result in noncompliance with the California Integrated Waste Management Act of 1989. Implementation of 2005 EIR Mitigation Measure 3.13-1 would reduce this impact to a less-than-significant level.

Electric, Natural Gas, Telephone, and Cable Services

The 2005 EIR found that the project as originally proposed would increase the demand for electric, natural gas, telephone, and cable services. The 2005 EIR would require the project to obtain a “will-serve” letter from PG&E and SBC Communications, or equivalent providers, prior to Final Map approval and/or issuance of building permits to reduce this impact to a less-than-significant level.

Table 34 shows the 2005 EIR mitigation measures related to utilities and service systems.

Table 34 2005 EIR Mitigation Measures: Utilities and Service Systems

Mitigation Measure	Description
Mitigation 3.13-1	Subject to review and approval by the City of Morgan Hill, the project applicant shall locate and maintain recycling receptacles for corrugated cardboard, mixed paper, food and beverage containers, and landscaping waste. Such receptacles shall be located adjacent to the garbage dumpsters serving the businesses or maintenance personnel generating such waste. Contracts for the collection of these recyclables shall also be maintained as available.

Source: City of Morgan Hill 2005

Impact Analysis

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*
- b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*
- c. *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Water

The City of Morgan Hill owns, operates, and maintains its own municipal water system, which consists of, among other facilities, 16 active groundwater wells and distribution mains to convey water throughout the incorporated city and its greater urban growth boundary area. The City's water supply is sourced entirely from locally groundwater supplies, which the City pumps from the underlying Santa Clara Subbasin of the Santa Clara Valley Groundwater Basin, and the adjacent Llagas Subbasin of the Gilroy-Hollister Valley Groundwater Basin. Valley Water is the DWR-approved exclusive Groundwater Sustainability Agency for both subbasins. Valley Water is a wholesale water agency that imports surface water supplies from both the State Water Project and the Central Valley Project and uses part of these imported supplies to replenish the local ground water basins, including the Santa Clara and Llagas subbasins, to maintain sustainable groundwater supply conditions.

As shown in Table 35, the project would result in a net increase in demand for water of approximately 129 acre-feet per year. This supply would be produced by the City of Morgan Hill from the local groundwater basins, consistent with the City's current water supply scenario. The local groundwater basins are sustainably managed by Valley Water and the City, along with other users of the groundwater. This is documented in the WSA, which is provided as Appendix WSA, and is informed by multiple long-range water supply planning and groundwater-management documents, including:

- City of Morgan Hill 2020 Urban Water Management Plan
- Valley Water 2020 Urban Water Management Plan
- City of Morgan Hill 2021 Water System Management Plan
- Valley Water 2019 Annual Groundwater Report
- Valley Water 2020 Water Shortage Contingency Plan

The WSA provided as Appendix WSA determines that there is sufficient water supply available to meet the project's projected demands reliably over a 20-year projection and with consideration to varying climatic (drought) conditions. Therefore, because there is adequate water supply available to serve the project, no additional impacts beyond those identified in the 2005 EIR would occur.

Table 35 Estimated Water Demand (Net Increase from 2005 EIR)

Water Demand Type	Size	Water Use Factor ¹ (Annual)	Water Demand (AFY)
Residential	498 units	106,229 gal/unit	162
Retail	135,000 sf	119 gal/sf	49
Hotel Rooms	140 units	28,186 gal/unit	12
Total Operational Demand²			223
Previously Assessed Retail ³	-259,690 sf	119 gal/ sf	-95
Total New Water Demand			129

AFY = acre-feet per year; gal/sf = gallons per square foot; sf = square foot

¹ CalEEMod provided the water use factors used to calculate water demands

² This total demand assumes the project is fully operational during the first year; this is an over-estimation of the project's operational water demands in the first few years, because the project would actually be constructed over an approximately 3-year period, with water demands correlating with when individual land uses are brought online. For example, water demands for residential would equate to 34 acre-feet at the end of the first year for the first 104 units, while residential demands would reach 162 acre-feet by the end of the second year for the next 394 units, reaching the design total of 498 new residential units, with an associated water demand of 162 AFY.

³ "Previously assessed retail" refers to those portions of the approved Cochrane Commons Project consisting of Phase II as assessed in the 2005 EIR, that were never constructed and are not included in the proposed project as assessed herein, although the associated water demands are accounted for in City planning documents including the General Plan and UWMP.

Wastewater

The City is served by the South County Regional Wastewater Authority (SCRWA). SCRWA's WWTP has a permitted capacity of 8.5 million gallons per day (MGD), average wastewater inflow of 6.2 MGD, and plans to expand the WWTP capacity to 11 MGD (SCRWA 2020). As shown in Table 36, the project would result in a net increase in demand for wastewater treatment services of approximately 0.062 MGD. This represents approximately 2.7 percent of the SCRWA WWTP's current remaining capacity, and 1.3 percent of the SCRWA WWTP's remaining capacity following the planned WWTP upgrade. Because there is adequate wastewater service available to serve the project, no additional impacts beyond those identified in the 2005 EIR would occur.

Table 36 Estimated Wastewater Generation (Net Increase from 2005 EIR)

Land Use	Size	Generation Rate ¹	Total (gallons/year)	Total (gallons/day)
Residential	+498 units	88,524 gallons/unit/year	+44,085,000	+120,780
Hotel	+140 rooms	23,488 gallons/room/year	+3,288,000	+9,008
Retail	-259,690 sf	99.2 gallons/sf/year	-24,761,000	-67,838
Total			+22,613,000	+61,950

Notes: sf = square feet

¹ Waste demand estimated as 120 percent of wastewater generation due to system losses.

Totals may not add due to rounding.

Additionally, as described in SCRWA's Urban Water Management Plan, SCRWA has adequate available water supply to serve its customers during average, single dry, and multiple dry years, with surplus water supply available during all scenarios through 2045 (SCRWA 2021). Impacts would be less than significant.

Electricity, Natural Gas, and Telecommunications

As described in Section 6, *Energy*, the project would require approximately 9 GWh of electricity. As stated in the 2005 EIR, because services are readily available near the project site, impacts would be less than significant. Because the City of Morgan Hill has prohibited the use of natural gas in new development, the project would not involve the use of natural gas. As circumstances have not changed with respect to electricity and telecommunications infrastructure, the project would continue to have a less-than-significant impact. This issue will not be analyzed further in a Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*
- e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

The City disposes of solid waste at the Kirby Canyon Recycling and Disposal Facility. This landfill has a maximum permitted throughput of 2,600 tons per day and a remaining capacity of 16,191,000 cubic yards (CalRecycle 2021). Since 2014, Waste Solutions Group has contracted with the City of Morgan Hill to provide solid waste disposal services at John Smith Road Landfill for the waste collected by Recology. The John Smith Road Landfill is owned by San Benito County, and as of March 30, 2022, out-of-county waste will not be accepted at John Smooth Road Landfill for an indefinite period of time, presumably until capacity expansion efforts are finalized.

As shown in Table 37, the project would result in a net increase in solid waste generation of approximately 181 pounds per day (0.09 tons per day). This represents approximately 0.003 percent of the landfill's maximum permitted throughput. The project would be subject to 2005 EIR Mitigation Measure 3.13-1, which requires recycling receptacles be provided to further reduce solid waste generation of the project. Because there is adequate capacity available to serve the project, and mitigation would increase the solid waste diversion of project-generated waste, no additional impacts beyond those identified in the 2005 EIR would occur.

Table 37 Estimated Solid Waste Generation (Net Increase from 2005 EIR)

Land Use	Size	Generation Rate ¹	Total (lbs/year)	Total (lbs/day)
Residential	+498 units	920 lbs/unit/year	+458,160	+1,255
Hotel	+140 rooms	1,095 lbs/room/year	+153,300	+420
Retail	-259,690 sf	2,100 lbs/1,000 sf/year	-545,349	-1,494
Total²			+66,111	+181

Notes: lbs= pounds; sf = square feet

¹ Rates from CalEEMod.

Totals may not add due to rounding.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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20 Wildfire

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
--	---------------------------------------	---	--	--	--

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- | | | | | | |
|--|-----|----|----|----|-----|
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | N/A | No | No | No | N/A |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | N/A | No | No | No | N/A |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | N/A | No | No | No | N/A |

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	N/A	No	No	No	N/A

2005 EIR Summary

Impacts to Wildfire were analyzed in Section 3.07 of the 2005 EIR. The EIR concluded that the proposed project would result in no impact to wildfire, as the project site consists of agricultural land and is not located in an area prone to wildland fire or excessive fuel loading.

Impact Analysis

- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*
- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*
- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*
- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The proposed project is not located in a State Responsibility Area (SRA) or located near a VHFHSZ. According to the Fire Hazard Severity Zone Viewer prepared by CAL FIRE, the nearest VHFHSZ to the project site is approximately 1.3 miles southwest, across U.S. 101 (CAL FIRE 2021). Therefore, the project would result in less-than-significant impacts related to wildfire. These topics will not be discussed in the Subsequent EIR.

LESS THAN SIGNIFICANT IMPACT

21 Mandatory Findings of Significance

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
--	--	---	--	---	--

Does the project:

- | | | | | | |
|---|-----|-----|-----|----|-----|
| a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | N/A | Yes | Yes | No | N/A |
| b. Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of | N/A | Yes | Yes | No | N/A |

	Where was Impact Analyzed in the EIR?	Does the Proposed Project Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
probable future projects)?					
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	N/A	Yes	Yes	No	N/A

- a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Consistent with the findings of the 2005 EIR and as discussed in this Initial Study in Section 4, *Biological Resources*, the project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife species population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Mitigation Measures 3.4-1a, 3.4-1b, 3.4-2, and 3.4-3 of the 2005 EIR would still apply and would be required to reduce impacts to less-than-significant levels.

As discussed in the 2005 EIR and in this Initial Study in Section 5, *Cultural Resources*, and Section 7, *Geology and Soils*, the project would not impact or eliminate important examples of the major periods of California history or prehistory, including archaeological or paleontological resources. Mitigation Measures 3.5-1a and 3.5-1b of the 2005 EIR would still apply and would be required to reduce impacts to less-than-significant levels. As such, the project would not result in impacts beyond those identified in the 2005 EIR.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Pursuant to *CEQA Guidelines* Section 15064(h)(3), cumulative impacts associated with some of the resource areas have been addressed in the individual resource sections above: Air Quality, Greenhouse Gases, Water Supply, Solid Waste, Population and Housing, and Transportation. As described in Section 3: *Air Quality*, Section 8: *Greenhouse Gas Emissions*, and Section 17: *Transportation* of the Environmental Checklist. Development of the proposed project could result in significant cumulative impacts. These impacts will be analyzed further in a Subsequent EIR.

Cumulative impacts of water supply and solid waste would be less than significant. Other issues (e.g., Aesthetics, Hazards and Hazardous Materials) are site-specific by nature, and impacts at one location do not typically add to impacts at other locations or create additive impacts.

POTENTIALLY SIGNIFICANT IMPACT

- c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

In general, impacts to human beings are associated with air quality, geologic hazards, GHGs, hazards and hazardous materials, noise, and traffic safety impacts. As described in Section 7, *Geology and Soils*, impacts related to geologic hazards would be less than significant with mitigation incorporated. As discussed in Section 9, *Hazards and Hazardous Materials*, impacts related to hazards and hazardous materials would be less than significant with mitigation incorporated. As discussed in Section 13, *Noise*, impacts related to noise would be less than significant with mitigation incorporated. However, as mentioned in criterion b, the project could result in significant effects on air quality, GHGs, and traffic safety that could be potentially significant and will be analyzed further in a Subsequent EIR.

POTENTIALLY SIGNIFICANT IMPACT

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List of Preparers

Rincon prepared this Initial Study under contract to the City of Morgan Hill. Persons involved in data gathering analysis, project management, and quality control are listed below.

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Appendix AQ

California Emissions Estimator Model Outputs

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Cochrane Commons Phase II - Full Buildout GHG****Bay Area AQMD Air District, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	939.00	Space	0.00	375,600.00	0
Hotel	140.00	Room	0.00	203,280.00	0
Apartments Mid Rise	394.00	Dwelling Unit	29.57	410,000.00	1127
Condo/Townhouse	104.00	Dwelling Unit	0.00	175,000.00	297
Strip Mall	135.00	1000sqft	0.00	135,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2030
Utility Company	Silicon Valley Clean Energy				
CO2 Intensity (lb/MWhr)	2	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is in Morgan Hill, Santa Clara County --> BAAQMD. Silicon Valley Clean Energy is the electricity provider.

Land Use - 104 Townhomes, 394 apartment units, 135,000 square feet of retail, and 140 key hotel. Parking lot with 939 stalls and 428 garage spaces, only modeling the parking lot stalls since residences include parking

Construction Phase - Operational Model, No Construction Scenario

Grading -

Vehicle Trips - modeling traffic in a separate output to be consistent with the traffic trip generation rate land uses

Woodstoves - City of Morgan Hill Chapter 15.63, 15.63.040 ordinance: All electric construction no hearths

Area Coating - BAAQMD Regulation 8, Rule 3: Flat coatings 50 g/L and traffic markings 100 g/L

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Energy Use - City of Morgan Hill Chapter 15.63, 15.63.040 ordinance: All electric construction

Water And Wastewater - Wastewater treated at a wastewater treatment plant managed by South County Regional Wastewater Authority, all aerobic plant

Area Mitigation -

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps - 3x 150 kW diesel generators with 201 HP. Testing for 50 hours per year or 0.14 hours per day

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	T24NG	5,226.68	0.00
tblEnergyUse	T24NG	14,104.62	0.00
tblEnergyUse	T24NG	39.16	0.00
tblEnergyUse	T24NG	2.34	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	59.10	0.00
tblFireplaces	NumberGas	15.60	0.00
tblFireplaces	NumberNoFireplace	15.76	0.00
tblFireplaces	NumberNoFireplace	4.16	0.00
tblFireplaces	NumberWood	66.98	0.00
tblFireplaces	NumberWood	17.68	0.00
tblLandUse	LandUseSquareFeet	394,000.00	410,000.00
tblLandUse	LandUseSquareFeet	104,000.00	175,000.00

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	8.45	0.00
tblLandUse	LotAcreage	4.67	0.00
tblLandUse	LotAcreage	10.37	29.57
tblLandUse	LotAcreage	6.50	0.00
tblLandUse	LotAcreage	3.10	0.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	7.88	0.00
tblWoodstoves	NumberCatalytic	2.08	0.00
tblWoodstoves	NumberNoncatalytic	7.88	0.00
tblWoodstoves	NumberNoncatalytic	2.08	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
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Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Highest

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5958	4.5958	0.0000	0.0000	4.5958
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.0247	0.0691	0.0631	1.2000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	11.4810	11.4810	1.6100e-003	0.0000	11.5213
Waste						0.0000	0.0000		0.0000	0.0000	90.8344	0.0000	90.8344	5.3682	0.0000	225.0384
Water						0.0000	0.0000		0.0000	0.0000	16.2741	0.3115	16.5856	0.0560	0.0354	28.5324
Total	4.3623	0.1118	3.7621	3.2000e-004	0.0000	0.0242	0.0242	0.0000	0.0242	0.0242	107.1085	22.4501	129.5586	5.4316	0.0354	275.8949

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.5958	4.5958	0.0000	0.0000	4.5958
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Stationary	0.0247	0.0691	0.0631	1.2000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	11.4810	11.4810	1.6100e-003	0.0000	11.5213
Waste						0.0000	0.0000		0.0000	0.0000	90.8344	0.0000	90.8344	5.3682	0.0000	225.0384
Water						0.0000	0.0000		0.0000	0.0000	16.2741	0.3115	16.5856	0.0560	0.0354	28.5324
Total	4.3623	0.1118	3.7621	3.2000e-004	0.0000	0.0242	0.0242	0.0000	0.0242	0.0242	107.1085	22.4501	129.5586	5.4316	0.0354	275.8949

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/2/2022	5/1/2022	5	0	

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction On-Site

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction On-Site

[illegible]

Mitigated Construction Off-Site

[illegible]

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Condo/Townhouse	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Condo/Townhouse	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Hotel	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Parking Lot	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Strip Mall	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

[illegible]

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.52337e+006	1.3820	0.0000	0.0000	1.3820
Condo/Townhouse	504241	0.4574	0.0000	0.0000	0.4574
Hotel	1.50427e+006	1.3647	0.0000	0.0000	1.3647
Parking Lot	131460	0.1193	0.0000	0.0000	0.1193
Strip Mall	1.40265e+006	1.2725	0.0000	0.0000	1.2725
Total		4.5958	0.0000	0.0000	4.5958

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.52337e+006	1.3820	0.0000	0.0000	1.3820
Condo/Townhouse	504241	0.4574	0.0000	0.0000	0.4574
Hotel	1.50427e+006	1.3647	0.0000	0.0000	1.3647
Parking Lot	131460	0.1193	0.0000	0.0000	0.1193
Strip Mall	1.40265e+006	1.2725	0.0000	0.0000	1.2725
Total		4.5958	0.0000	0.0000	4.5958

6.0 Area Detail**6.1 Mitigation Measures Area**

No Hearths Installed

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Unmitigated	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1113	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Total	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1113	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Total	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

7.0 Water Detail**7.1 Mitigation Measures Water**

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	16.5856	0.0560	0.0354	28.5324
Unmitigated	16.5856	0.0560	0.0354	28.5324

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	25.6707 / 16.1837	9.2597	0.0313	0.0198	15.9271
Condo/Townhouse	6.77602 / 4.27184	2.4442	8.2500e-003	5.2100e-003	4.2041
Hotel	3.55135 / 0.394594	1.2752	4.3200e-003	2.7300e-003	2.1975
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	9.99979 / 6.1289	3.6065	0.0122	7.6900e-003	6.2037
Total		16.5856	0.0560	0.0354	28.5324

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	25.6707 / 16.1837	9.2597	0.0313	0.0198	15.9271
Condo/Townhouse	6.77602 / 4.27184	2.4442	8.2500e-003	5.2100e-003	4.2041
Hotel	3.55135 / 0.394594	1.2752	4.3200e-003	2.7300e-003	2.1975
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	9.99979 / 6.1289	3.6065	0.0122	7.6900e-003	6.2037
Total		16.5856	0.0560	0.0354	28.5324

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	90.8344	5.3682	0.0000	225.0384
Unmitigated	90.8344	5.3682	0.0000	225.0384

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	181.24	36.7901	2.1742	0.0000	91.1459
Condo/Townhouse	47.84	9.7111	0.5739	0.0000	24.0588
Hotel	76.65	15.5593	0.9195	0.0000	38.5474
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	141.75	28.7740	1.7005	0.0000	71.2863
Total		90.8344	5.3682	0.0000	225.0384

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	181.24	36.7901	2.1742	0.0000	91.1459
Condo/Townhouse	47.84	9.7111	0.5739	0.0000	24.0588
Hotel	76.65	15.5593	0.9195	0.0000	38.5474
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	141.75	28.7740	1.7005	0.0000	71.2863
Total		90.8344	5.3682	0.0000	225.0384

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	3	0.14	50	201	0.73	Diesel

Boilers

Cochrane Commons Phase II - Full Buildout GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
----------------	--------

10.1 Stationary Sources**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	0.0247	0.0691	0.0631	1.2000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	11.4810	11.4810	1.6100e-003	0.0000	11.5213
Total	0.0247	0.0691	0.0631	1.2000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	11.4810	11.4810	1.6100e-003	0.0000	11.5213

11.0 Vegetation

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG****Bay Area AQMD Air District, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	939.00	Space	0.00	375,600.00	0
Hotel	140.00	Room	0.00	203,280.00	0
Single Family Housing	498.00	Dwelling Unit	29.57	585,000.00	1424
Strip Mall	135.00	1000sqft	0.00	135,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2030
Utility Company	Silicon Valley Clean Energy				
CO2 Intensity (lb/MW hr)	2	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project is in Morgan Hill, Santa Clara County --> BAAQMD. Silicon Valley Clean Energy is the electricity provider.

Land Use - 104 Townhomes, 394 apartment units modeled as 498 single-family DU for consistency with traffic, 135,000 square feet of retail, and 140 key hotel. Parking lot with 939 stalls

Construction Phase - Operational Model, No Construction Scenario

Grading -

Vehicle Trips - 8.02 trips/DU for residences, 31.8 trips/sf for retail, 11.79 trips/room for the hotel. The rates accounts for all reductions except passby reduction

Woodstoves - City of Morgan Hill Chapter 15.63, 15.63.040 ordinance: All electric construction no hearths

Area Coating - BAAQMD Regulation 8, Rule 3: Nonflat coatings 100 g/L and traffic markings 100 g/L

Energy Use - Mobile Source Emissions Model

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water And Wastewater - Mobile Source Emissions Model

Solid Waste - Mobile Source Emissions Model

Area Mitigation -

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	LightingElect	2.35	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	LightingElect	5.25	0.00
tblEnergyUse	NT24E	3.22	0.00
tblEnergyUse	NT24E	6,155.97	0.00
tblEnergyUse	NT24E	2.68	0.00
tblEnergyUse	NT24NG	4.75	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24E	1.83	0.00
tblEnergyUse	T24E	68.41	0.00
tblEnergyUse	T24E	2.46	0.00
tblEnergyUse	T24NG	39.16	0.00
tblEnergyUse	T24NG	23,474.54	0.00
tblEnergyUse	T24NG	2.34	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	124.50	0.00
tblFireplaces	NumberNoFireplace	39.84	0.00

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFireplaces	NumberWood	214.14	0.00
tblGrading	AcresOfGrading	0.00	30.00
tblLandUse	LandUseSquareFeet	896,400.00	585,000.00
tblLandUse	LotAcreage	8.45	0.00
tblLandUse	LotAcreage	4.67	0.00
tblLandUse	LotAcreage	161.69	29.57
tblLandUse	LotAcreage	3.10	0.00
tblSolidWaste	SolidWasteGenerationRate	76.65	0.00
tblSolidWaste	SolidWasteGenerationRate	598.08	0.00
tblSolidWaste	SolidWasteGenerationRate	141.75	0.00
tblVehicleTrips	WD_TR	8.36	11.79
tblVehicleTrips	WD_TR	9.44	8.02
tblVehicleTrips	WD_TR	44.32	31.80
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	3,551,347.80	0.00
tblWater	IndoorWaterUseRate	32,446,704.76	0.00
tblWater	IndoorWaterUseRate	9,999,790.40	0.00
tblWater	OutdoorWaterUseRate	394,594.20	0.00
tblWater	OutdoorWaterUseRate	20,455,531.26	0.00
tblWater	OutdoorWaterUseRate	6,128,903.79	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	19.92	0.00
tblWoodstoves	NumberNoncatalytic	19.92	0.00
tblWoodstoves	WoodstoveDayYear	21.06	0.00
tblWoodstoves	WoodstoveWoodMass	956.80	0.00

2.0 Emissions Summary

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
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Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Highest

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.0374	3.1196	27.7373	0.0557	6.9736	0.0378	7.0115	1.8633	0.0353	1.8986	0.0000	5,434.4549	5,434.4549	0.3514	0.2610	5,521.0137
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.3749	3.1622	31.4363	0.0559	6.9736	0.0584	7.0320	1.8633	0.0558	1.9191	0.0000	5,440.5168	5,440.5168	0.3572	0.2610	5,527.2208

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.0374	3.1196	27.7373	0.0557	6.9736	0.0378	7.0115	1.8633	0.0353	1.8986	0.0000	5,434.4549	5,434.4549	0.3514	0.2610	5,521.0137
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.3749	3.1622	31.4363	0.0559	6.9736	0.0584	7.0320	1.8633	0.0558	1.9191	0.0000	5,440.5168	5,440.5168	0.3572	0.2610	5,527.2208

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/2/2022	5/1/2022	5	0	

Acres of Grading (Site Preparation Phase): 30

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction On-Site

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction On-Site

[illegible]

Mitigated Construction Off-Site

[illegible]

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0374	3.1196	27.7373	0.0557	6.9736	0.0378	7.0115	1.8633	0.0353	1.8986	0.0000	5,434.4549	5,434.4549	0.3514	0.2610	5,521.0137
Unmitigated	3.0374	3.1196	27.7373	0.0557	6.9736	0.0378	7.0115	1.8633	0.0353	1.8986	0.0000	5,434.4549	5,434.4549	0.3514	0.2610	5,521.0137

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,650.60	1,146.60	833.00	2,777,319	2,777,319
Parking Lot	0.00	0.00	0.00		
Single Family Housing	3,993.96	4,750.92	4257.90	9,561,319	9,561,319
Strip Mall	4,293.00	5,675.40	2758.05	6,577,800	6,577,800
Total	9,937.56	11,572.92	7,848.95	18,916,438	18,916,438

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Parking Lot	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Single Family Housing	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638
Strip Mall	0.555148	0.059467	0.187500	0.120419	0.022094	0.005825	0.011277	0.007430	0.000952	0.000505	0.025870	0.000875	0.002638

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

[illegible]

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

No Hearths Installed

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Unmitigated	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1113	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Total	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6302					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1113	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071
Total	4.3375	0.0426	3.6990	2.0000e-004		0.0206	0.0206		0.0206	0.0206	0.0000	6.0618	6.0618	5.8100e-003	0.0000	6.2071

7.0 Water Detail**7.1 Mitigation Measures Water**

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Cochrane Commons Phase II - Full Buildout (Mobile Only) GHG - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number
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11.0 Vegetation

Cochrane Commons Phase II

Natural Gas to Electricity Conversion and Emissions Estimation Tool

Total Estimated Natural Gas Usage (kBTU)	Equivalent Electricity Usage (kBtu)	Equivalent Electricity Usage (MWh)
14,339,300	14,339,300	4,203

GHG Emission Calculations

	UTILITY		CO ₂ e Conversion Calculations	
	Energy Intensity Factor (lbs/MWh)	Emissions (lbs)	Total CO ₂ e Emissions (lbs)	Total CO ₂ e Emissions (MT)
CO ₂	2.00	8,405	8,405	4
CH ₄	0.000	-	-	-
N ₂ O	0.000	-	-	-
TOTAL GHG EMISSIONS FROM ELECTRICITY				4

Notes

- MWh = megawatt-hours; lbs = pounds; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent; MT = metric tons; IPCC = Intergovernmental Panel on Climate Change; CARB = California Air Resources Board

- Natural gas usage calculated in CalEEMod.

- Energy intensity factors for Silicon Valley Clean Energy based on 2021 energy intensity factor from CalEEMod

- Natural gas to electricity conversion assumes an equal energy demand would be supplied by electricity rather than natural gas.

- CH₄ conversion assumes 1 lb CH₄ is equivalent to 25 lbs CO₂e (consistent with IPCC AR4 [2007], which informs CARB's 2017 Scoping Plan)

- N₂O conversion assumes 1 lb N₂O is equivalent to 298 lbs CO₂e (consistent with IPCC AR4 [2007], which informs CARB's 2017 Scoping Plan)

Appendix CUL

Cultural Resources Assessment



Rincon Consultants, Inc.

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March 17, 2020

Project No: 19-07804

Richard Smeaton, AICP

Contract Planner

City of Morgan Hill

17575 Peak Avenue

Morgan Hill, California 95037-4128

Subject: Cultural Resources Assessment for the Cochrane-Morgan Hill Retail Ventures Project (ZA2019-0003), City of Morgan Hill, Santa Clara County, California

Dear Mr. Smeaton:

This report presents the updated findings of a cultural resources study for Phase II of the Cochrane-Morgan Hill Retail Ventures Project (project) in Morgan Hill, Santa Clara County, California. The City of Morgan Hill (City) previously completed an Environmental Impact Report (EIR) in 2005 for the Cochrane Retail Development and Phase I of the project was constructed. Construction of Phase II was not completed at that time. Rincon understands the project applicant proposes to complete Phase II of the project and that the project is being amended to be consistent with the new 2035 General Plan Updated and recent zoning code updates. Because the cultural resources documentation for the project was prepared over ten years ago, Rincon undertook this study to evaluate whether the project would result in new or substantially increased impacts. This study includes a search of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park, California Native American Heritage Commission (NAHC) outreach, and an intensive-level survey of the project site. All work was completed in compliance with California Environmental Quality Act (CEQA). The City is the lead agency under CEQA.

Project Site

The project site is located at the southwest corner of Mission View Drive / Cochrane Road in the City of Morgan Hill (Figure 1). The project site is approximately 14 acres and located just north of Phase I of the Cochrane Commons Shopping Center (Shopping Center). It is bounded by Depaul Drive to the south, Cochrane Road to the east, Mission View Drive to the north, and adjacent agriculture, single-family residential, and industrial development to the west. The site is located in the northern edge of the City and is approximately 800 feet north of U.S. Highway 101 (U.S. 101). Figure 2 depicts the project site in its neighborhood context (Attachment A).

Previous EIR Findings

The 2005 EIR identified three residences in the current project area. They were identified as: 1195 Cochran Road A (built 1930), 1195 Cochrane Road B (built 1912), and 1195 Cochran Road C (built 1940). The 2005 EIR found these residences ineligible for listing in the California Register of Historical



Resources and they were demolished. Research completed for the 2005 EIR furthermore did not identify any prehistoric sites, historic sites, or isolated artifacts.

Cultural Resources Records Search

A search of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC) located at Sonoma State University was completed on January 3, 2020. The search was performed to identify all previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.5-mile radius surrounding it. The CHRIS search included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, and the Archaeological Determinations of Eligibility list.

The NWIC records search identified 27 previously conducted cultural resources studies that have been performed within a 0.5-mile radius of the project site; three of the studies overlap with the project site (Table 1). The NWIC records search did not identify any previously recorded cultural resources within a 0.5-mile radius of the project site. A summary of the record search results is provided in Attachment B.

Table 1 Previous Cultural Resources Studies within 0.5 mile of the Project Site

Report Number	Author(s)	Year	Title	Relationship to Project Site
S-004823	Haversat, Trudy and Gary S. Breschini	1979	<i>Preliminary Archaeological Reconnaissance of the Morgan Hill Business Park, South of Cochran Road, Santa Clara County, California</i>	Outside
S-005251	Carrier, Robert, Jan Whitlow, Charlene Detlefs, and Barbara Bocek	1979	<i>The Archeological Reconnaissance and Subsurface Testing of Three Pipeline Components of the District's In-County Water Distribution System: Anderson Force Main, Cross Valley Pipeline, and Almaden Valley Pipeline Unit II</i>	Inside
S-007955	Hampson, R. Paul and Gary S. Breschini	1986	<i>Summary Report on Archaeological Monitoring for the Cross Valley Pipeline Phase IV, Anderson Force Main and Coyote Discharge Line, Santa Clara County, California</i>	Inside
S-008906	Holman, Miley Paul	1986	<i>Archaeological Inspection of the Creekside Estates Project, Morgan Hill, Santa Clara County, California (letter report)</i>	Outside
S-008907	Holman, Miley Paul	1986	<i>Follow-up Backhoe Trenching of the Creekside Estates Project, Morgan Hill, Santa Clara County, California (letter report)</i>	Outside
S-009848	Hampson, R. Paul and Gary S. Breschini	1988	<i>Archaeological Testing at Parcel APN 727-67-14, Morgan Hill, Santa Clara County, California</i>	Outside
S-009853	Hampson, R. Paul and Gary S. Breschini	1988	<i>Preliminary Cultural Resources Reconnaissance of Parcel APN 727-67-14, Morgan Hill, Santa Clara County, California</i>	Outside
S-011077	Runnings, Anna and Trudy Haversat	1989	<i>Preliminary Cultural Resources Reconnaissance of Assessor's Parcel Number 727-67-15, Morgan Hill, Santa Clara County, California</i>	Outside



Report Number	Author(s)	Year	Title	Relationship to Project Site
S-012550	Archaeological Resource Management	1990	<i>Cultural Resource Evaluation for a Parcel on Malaguerra Avenue in the City of Morgan Hill, County of Santa Clara</i>	Outside
S-021391	Holson, John	1998	<i>Archaeological Survey for Morgan Hill Property (letter report)</i>	Outside
S-023896	Far Western Anthropological Research Group, Inc.	2001	<i>Effects Assessment for Archaeological Sites Located Within the APE of the Proposed U.S. 101 Widening Project from Bernal Road in the City of San Jose to Cochrane Road in the City of Morgan Hill, K.P. 5.73 / 10.78 (P.M. R18.7/ R27.0)</i>	Inside
S-028820	Brown, R. Keith	1999	<i>Historical Cultural Resources Assessment, Proposed Telecommunications Facility, Cochrane Plaza, Site No. SF-815-01, 144 Cochrane Plaza, Morgan Hill, California (letter report)</i>	Outside
S-029506	Bignell, Don	2002	<i>Cultural Resources Review for Site SF-815-04, New Flagpole, 144 Cochrane Road, Morgan Hills, Santa Clara County, California (Vertex Project # TBA; ASC Project # QA 16658-02) (letter report)</i>	Outside
S-030283	Holson, John	2005	<i>Cultural Resources Assessment of the Proposed Cochrane Plaza Flagpole Cell Site, (SJ-902-01), Morgan Hill, CA. (PL-1170-104) (letter report)</i>	Outside
S-032250	Lapin, Philippe	2003	<i>Historic Property Survey Report, Mission Bells Project, State Route 82/Interstate 101, San Mateo and Santa Clara Counties, California</i>	Outside
S-032250a	Lapin, Philippe	2003	<i>Archaeological Survey Report, Mission Bells Project, State Route 82/Interstate 101, San Mateo and Santa Clara Counties, California</i>	Outside
S-034167	Holman, Miley Paul	2007	<i>Cultural Resources Study of the Silverwings Court/Lands of Eliert Project Area (APN-728-45-043), Morgan Hill, Santa Clara County, California (letter report)</i>	Outside
S-043988	Harris, Benjamin and Douglas Bright	2011	<i>Supplemental Historic Property Survey Report for the Freeway Performance Initiative along Highway 101 in Santa Clara County, California (PM 7.0-7.2, 21.55-22.3 and 26.2-26.55)</i>	Outside
S-043988a	Harris, Benjamin and Kathryn Rosa	2012	<i>Supplemental Archaeological Survey Report for the Freeway Performance Initiative along Highway 101 in Santa Clara County, California, 04-SCL-101 (PM 7.0-7.2, 21.55-22.3 and 26.2-26.55)</i>	Outside
S-043988b	Harris, Benjamin and Kathryn Rosa	2011	<i>Historic Property Survey Report for the Freeway Performance Initiative along Highway 101 in Santa Clara County, California, (PM 7.0-7.2, 21.55-22.3 and 26.2-26.55)</i>	Outside



Report Number	Author(s)	Year	Title	Relationship to Project Site
S-043988c	Harris, Benjamin	2011	<i>Archaeological Survey Report for the Freeway Performance Initiative along Highway 101 in Santa Clara County, California, 04-SCL-101 (PM 0.0 - 26.55)</i>	Outside
S-043988d	McKee, Elizabeth	2012	<i>FHWA111128A: Supplemental Historic Property Survey Report (HPSR) - Finding of No Adverse Effect with Standard Conditions - ESAs for the Freeway Performance Initiative (FPI) project along Highway 101 in Santa Clara County, California (ESA 153301/Project ID 0400020304)</i>	Outside
S-046052	Fies, Robin	2014	<i>Cultural Resources Constraints Report, Morgan Hill 2108 Recondutor, Santa Clara County, California</i>	Outside
S-046205	Harris, Benjamin and Helen Blackmore	2015	<i>Historic Property Survey Report, Resurface and Repair Project, 04-SCL-101 PM 16.00-27.90, E-FIS Project Number 0414000303/EA 1J630</i>	Outside
S-046205a	Harris, Benjamin	2015	<i>Archaeological Survey Report for the US 101 Resurface and Repair Project, Santa Clara County, California, E-FIS / EA: 0414000303/1J6300, 04-SCL-101 (PM 16.00 -27.90)</i>	Outside
S-047015	Clark, Matthew R. and Gerald Starek	2015	<i>Final Archaeological Monitoring Report for the MH Ventura Investors LLC Development on Cochrane Road in the City of Morgan Hill, Santa Clara County, California</i>	Outside
S-048530	Hall, Jeffrey T. and Kelly McGuire	1985	<i>Results of an Intensive Cultural Resource Survey of the Proposed Coyote Transmission Line</i>	Outside

Source: Northwest Information Center 2020

S-005251

In 1979, Cartier et al. completed an archaeological reconnaissance and subsurface testing for three pipelines being laid for Santa Clara County's water distribution system (S-005251). They discovered 19 prehistoric archaeological sites, including habitation sites, Franciscan chert quarries, and lithic scatters. Ten sites were excavated, and six sites were determined to be potentially eligible for the NRHP and CRHR. No sites are located within the project boundaries.

S-007955

Hampson and Breschini completed a summary report on archaeological monitoring for the Cross Valley Pipeline Project in 1986. Surface areas impacted by the pipeline construction were examined for artifacts and monitoring consisted of observing freshly cut faces on trench sidewalls and cursory examination of the spoils. Two previously recorded prehistoric sites were located at Cochrane Road and Coyote Creek, northeast of the project. A thin scattering of lithic flakes was noted on near Cochrane Road and Peet Road, northeast of the project area. No cultural resources were noted as being within the project boundaries.



S-023896

In 2001, Far Western Anthropological Research Group, Inc. completed an effects assessment for archaeological sites for the U.S. 101 Widening Project. A total of 17 previously recorded archaeological sites and two reburial sites were identified within the S-023896 project area of potential effect (APE). Six of these sites had been considered eligible for the NRHP and CRHR. Seven were considered potentially eligible, and investigated with field inspection. One site, CA-SCL-178, required additional investigation with auger testing. No archaeological sites were located within the project boundaries.

Sacred Lands File Search

Rincon contacted the Native American Heritage Commission (NAHC) on December 27, 2019 to request a search of the Sacred Lands File (SLF) and a contact list of Native Americans culturally affiliated with the project area. A response was received from the NAHC on December 27, 2019 stating the SLF search had been completed with “negative” results (Attachment C). Rincon also sent letters to five local Native American groups on December 30, 2019 requesting information on Native American cultural resources that may be present in the project site. As of March 4, 2020, no responses have been received.

Historical Map and Aerial Imagery Review

A review of historic maps and aerial photographs available online at NETRonline (2019) indicates that the project site previously had three private residences but otherwise was largely undeveloped or used for agricultural purposes from the 1950s through 2000s. Circa 2009, the three residences were demolished and part of the area was covered with pavement to serve as overflow parking. The project site has not changed since this date. Residential development surrounding the project site only began in earnest in the 1990s as the area was subdivided for single-family residences. Residences in a subdivision were constructed immediately northeast of the project site from 2016-2019.

Field Survey

Rincon Archaeologist Elaine Foster conducted a field visit to the project site on February 5, 2020. The archaeologist surveyed the approximately 14-acre parcel that contains the project site using transects spaced no more than 15 meters apart. The survey transects were oriented generally in a north-south direction. The archaeologist examined exposed ground surface for the following: artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). Ground disturbances such as burrows and drainages were inspected visually. Field notes of survey conditions and observations were recorded using Rincon field forms and a digital camera. Copies of the original field notes and photographs are maintained at Rincon’s Ventura office.

Results of the field survey identified no evidence of archaeological remains or historic built-environment resources within the project site. Ground visibility ranged from poor to fair (0 to 80 percent) with vegetation consisting of dense areas of grasses, bushes, and shrubs (Figure 7). Modern disturbances on the project site include refuse, gravel fill and dirt roads (Figures 8 and 9), construction debris, and above ground water infrastructure (Figure 10). Surface sediments consist mostly of a brown loamy soil. Scattered modern refuse and construction debris was observed throughout the project site.



Findings and Recommendations

The City of Morgan Hill retained Rincon to complete a cultural resource assessment for the Cochrane-Morgan Hill Retail Ventures Project. The assessment included a CHRIS records search, Native American outreach, archival research, pedestrian field survey, and preparation of this letter report. The study was conducted in accordance with the requirements of CEQA.

The results of the study identified no prehistoric or historic period cultural resources on the project site. The extant data indicate that the project site exhibits a relatively low sensitivity for containing intact, subsurface archaeological deposits. The lack of reported archaeological resources within 0.5 miles of the project site indicates that the area is not highly sensitive for prehistoric or historic archaeological remains. This is supported by the field survey, which did not indicate the presence of historic or archaeological resources. A review of historical topographic maps and aerial photographs found that the area has remained largely undeveloped and was primarily used for agricultural purposes prior to the 1980s. As such, it is unlikely that early historic period archaeological remains dating to the late 19th or early 20th centuries would be present within the project site.

Based on these findings, Rincon recommends a finding of ***no impact to historical resources*** and ***less than significant impact with mitigation for archaeological resources*** under CEQA.

Rincon presents the following measure in case of unanticipated discovery of cultural resources during project development. The project is also required to adhere to regulations regarding the unanticipated discovery of human remains, detailed below.

Unanticipated Discovery of Archaeological Resources

If archaeological resources are encountered during ground-disturbing activities, work in the immediate area should be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to historical resources.

Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access.

Please do not hesitate to contact Rincon with any questions regarding this archaeological study.

Sincerely,
Rincon Consultants, Inc.



A handwritten signature in cursive script that reads "Hannah Haas".

Hannah Haas, M.A., RPA
Senior Archaeologist

A handwritten signature in cursive script that reads "Elaine Foster".

Elaine Foster, B.A.
Associate Archaeologist

A handwritten signature in cursive script that reads "Christopher Duran".

Christopher Duran, M.A., RPA
Archaeological Resources Program Manager &
Principal Investigator



Attachments

Attachment A Figures

Attachment B CHRIS Cultural Resource Report List

Attachment C NAHC SLF Results



References

National Park Service (NPS)

- 1983 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Electronic document accessed December 27, 2019. Online at http://www.nps.gov/history/local-law/Arch_Standards.htm.

NETRonline

- 2019 Historic Aerials of Project Area, City of Morgan Hill, CA. Electronic maps accessed online at <https://www.historicaerials.com/viewer>, accessed January 10, 2020.

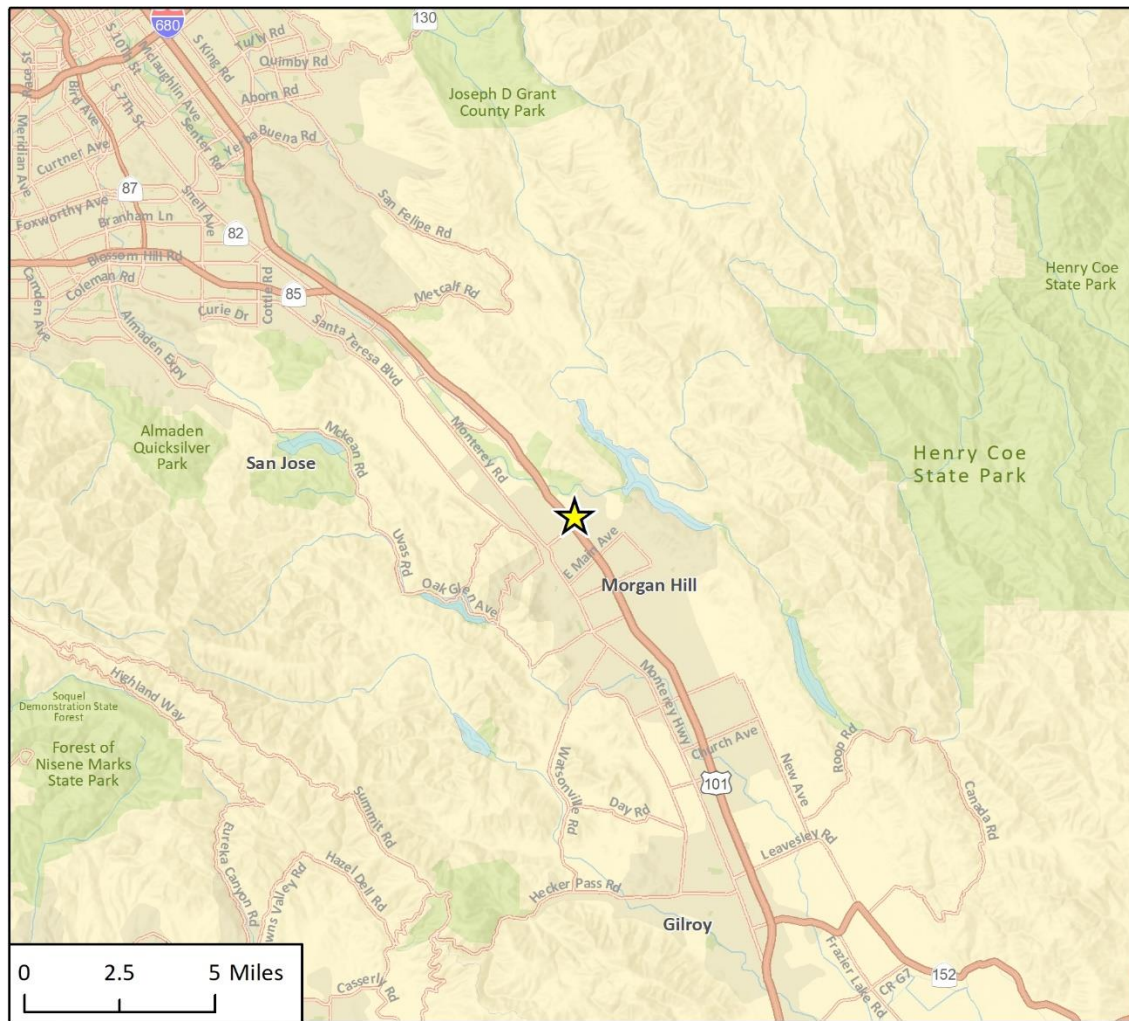
Pacific Municipal Consultants

- 2005 Archaeological and Historical Investigations for the Cochrane Road Planned Unit Development Project in the City of Morgan Hill, Santa Clara County. Appendix E. January 2005.

Appendix A

Figures

Figure 1 Regional Vicinity Map



Imagery provided by Esri and its licensors © 2020.

★ Project Location

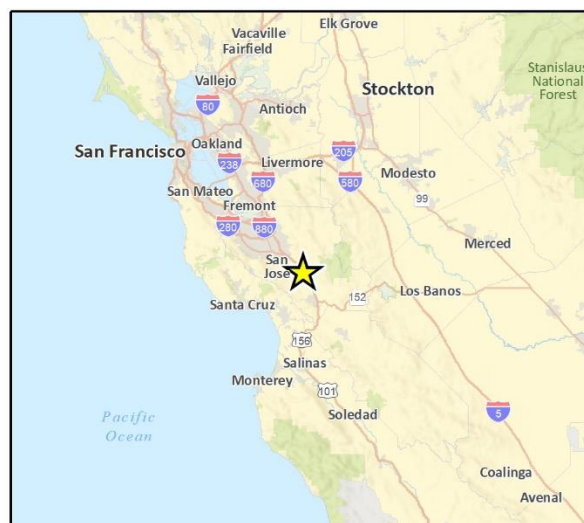


Fig. X Regional Location

Figure 2 Project Location Map



Imagery provided by Microsoft Bing and its licensors © 2020.

Fig. 2 Project Location

Figure 3 Northwestern Corner of Project Site Facing South



Figure 4 Southwestern Corner of Project Site Facing North



Figure 5 Northeast Corner of Project Site Facing West



Figure 6 Southeast Corner of Project Site Facing West



Figure 7 Bushes and Brush at Center of Project Site



Figure 8 Dirt and Gravel Road at Southwest Corner Facing East



Figure 9 Dirt Road at Southwest Corner Facing North



Figure 10 Above-Ground Water Infrastructure at Northern Border of Project Site



Attachment B

CHRIS Cultural Resource Report List

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-004823	Voided - E-713 SCL	1979	Trudy Haversat and Gary S. Breschini	Preliminary Archaeological Reconnaissance of the Morgan Hill Business Park, South of Cochran Road, Santa Clara County, California	Archaeological Consulting	
S-005251	Voided - E-725 SCL	1979	Robert Cartier, Jan Whitlow, Charlene Detlefs, and Barbara Bocek	The Archeological Reconnaissance and Subsurface Testing of Three Pipeline Components of the District's In-County Water Distribution System: Anderson Force Main, Cross Valley Pipeline, and Almaden Valley Pipeline Unit II	Archeological Resource Management	43-000081, 43-000119, 43-000120, 43-000145, 43-000152, 43-000153, 43-000168, 43-000171, 43-000173, 43-000203, 43-000210, 43-000323, 43-000347, 43-000362, 43-000363, 43-000364, 43-000368, 43-000371, 43-000372, 43-000965
S-007955	Submitter - AC Project 577	1986	R. Paul Hampson and Gary S. Breschini	Summary Report on Archaeological Monitoring for the Cross Valley Pipeline Phase IV, Anderson Force Main and Coyote Discharge Line, Santa Clara County, California	Archaeological Consulting	43-000171, 43-000364
S-008906		1986	Miley Paul Holman	Archaeological Inspection of the Creekside Estates Project, Morgan Hill, Santa Clara County, California (letter report)	Holman & Associates	43-000170
S-008907		1986	Miley Paul Holman	Followup Backhoe Trenching of the Creekside Estates Project, Morgan Hill, Santa Clara County, California (letter report)	Holman & Associates	43-000170
S-009848		1988	R. Paul Hampson and Gary S. Breschini	Archaeological Testing at Parcel APN 727-67-14, Morgan Hill, Santa Clara County, California	Archaeological Consulting	43-000364
S-009853		1988	R. Paul Hampson and Gary S. Breschini	Preliminary Cultural Resources Reconnaissance of Parcel APN 727-67-14, Morgan Hill, Santa Clara County, California	Archaeological Consulting	43-000364
S-011077		1989	Anna Runnings and Trudy Haversat	Preliminary Cultural Resources Reconnaissance of Assessor's Parcel Number 727-67-15, Morgan Hill, Santa Clara County, California	Archaeological Consulting	43-000364
S-012550		1990	Archaeological Resource Management	Cultural Resource Evaluation for a Parcel on Malaguerra Avenue in the City of Morgan Hill, County of Santa Clara	Archaeological Resource Management	
S-021391		1998	John Holson	Archaeological Survey for Morgan Hill Property (letter report)	Pacific Legacy, Inc.	43-000171

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-023896		2001		Effects Assessment for Archaeological Sites Located Within the APE of the Proposed U.S. 101 Widening Project from Bernal Road in the City of San Jose to Cochrane Road in the City of Morgan Hill, K.P. 5.73 / 10.78 (P.M. R18.7 / R27.0)	Far Western Anthropological Research Group, Inc.	43-000181, 43-000183, 43-000245, 43-000246, 43-000247, 43-000568, 43-001095
S-028820	Submitter - BMI Project No. 99S-249	1999	R. Keith Brown	Historical Cultural Resources Assessment, Proposed Telecommunications Facility, Cochrane Plaza, Site No. SF-815-01, 144 Cochrane Plaza, Morgan Hill, California (letter report)	Brown & Mills, Inc.	
S-029506		2002	Don Bignell	Cultural Resources Review for Site SF-815-04, New Flagpole, 144 Cochrane Road, Morgan Hills, Santa Clara County, California (Vertex Project # TBA; ASC Project # QA 166 58-02) (letter report)	Anthropological Studies Center, Sonoma State University	
S-030283		2005	John Holson	Cultural Resources Assessment of the Proposed Cochrane Plaza Flagpole Cell Site, (SJ-902-01), Morgan Hill, CA. (PL-1170-104) (letter report)	Pacific Legacy, Inc.	
S-032250		2003	Philippe Lapin	Historic Property Survey Report, Mission Bells Project, State Route 82/Interstate 101, San Mateo and Santa Clara Counties, California	California Department of Transportation	
S-032250a		2003	Philippe Lapin	Archaeological Survey Report, Mission Bells Project, State Route 82/Interstate 101, San Mateo and Santa Clara Counties, California	California Department of Transportation	
S-034167		2007	Miley Paul Holman	Cultural Resources Study of the Silverwings Court/Lands of Eliert Project Area (APN-728-45-043), Morgan Hill, Santa Clara County, California (letter report)	Holman & Associates	
S-043988	Caltrans - EA 153300; Caltrans - Project #0400020304; OHP PRN - FHWA 111128 A	2011	Benjamin Harris and Douglas Bright	Supplemental Historic Property Survey Report for the Freeway Performance Initiative along Highway 101 in Santa Clara County, California (PM 7.0-7.2, 21.55-22.3 and 26.2-26.55)	California Department of Transportation, District 4	43-000106, 43-000175, 43-000181, 43-000189, 43-000247, 43-000568, 43-000573, 43-000626, 43-001078, 43-002463, 43-002464

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-043988a		2012	Benjamin Harris and Kathryn Rosa	Supplemental Archaeological Survey Report for the Freeway Performance Initiative along Highway 101 in Santa Clara County, California, 04-SCL-101 (PM 7.0-7.2, 21.55-22.3 and 26.2-26.55)	California Department of Transportation, District 4	
S-043988b		2011	Benjamin Harris and Douglas Bright	Historic Property Survey Report for the Freeway Performance Initiative along Highway 101 in Santa Clara County, California, (PM 7.0-7.2, 21.55-22.3 and 26.2-26.55)	California Department of Transportation, District 4	
S-043988c		2011	Benjamin Harris Benjamin Harris	Archaeological Survey Report for the Freeway Performance Initiative along Highway 101 in Santa Clara County, California, 04-SCL-101 (PM 0.0 - 26.55)	California Department of Transportation, District 4	
S-043988d		2012	Elizabeth McKee	FHWA111128A: Supplemental Historic Property Survey Report (HPSR) - Finding of No Adverse Effect with Standard Conditions - ESAs for the Freeway Performance Initiative (FPI) project along Highway 101 in Santa Clara County, California (ESA 153301 / Project ID 0400020304)	California Department of Transportation	
S-046052	Other - 31028417	2014	Robin Fies	Cultural Resources Constraints Report, Morgan Hill 2108 Reconstructor, Santa Clara County, California	Garcia and Associates	43-000364
S-046205	Caltrans - 0414000303/EA 1J630	2015	Benjamin Harris and Helen Blackmore	Historic Property Survey Report, Resurface and Repair Project, 04-SCL-101 PM 16.00-27.90, E-FIS Project Number 0414000303/EA 1J630	Caltrans, District 4	43-000175, 43-000181, 43-000183, 43-000189, 43-000247, 43-000250, 43-000251, 43-000345, 43-000415, 43-000416, 43-000568, 43-001001, 43-001095
S-046205a		2015	Benjamin Harris	Archaeological Survey Report for the US 101 Resurface and Repair Project, Santa Clara County, California, E-FIS / EA: 0414000303/IJ6300, 04-SCL-101 (PM 16.00 - 27.90)	Caltrans, District 4	
S-047015		2015	Matthew R. Clark and Gerald Starek	Final Archaeological Monitoring Report for the MH Ventura Investors LLC Development on Cochrane Road in the City of Morgan Hill, Santa Clara County, California	Holman & Associates Archaeological Consultants	43-000364
S-048530		1985	Jeffrey T. Hall and Kelly McGuire	Results of an Intensive Cultural Resource Survey of the Proposed Coyote Transmission Line	Far Western Anthropological Research Group	43-000178, 43-000179, 43-000189, 43-000247

Attachment C

NAHC SLF Results

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>
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December 27, 2019

Courtney Montgomery
Rincon Consultants, Inc.

VIA Email to: cmontgomery@rinconconsultants.com

RE: Cochrane-Morgan Hill Project, Santa Clara County

Dear Ms. Montgomery:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Nancy Gonzalez-Lopez".

Nancy Gonzalez-Lopez
Staff Services Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Santa Clara County
12/27/2019

Amah Mutsun Tribal Band

Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA, 95632
Phone: (916) 743 - 5833
vlopez@amahmutsun.org

Costanoan
Northern Valley
Yokut

***Amah Mutsun Tribal Band of
Mission San Juan Bautista***

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Fax: (650) 332-1526
amahmutsuntribal@gmail.com

Costanoan

***Indian Canyon Mutsun Band of
Costanoan***

Ann Marie Sayers, Chairperson
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Costanoan

***Muwekma Ohlone Indian Tribe
of the SF Bay Area***

Monica Arellano,
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Castro Valley, CA, 94546
Phone: (408) 205 - 9714
marellano@muwekma.org

Costanoan

The Ohlone Indian Tribe

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Fax: (510) 687-9393
chochenyo@AOL.com

Bay Miwok
Ohlone
Patwin
Plains Miwok

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Cochrane-Morgan Hill Project, Santa Clara County.



Rincon Consultants, Inc.

449 15th Street, Suite 303
Oakland, California 94612

510 834 4455 OFFICE AND FAX

info@rinconconsultants.com
www.rinconconsultants.com

December 30, 2019

Amah Mutsun Tribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA 95632

Subject: Cultural Resources Study for the Cochrane-Morgan Hill Retail Venture Project, Morgan Hill, Santa Clara County, California

Dear Chairperson Lopez,

Rincon Consultants, Inc. (Rincon) has been retained by the City of Morgan Hill to conduct a cultural resources study for the Cochrane-Morgan Hill Retail Project (project) located in the City of Morgan Hill. The proposed project involves a General Plan update to include senior and affordable housing, medical and hospitality businesses, as well as recreational and educational uses. Goals of the project include general plan designation change, and the construction of senior and affordable house, medical and hospitality businesses, and retail locations. This project is subject to the California Environmental Quality Act (CEQA) and the City of Morgan Hill is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Morgan Hill.

This letter serves to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon contacted the Native American Heritage Commission to request a Sacred Lands File search of the project site that was returned with "negative results". However, we are aware that the results of this search do not negate the possibility of cultural resources existing within the project site.

If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (559) 228-9925, extension 3005, or at cmontgomery@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in blue ink, appearing to read "Courtney Montgomery", is written over a light blue horizontal line.

Courtney Montgomery
Archaeologist

Enclosed: Project Location Map



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December 30, 2019

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside, CA 94062

Subject: Cultural Resources Study for the Cochrane-Morgan Hill Retail Venture Project, Morgan Hill, Santa Clara County, California

Dear Chairperson Zwierlein,

Rincon Consultants, Inc. (Rincon) has been retained by the City of Morgan Hill to conduct a cultural resources study for the Cochrane-Morgan Hill Retail Project (project) located in the City of Morgan Hill. The proposed project involves a General Plan update to include senior and affordable housing, medical and hospitality businesses, as well as recreational and educational uses. Goals of the project include general plan designation change, and the construction of senior and affordable house, medical and hospitality businesses, and retail locations. This project is subject to the California Environmental Quality Act (CEQA) and the City of Morgan Hill is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Morgan Hill.

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Courtney Montgomery
Archaeologist

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December 30, 2019

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024

Subject: Cultural Resources Study for the Cochrane-Morgan Hill Retail Venture Project, Morgan Hill, Santa Clara County, California

Dear Chairperson Sayers,

Rincon Consultants, Inc. (Rincon) has been retained by the City of Morgan Hill to conduct a cultural resources study for the Cochrane-Morgan Hill Retail Project (project) located in the City of Morgan Hill. The proposed project involves a General Plan update to include senior and affordable housing, medical and hospitality businesses, as well as recreational and educational uses. Goals of the project include general plan designation change, and the construction of senior and affordable house, medical and hospitality businesses, and retail locations. This project is subject to the California Environmental Quality Act (CEQA) and the City of Morgan Hill is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Morgan Hill.

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If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (559) 228-9925, extension 3005, or at cmontgomery@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

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Courtney Montgomery
Archaeologist

Enclosed: Project Location Map



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December 30, 2019

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546

Subject: Cultural Resources Study for the Cochrane-Morgan Hill Retail Venture Project, Morgan Hill, Santa Clara County, California

Dear Chairperson Arellano,

Rincon Consultants, Inc. (Rincon) has been retained by the City of Morgan Hill to conduct a cultural resources study for the Cochrane-Morgan Hill Retail Project (project) located in the City of Morgan Hill. The proposed project involves a General Plan update to include senior and affordable housing, medical and hospitality businesses, as well as recreational and educational uses. Goals of the project include general plan designation change, and the construction of senior and affordable house, medical and hospitality businesses, and retail locations. This project is subject to the California Environmental Quality Act (CEQA) and the City of Morgan Hill is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Morgan Hill.

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If you have knowledge of cultural resources that may exist within or near the project site that you wish to be documented in our report, please contact me at (559) 228-9925, extension, 3005, or at cmontgomery@rinconconsultants.com. Thank you for your assistance.

Sincerely,
Rincon Consultants, Inc.

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Courtney Montgomery
Archaeologist

Enclosed: Project Location Map



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December 30, 2019

The Ohlone Indian Tribe
Andrew Galvan, Chairperson
P.O. Box 3388
Fremont, CA, 94539

Subject: Cultural Resources Study for the Cochrane-Morgan Hill Retail Venture Project, Morgan Hill, Santa Clara County, California

Dear Chairperson Galvan,

Rincon Consultants, Inc. (Rincon) has been retained by the City of Morgan Hill to conduct a cultural resources study for the Cochrane-Morgan Hill Retail Project (project) located in the City of Morgan Hill. The proposed project involves a General Plan update to include senior and affordable housing, medical and hospitality businesses, as well as recreational and educational uses. Goals of the project include general plan designation change, and the construction of senior and affordable house, medical and hospitality businesses, and retail locations. This project is subject to the California Environmental Quality Act (CEQA) and the City of Morgan Hill is the lead agency. This letter is intended as informal outreach only; consultation under California Assembly Bill 52 of 2014 will be carried out separately by the City of Morgan Hill.

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Sincerely,
Rincon Consultants, Inc.

A handwritten signature in blue ink, appearing to read "Courtney Montgomery", is written over a light blue horizontal line.

Courtney Montgomery
Archaeologist

Enclosed: Project Location Map

Appendix EN

Construction and Operational Energy Consumption

Cochrane Commons Phase II - Phase 1

Last Updated: 1/28/2022

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529
--------------	--------	----------------------	--------

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT						
Construction Equipment	#	Hours per		Load		Fuel Used (gallons)
		Day	Horsepower	Factor	Construction Phase	
Rubber Tired Dozers	3	8	247	0.4	Site Preparation Phase	6,517.64
Tractors/Loaders/Backhoes	4	8	97	0.37	Site Preparation Phase	3,509.46
Excavators	1	8	158	0.38	Grading Phase	1,345.63
Graders	1	8	187	0.41	Grading Phase	1,718.34
Rubber Tired Dozers	1	8	247	0.4	Grading Phase	2,214.33
Tractors/Loaders/Backhoes	3	8	97	0.37	Grading Phase	2,682.71
Cranes	1	7	231	0.29	Building Construction Phase	14,872.30
Forklifts	3	8	89	0.2	Building Construction Phase	15,062.45
Generator Sets	1	8	84	0.74	Building Construction Phase	17,533.36
Tractors/Loaders/Backhoes	3	7	97	0.37	Building Construction Phase	26,574.00
Welders	1	8	46	0.45	Building Construction Phase	5,838.81
Air Compressors	1	6	78	0.48	Architectural Coating Phase	7,920.48
Pavers	2	8	130	0.42	Paving Phase	2,447.41
Paving Equipment	2	8	132	0.36	Paving Phase	2,130.06
Rollers	2	8	80	0.38	Paving Phase	1,514.89
Total Fuel Used						111,881.88
						(Gallons)

Construction Phase	Days of Operation
Site Preparation Phase	52
Grading Phase	53
Building Construction Phase	600
Paving Phase	53
Architectural Coating Phase	600
Total Days	1358

WORKER TRIPS				
Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.1	18	10.8	419.45
Grading Phase	24.1	15	10.8	356.27
Building Construction Phase	24.1	86	10.8	23123.65
Paving Phase	24.1	15	10.8	356.27
Architectural Coating Phase	24.1	17	10.8	4570.95
Total				28,826.59

HAULING AND VENDOR TRIPS				
Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	0	20.0	0.00
Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
Total				-
VENDOR TRIPS				
Site Preparation Phase	7.5	0	7.3	0.00
Grading Phase	7.5	0	7.3	0.00
Building Construction Phase	7.5	16	7.3	9344.00
Paving Phase	7.5	0	7.3	0.00
Architectural Coating Phase	7.5	0	7.3	0.00
Total				9,344.00

Total Gasoline Consumption (gallons)	28,826.59
Total Diesel Consumption (gallons)	121,225.88

Sources:

[1] United States Environmental Protection Agency. 2021. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2*. September. Available at: <https://www.epa.gov/system/files/documents/2021-08/420r21021.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2021. *National Transportation Statistics*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Cochrane Commons Phase II - Phase 2

Last Updated: 1/28/2022

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529
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Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT						
Construction Equipment	#	Hours per		Load		Fuel Used (gallons)
		Day	Horsepower	Factor	Construction Phase	
Rubber Tired Dozers	3	8	247	0.4	Site Preparation Phase	6,642.98
Tractors/Loaders/Backhoes	4	8	97	0.37	Site Preparation Phase	3,576.95
Excavators	2	8	158	0.38	Grading Phase	2,691.26
Graders	1	8	187	0.41	Grading Phase	1,718.34
Rubber Tired Dozers	1	8	247	0.4	Grading Phase	2,214.33
Scrapers	2	8	367	0.48	Grading Phase	7,896.27
Tractors/Loaders/Backhoes	2	8	97	0.37	Grading Phase	1,788.47
Cranes	1	7	231	0.29	Building Construction Phase	3,866.80
Forklifts	3	8	89	0.2	Building Construction Phase	3,916.24
Generator Sets	1	8	84	0.74	Building Construction Phase	4,558.67
Tractors/Loaders/Backhoes	3	7	97	0.37	Building Construction Phase	6,909.24
Welders	1	8	46	0.45	Building Construction Phase	1,518.09
Air Compressors	1	6	78	0.48	Architectural Coating Phase	2,059.32
Pavers	2	8	130	0.42	Paving Phase	1,246.80
Paving Equipment	2	8	132	0.36	Paving Phase	1,085.12
Rollers	2	8	80	0.38	Paving Phase	771.74
Total Fuel Used						52,460.62 (Gallons)

Construction Phase	Days of Operation
Site Preparation Phase	53
Grading Phase	53
Building Construction Phase	156
Paving Phase	27
Architectural Coating Phase	156
Total Days	445

WORKER TRIPS				
Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.1	18	10.8	427.52
Grading Phase	24.1	20	10.8	475.02
Building Construction Phase	24.1	357	10.8	24957.41
Paving Phase	24.1	15	10.8	181.49
Architectural Coating Phase	24.1	71	10.8	4963.52
Total				31,004.96

HAULING AND VENDOR TRIPS				
Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	0	20.0	0.00
Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
Total				-
VENDOR TRIPS				
Site Preparation Phase	7.5	0	7.3	0.00
Grading Phase	7.5	0	7.3	0.00
Building Construction Phase	7.5	71	7.3	10780.64
Paving Phase	7.5	0	7.3	0.00
Architectural Coating Phase	7.5	0	7.3	0.00
Total				10,780.64

Total Gasoline Consumption (gallons)	31,004.96
Total Diesel Consumption (gallons)	63,241.26

Sources:

[1] United States Environmental Protection Agency. 2021. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2*. September. Available at: <https://www.epa.gov/system/files/documents/2021-08/420r21021.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2021. *National Transportation Statistics*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Cochrane Commons Phase II - Phase 3

Last Updated: 1/28/2022

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529
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Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT						
Construction Equipment	#	Hours per		Load		Fuel Used (gallons)
		Day	Horsepower	Factor	Construction Phase	
Rubber Tired Dozers	3	8	247	0.4	Site Preparation Phase	6,517.64
Tractors/Loaders/Backhoes	4	8	97	0.37	Site Preparation Phase	3,509.46
Excavators	1	8	158	0.38	Grading Phase	1,371.02
Graders	1	8	187	0.41	Grading Phase	1,750.77
Rubber Tired Dozers	1	8	247	0.4	Grading Phase	2,256.11
Tractors/Loaders/Backhoes	3	8	97	0.37	Grading Phase	2,733.33
Cranes	1	7	231	0.29	Building Construction Phase	3,247.12
Forklifts	3	8	89	0.2	Building Construction Phase	3,288.63
Generator Sets	1	8	84	0.74	Building Construction Phase	3,828.12
Tractors/Loaders/Backhoes	3	7	97	0.37	Building Construction Phase	5,801.99
Welders	1	8	46	0.45	Building Construction Phase	1,274.81
Air Compressors	1	6	78	0.48	Architectural Coating Phase	1,729.30
Pavers	2	8	130	0.42	Paving Phase	2,401.24
Paving Equipment	2	8	132	0.36	Paving Phase	2,089.87
Rollers	2	8	80	0.38	Paving Phase	1,486.31
Total Fuel Used						43,285.70 (Gallons)

Construction Phase	Days of Operation
Site Preparation Phase	52
Grading Phase	54
Building Construction Phase	131
Paving Phase	52
Architectural Coating Phase	131
Total Days	420

WORKER TRIPS				
Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.1	18	10.8	419.45
Grading Phase	24.1	15	10.8	362.99
Building Construction Phase	24.1	201	10.8	11799.78
Paving Phase	24.1	15	10.8	349.54
Architectural Coating Phase	24.1	40	10.8	2348.22
Total				15,279.98

HAULING AND VENDOR TRIPS				
Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Site Preparation Phase	7.5	0	20.0	0.00
Grading Phase	7.5	0	20.0	0.00
Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Architectural Coating Phase	7.5	0	20.0	0.00
Total				-
VENDOR TRIPS				
Site Preparation Phase	7.5	0	7.3	0.00
Grading Phase	7.5	0	7.3	0.00
Building Construction Phase	7.5	84	7.3	10710.56
Paving Phase	7.5	0	7.3	0.00
Architectural Coating Phase	7.5	0	7.3	0.00
Total				10,710.56

Total Gasoline Consumption (gallons)	15,279.98
Total Diesel Consumption (gallons)	53,996.26

Sources:

[1] United States Environmental Protection Agency. 2021. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2*. September. Available at: <https://www.epa.gov/system/files/documents/2021-08/420r21021.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2021. *National Transportation Statistics*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Cochrane Commons Phase II

Last Updated: 1/28/2022

Populate one of the following tables (Leave the other blank):

Annual VMT	OR	Daily Vehicle Trips
Annual VMT: 18,916,438		Daily Vehicle Trips: Average Trip Distance:

Fleet Class	Fleet Mix	Fuel Economy (MPG) [1]	
Light Duty Auto (LDA)	0.553893	Passenger Vehicles	24.1
Light Duty Truck 1 (LDT1)	0.058700	Light-Med Duty Trucks	17.6
Light Duty Truck 2 (LDT2)	0.188468	Heavy Trucks/Other	7.5
Medium Duty Vehicle (MDV)	0.120786	Motorcycles	44
Light Heavy Duty 1 (LHD1)	0.022796		
Light Heavy Duty 2 (LHD2)	0.005663		
Medium Heavy Duty (MHD)	0.010629		
Heavy Heavy Duty (HHD)	0.007566		
Other Bus (OBUS)	0.000983		
Urban Bus (UBUS)	0.000556		
Motorcycle (MCY)	0.026354		
School Bus (SBUS)	0.000841		
Motorhome (MH)	0.002820		

Fleet Mix					
Vehicle Type	Percent	Fuel Type	Annual VMT: VMT	Vehicle Trips: VMT	Fuel Consumption (Gallons)
Passenger Vehicles	55.39%	Gasoline	10477683	0.00	434,759
Light-Medium Duty Trucks	36.80%	Gasoline	6960379	0.00	395,476
Heavy Trucks/Other	5.19%	Diesel	980893	0.00	130,786
Motorcycle	2.64%	Gasoline	498524	0.00	11,330

Total Gasoline Consumption (gallons)	841,565
Total Diesel Consumption (gallons)	130,786

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2021. National Transportation Statistics. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Equipment	Horsepower	Load Factor
Aerial Lifts	63	0.31
Air Compressors	78	0.48
Bore/Drill Rigs	221	0.5
Cement and Mortar Mixers	9	0.56
Concrete/Industrial Saws	81	0.73
Cranes	231	0.29
Crawler Tractors	212	0.43
Crushing/Proc. Equipment	85	0.78
Excavators	158	0.38
Forklifts	89	0.2
Generator Sets	84	0.74
Graders	187	0.41
Off-Highway Tractors	124	0.44
Off-Highway Trucks	402	0.38
Other Construction Equipment	172	0.42
Other General Industrial Equipment	88	0.34
Other Material Handling Equipment	168	0.4
Pavers	130	0.42
Paving Equipment	132	0.36
Plate Compactors	8	0.43
Pressure Washers	13	0.3
Pumps	84	0.74
Rollers	80	0.38
Rough Terrain Forklifts	100	0.4
Rubber Tired Dozers	247	0.4
Rubber Tired Loaders	203	0.36
Scrapers	367	0.48
Signal Boards	6	0.82
Skid Steer Loaders	65	0.37
Surfacing Equipment	263	0.3
Sweepers/Scrubbers	64	0.46
Tractors/Loaders/Backhoes	97	0.37
Trenchers	78	0.5
Welders	46	0.45

Appendix WSA

Water Supply Assessment



Cochrane Commons Phase II Project

Water Supply Assessment

prepared by
City of Morgan Hill
17575 Peak Avenue
Morgan Hill, California 95037
Contact: Jennifer Carman, Development Services Director

prepared with the assistance of
Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

April 2022



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

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Acronyms

AF	Acre-feet
AFY	Acre-feet per year
CEQA	California Environmental Quality Act
CVP	Central Valley Project
EIR	Environmental Impact Report
GSA	Groundwater Sustainability Agency
GMP	Groundwater Management Plan
IRWM	Integrated Regional Water Management
MGD	Million gallons per day
MUF	Mixed-Use Flex zoning designation
PFAS	Per- and polyfluoroalkyl substances
SFPUC	San Francisco Public Utilities Commission
SEIR	Supplemental Environmental Impact Report
SGMA	Sustainable Groundwater Management Act
SWP	State Water Project
TDS	Total Dissolved Solids
UGB	Urban Growth Boundary
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment
WSMP	Water Supply Master Plan

1 Introduction

In 2001, California adopted Senate Bill (SB) 610, which amended California Water Code to require detailed analysis of water supply availability for certain types of development projects. The primary purpose of SB 610 is to improve the linkage between water availability and land use planning by ensuring greater communication between water providers and local planning agencies and ensuring that land use decisions for large development projects are fully informed as to whether sufficient water supplies are available to meet project demands. Certain types of development projects are required to provide detailed water supply assessments to planning agencies. Any proposed project which is subject to the California Environmental Quality Act (CEQA) and would demand more than 75 acre-feet per year (AFY) of water, or an amount of water equivalent to, or greater than, the amount of water required by a residential development with 500 or more dwelling units, is subject to SB 610 and is required to prepare a Water Supply Assessment (WSA).

This WSA has been prepared for a development project (“proposed project”) that meets the threshold requirements for a WSA as defined in SB 610. The project details are discussed in Section 2, *Project Description*; this discussion includes calculation of the water supply needs of the proposed project. The applicability of SB 610 to the proposed project is determined in Section 3, *Senate Bill 610 Applicability*, where it is illustrated that the proposed project requires an WSA. An analysis of the sources and management of the water supply that would be necessary for implementation of the proposed project is included in Section 4, *Water Supply Overview*, and a discussion and analysis of the reliability of those supplies, including under future conditions of reduced supply due to drought, is included in Section 5, *Water Supply Reliability*.

SB 610 requires a WSA to characterize water supply availability over a 20-year projection; this WSA assumes the proposed project would begin operation in 2023, such that the 20-year projection for the purposes of the WSA would end in 2043. However, the primary planning documents that inform this analysis, which include the City’s UWMP and WSMP, as well as Valley Water’s UWMP and Groundwater Management Plan (GWMP), generally address planning horizons through 2045. Therefore, this WSA extends beyond the timeframe required by SB 610.

As discussed below, this WSA has been prepared to inform decisions from project applicants, local and regional agencies, and the public about the availability of a water supply to support the proposed project in the decades to come after implementation. This document is not intended to address any CEQA impact issues; those issues are discussed in other environmental documents for the proposed project. Rather, this document is intended to provide a baseline analysis of the water supplies available to the project and of its impact upon those supplies.

1.1 Project Background

The proposed project is defined in detail in Section 2, *Project Description*, and consists of changes to a previously approved project. In 2005, an Environmental Impact Report (EIR) was prepared for the Cochrane Commons Project, and certified by the City of Morgan Hill as the CEQA lead agency. The 2005 Cochrane Commons Project consisted of two phases referred to as Phase I and Phase II, which collectively included development of 590,100 square feet of retail space, a 12-pump gas station, and a 63,200-square-foot movie theatre; no residential development was included in the 2005 project.

Construction of Phase I of the approved Cochrane Commons Project was completed in 2007 and consisted of 262,560 square feet of commercial retail space. Two commercial structures were also constructed on the eastern portion of the project site within the Phase II area and are currently occupied by a gas station and fast-food restaurant. In total, 303,429 square feet of retail space has been constructed, along with the gas station. Construction of Phase II of the approved project has not occurred, and since certification of the 2005 EIR, Phase II has been revised, as addressed herein.

The proposed project includes a revised version of the previously approved Phase II of the Cochrane Commons Project. As currently proposed, Phase II consists of more residential and less commercial space than previously approved, as well as a zoning change to accommodate the increased residential use. As discussed below in Section 3, *Senate Bill 610 Applicability*, this WSA is being prepared because the current Phase II meets water demand thresholds that were not met by the previously approved Phase II.

Aspects of the previously approved Cochrane Commons Project, including the fully-constructed Phase I, have been accounted for and incorporated into long-range planning efforts by the City of Morgan Hill and relevant agencies, such as, but not limited to, the Santa Clara Valley Water District (Valley Water). This WSA identifies where previous estimates of the project's water use have been included in planning documents, and discusses changes between water demands for the previously approved project compared to the currently proposed Phase II. Table 1 below provides an overview of the current Phase II compared to the previously approved Phase II.

Table 1 Changes to Phase II of the Previously Approved Cochran Commons Project

Project Component	Previously Approved Phase II	Currently Proposed Phase II
Residential	None	+498 dwelling units (Phase II)
Hotel	None	+140 rooms (Phase II)
Retail	657,250 square feet (Phase I and II)	-259,690 square feet (Phase I and II)

As shown above, the revised Phase II as assessed herein includes 498 new residential dwelling units and 140 additional hotel rooms that were not included under the previously approved project; the water demands associated with these project changes are assessed herein with respect to long-term water supply availability and reliability.

2 Project Description

The City of Morgan Hill proposes to implement Phase II of the previously approved Cochrane Commons Project; Phase I of the previously approved project has been constructed and is currently operational. The proposed project consists of revisions to the previously approved Phase II that was analyzed in the 2005 EIR. The proposed project includes: 498 residential units, consisting of a mix of homes, townhomes, condos, and apartments; 135,000 square feet of retail space; a 140-room hotel; and amending the zoning and General Plan designation to Mixed Use Flex ([MUF] which approves 7 to 24 dwelling units per acre) for the entire Phase II development area, which is defined in Section 2.1, *Project Location*, below. The residential uses would be located in the northern and middle portion of the project site and the hotel and commercial retail would be located in the southern portion. The project would also provide various on-site amenities for residents, including a courtyard with outdoor open space, as well as a clubhouse, recreation hall, and swimming pool for on-site residents.

2.1 Project Location

The project site is located at the southwest corner of Mission View Drive and Cochrane Road in the City of Morgan Hill. The site is approximately 33.5 acres and is located just north of Phase I of the Cochrane Commons Project. It is bounded by Depaul Drive to the south, Cochrane Road to the east, Mission View Drive to the north, and adjacent agriculture, single-family residential, and industrial development to the west. The site is located on the northern edge of the City of Morgan Hill and is approximately 800 feet north of U.S. Highway 101 (U.S. 101). Figure 1 shows the regional location and Figure 2 depicts the proposed project site.

2.2 Existing Site Characteristics

The project area is urbanized area and generally flat. There is a gas station and a fast food restaurant in the southern portion of the site. In addition, the central and southern areas of the site are developed with parking lots, roadways, and paved areas, as shown in Figure 2. The remainder of the site is undeveloped.

2.2.1 Current Land Use Designation and Zoning

The project site is currently split between two City of Morgan Hill 2035 General Plan land use designations, MUF and Commercial. The Commercial designation allows a wide range of business uses either in stand-alone buildings or as part of shopping centers. The MUF designation allows for a mix of residential, commercial, and office uses, with 7 to 24 dwelling units per acre (Morgan Hill 2016). The proposed change of the Commercial-designated area of the project site to MUF would be required for implementation of the project's residential component. The project site is zoned as Highway Commercial (CH), which seeks to provide areas adjacent to the freeway that can accommodate highway and tourist-oriented uses, and allows business services, restaurants and cafes, hotels, offices, retail services, and other related facilities (Morgan Hill 2016).

2.2.2 Surrounding Land Uses

The project site is bordered by a commercial development to the west, South Almont Drive to the east, Wilshire Boulevard to the north, and an unnamed alley to the south. There is a six-story retail and office building immediately to the west of the project site, a three-story office building to the east across South Almont Drive, a three-story office building to the north across Wilshire Boulevard, and a single-family home to the south of the alley.

Surrounding development includes detached single-family houses to the north, senior living apartments to the east, commercial retail within Phase I of the Cochrane Commons Project to the south, and single-family and industrial structures within agricultural operations to the west. Buildings range in height from one to two stories.

2.3 Proposed Project Characteristics

The project would involve construction of Phase II of the Cochrane Commons Project on the undeveloped site adjacent to the completed Phase I and would consist of 498 residential units; 135,000 square feet of retail space; a 140-room hotel; and amending the zoning and General Plan designation to MUF for the proposed project development area. Table 2 details the breakdown of proposed uses and square footage.

Table 2 Project Details

Project Component	Size or Unit Amount
Residential	
Townhomes/Apartments	498
Commercial	
Hotel	140 rooms
Retail	135,000 square feet

The project area has been previously graded and would further be modified by additional grading. Stormwater drainage would be directed to catch basins located throughout the project site and then conveyed via underground storm drainage pipes to a stormwater detention pond along the northern project boundary, where it would be temporarily stored in the planned detention pond and pumped to the adjacent Cochrane Channel. The project would also involve new landscaping elements and construction of new driveways and central roadways.

Construction would occur over three phases. Phase 1 would consist of 104 units (175,000 square feet) of for-sale townhomes. Phase II would consist of 394 units (410,000 square feet) of rental apartments. Phase 3 would consist of the retail space and hotel. The first two phases are expected to last approximately one year each, and the third phase to last for approximately eight months. Construction would include 37,510 cubic yards of excavation, with balanced cut and fill anticipated.

Figure 2 Proposed Project Site Location



2.4 Water Demands

The water demand calculations in this WSA are based upon water use factors utilized by the California Emissions Estimator Model (CalEEMod) modeling software; CalEEMod is a standard software package utilized for environmental analysis throughout the State. The water use factors are average values from data throughout the State and are often independent of use type (i.e. single- vs multi-family home). Table 3 shows the proposed project's total projected water demand based on the standard assumptions utilized by CalEEMod, and adjusted to account for water demands of the previously approved Phase II, as those demands are already accounted for in the City's 2016 General Plan, zoning, and land use designations, as well as the City's UWMP. Therefore, the "Total New Water Demand" reflects only the amount of water that is in addition to the amount of water associated with operation of the previous Phase II components which are not included under the project.

Table 3 Operational Water Demand for the Proposed Project

Water Demand Type	Size	Water Use Factor ¹ (annual)	Water Demand (AFY)
Residential	498 units	106,229 gal/unit	162
Retail	135,000 sf	119 gal/sf	49
Hotel Rooms	140 units	28,186 gal/unit	12
Total Operational Demand²			223
<i>Previously assessed retail³</i>	<i>-259,690 sf</i>	<i>119 gal/ sf</i>	<i>-95</i>
Total New Water Demand			128

1. CalEEMod provided the water use factors used to calculate water demands
2. This total demand assumes the project is fully operational during the first year; this is an over-estimation of the project's operational water demands in the first few years, because the project would actually be constructed over an approximately three-year period, with water demands correlating with when individual land uses are brought online. For example, water demands for residential would equate to 34 acre-feet at the end of the first year for the first 104 units, while residential demands would reach 162 acre-feet by the end of the second year for the next 394 units, reaching the design total of 498 new residential units, with an associated water demand of 162 FY.
3. Previously assessed retail refers to those portions of the approved Cochrane Commons Project consisting of Phase II as assessed in the 2005 EIR, that were never constructed and are not included in the proposed project as assessed herein, although the associated water demands are accounted for in City planning documents including the General Plan and UWMP.

As shown above, the total new water demand that would be introduced by operation of the proposed project is approximately 129 AFY.

3 Senate Bill 610 Applicability

Water requirements associated with the project are described in Section 2.4. The applicability of SB 610 to the proposed project is discussed in the following sections.

California Water Code, as amended by SB 610, requires a WSA to address the following questions:

- Is there a public water system that will service the proposed project? (see Section 3.3)
- Is there a current Urban Water Management Plan (UWMP) that accounts for the project demand? (see Section 3.4)
- Is groundwater a component of the supplies for the project? (see Section 3.5)
- Are there sufficient supplies to serve the project over the next twenty years? (see Section 3.6)

The primary question to be answered in a WSA is:

Will the total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection meet the projected water demand of the proposed project, in addition to existing and planned future uses of the identified water supplies, including agricultural and manufacturing uses?

The following sections address the SB 610 WSA questions as they relate to the proposed project.

3.1 Is the Proposed Project Subject to CEQA?

California Water Code Section 10910(a) states that any city or county that determines a project (as defined in Section 10912) is subject to CEQA shall comply with Section 10910 of the California Water Code. The proposed project requires multiple discretionary approvals from the City of Morgan Hill including updates to the General Plan land use designation and zoning and certification of an SEIR analyzing the changes to the proposed project since certification of the original EIR. Therefore, the project is subject to CEQA.

3.2 Is the Proposed Project a “Project” Under SB 610?

California Water Code Section 10912(a) states that any proposed action which meets the definition of “project” under SB 610 is required to be analyzed in a WSA. SB 610 defines a “project” as any one of seven different development types, each of which is considered below.

3.2.1 Residential Development

A proposed residential development of more than 500 dwelling units is defined as a “project” under SB 610. Buildout of the proposed project would create 498 additional residential units.

3.2.2 Shopping Center or Business Establishment

A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space is defined as a “project” under SB 610. The proposed project would introduce 135,000 square feet of commercial and retail area.

3.2.3 Commercial Office Building

A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space is defined as a “project” under SB 610. The proposed project does not include any component specifically proposed as commercial office space and therefore does not classify as a project based on commercial office development.

3.2.4 Hotel or Motel

A proposed hotel or motel, or both, having more than 500 rooms is defined as a “project” under SB 610. The proposed project would introduce 140 new hotel rooms.

3.2.5 Industrial, Manufacturing, or Processing Plant or Industrial Park

A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area is defined as a “project” under SB 610. The proposed project does not include the proposed development of an industrial, manufacturing, or processing plant, or an industrial park and therefore does not classify as a project based on industrial development.

3.2.6 Mixed-Use Project

A proposed mixed-use project that includes one or more of the projects specified earlier is defined as a “project” under SB 610. The proposed project is a mixed-use residential, business, and hotel project, however none of the components individually count as a “project” under SB 610 and therefore the proposed project does not classify as a mixed-use project including one or more previously defined projects.

3.2.7 Equivalent Project

Any proposed use, regardless of type, which would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project is defined as a “project” under SB 610. As detailed in Section 2.4, the proposed project has an estimated water demand of 223 AFY as proposed (129 AFY over the previously approved Phase II plans) and includes residential, business, and hotel uses. Combined, the projected water demand of the proposed uses is equivalent to 684 dwelling units, therefore the proposed project is classified as a project under SB 610 and is required to prepare this WSA.

3.3 Is There a Public Water System that Will Serve the Proposed Project?

California Water Code Section 10912(c) defines a “public water system” as a system that has 3,000 or more service connections and provides piped water to the public for human consumption. The project area lies within the service area of the City of Morgan Hill Water Division (City). The City has more than 3,000 connections (Morgan Hill 2021a) and is therefore a public water system.

3.4 Is There a Current UWMP that Accounts for the Project Demand?

In California, every urban water supplier (publicly or privately owned) that delivers more than 3,000 AFY of water annually or serves more than 3,000 connections is required to prepare an UWMP to assess, among other metrics, the reliability of the supplier's water sources over a 20-year period, and including with consideration to normal water-year, single-dry water-year (periodic drought), and multiple-dry water-year (sustained drought) scenarios. These are the same requirements of a WSA, as specified by SB 610, and therefore UWMPs, when available for the subject area, are used to inform project-specific WSAs. UWMPs must be updated and submitted to the California Department of Water Resources (DWR) every five years for review and approval, and are publicly available for review (DWR 2020).

The proposed project is located within the service territory of the City of Morgan Hill, and water demands associated with development on the project site are addressed in the City's 2020 UWMP. The City's 2020 UWMP includes water supply availability and reliability projections through year 2045, and accounts for current zoning of the project site as reflected in the 2016 General Plan. However, the proposed project would change part of the planned zoning of the Phase II site from that which was used to inform the UWMP. The potential water demands associated with build-out of the Phase II site under the zoning revision proposed under Phase II are higher than currently assumed in the City's UWMP. Therefore, the current UWMP does not fully account for water demands that would be introduced to the Phase II site under the proposed project.

However, the City's 2020 UWMP relies on water demand projections provided in the City's Water System Master Plan (WSMP), which was originally published in 2017 and relied upon land use and population projections provided in the City's 2016 General Plan; the WSMP was updated in 2021, after the 2020 UWMP was finalized, and therefore this analysis utilizes the updated projections in the 2021 WSMP, where they differ from the 2017 WSMP (Morgan Hill 2016, 2020, 2021).

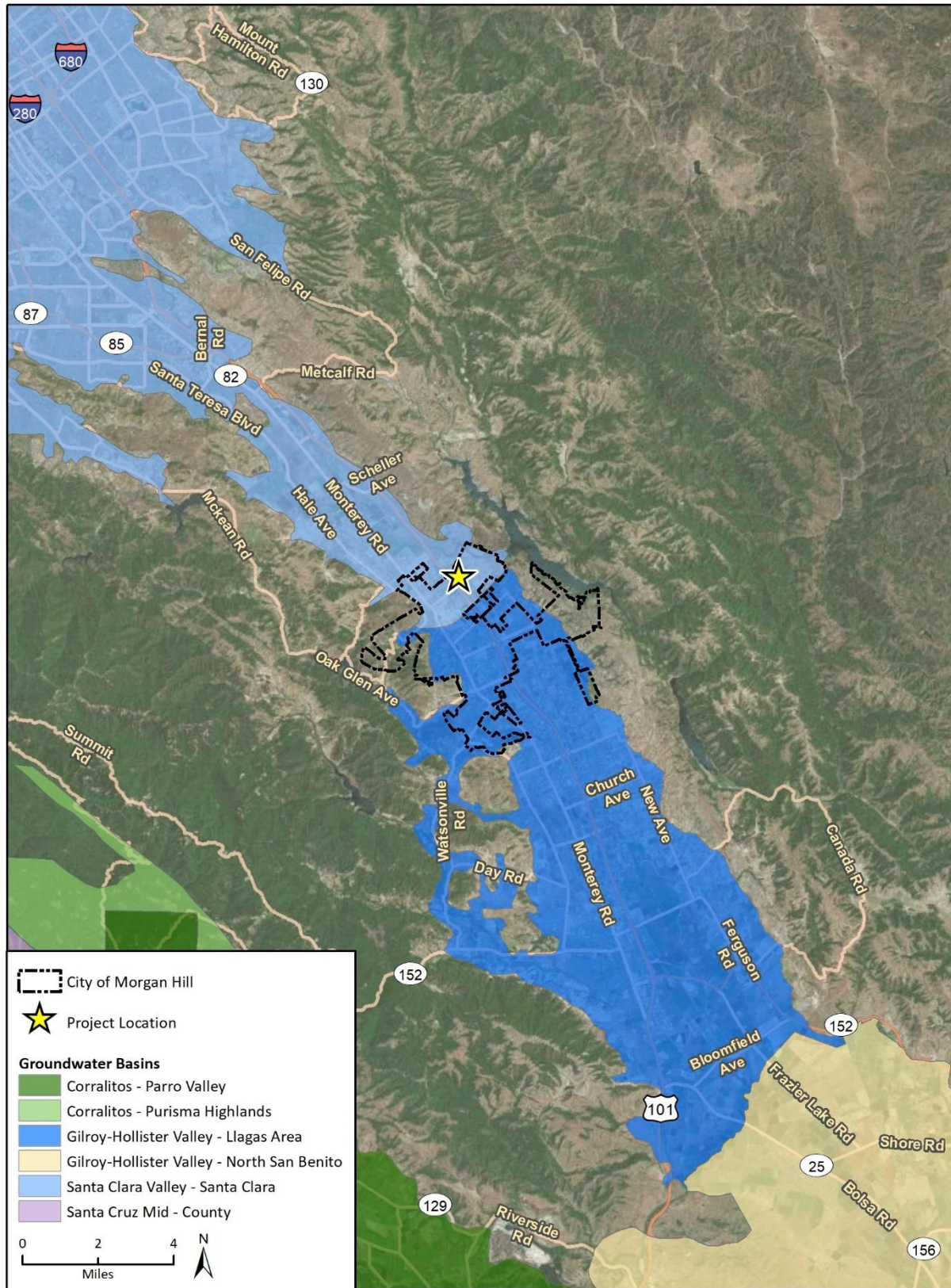
3.5 Is Groundwater a Component of the Supplies for the Project?

All water supply for the proposed project would be provided by the City of Morgan Hill, which relies entirely local groundwater produced from the Llagas Subbasin of the Gilroy-Hollister Groundwater Basin, and the Santa Clara Subbasin (Coyote Valley Subarea) of the Santa Clara Valley Groundwater Basin. There is no surface or recycled water use in the city and it does not purchase imported water from a wholesaler. The city's location relative to these groundwater basins is depicted in Figure 3, while Figure 4 provides a localized view of the Phase II site over the Santa Clara Subbasin.

3.6 Are There Sufficient Supplies to Serve the Project Over the Next Twenty Years?

The sufficiency of water supplies identified as potential sources to serve the growth facilitated by the proposed project is assessed in the following sections, which address existing and potential future supplies. Water supply sources available in the project area are described in Section 4, *Water Supply Overview*, and water supply reliability is discussed in Section 5, *Water Supply Reliability*.

Figure 3 Regional Groundwater Basin Boundaries



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Fig. 3 Regional Groundwater Basins

Figure 4 Local Groundwater Basin Boundaries



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Additional data provided by CWDR, 2020.

Fig. K Regional Groundwater Basins

4 Water Supply Overview

The City of Morgan Hill relies entirely on locally-pumped groundwater supplies to meet the needs of its residents. The following sections examine the condition of the local groundwater as well as its overall availability to the city and the larger regional management structure. The region's water supplies are primarily managed by Valley Water, which is the imported water wholesaler for Santa Clara County overall. Valley Water also serves as the exclusive Groundwater Sustainability Agency (GSA) for both the Santa Clara Subbasin and the Llagas Subbasin, for compliance with the Sustainable Groundwater Management Act (SGMA); Section 4.2.1, *Groundwater Management*, provides detailed discussion of SGMA and other groundwater management efforts.

4.1 City of Morgan Hill Water Supply System

The City of Morgan Hill's water supply system provides water to both the incorporated city and its greater Urban Growth Boundary (UGB), which encompasses approximately 17,660 acres of varying land use types, including approximately 4,944 acres of residential, 2,192 acres of commercial, industrial, institutional, and landscape irrigation, and approximately 10,525 acres of other non-demand generating land-use types such as open space (Morgan Hill 2021a).

The city's municipal water system consists of 16 active groundwater wells and more than 187 miles of pipelines. The water distribution system is comprised of 21 pressure zones, with 12 storage tanks regulating system operation through the pressure zones and 13 booster stations serving to pump water from lower pressure to higher pressure zones. The current total tested system supply capacity is approximately 16.16 million gallons per day (MGD), and the firm capacity is approximately 12.63 MGD (where the "firm capacity" assumes the city's two largest supply wells are not functioning, causing the overall system to operate under stress conditions). The city's average domestic daily water demand is approximately seven MGD (Morgan Hill 2021).

The City of Morgan Hill does not purchase imported surface water supplies from Valley Water, and does not directly consume surface or recycled water as part of its water supply; however, the groundwater basins from which it withdraws water are kept in sustainable condition through the management actions of Valley Water, which serves as the GSA for both the Llagas and the Santa Clara Subbasins. The City's current Capital Improvement Program includes six new groundwater wells within the UGB through year 2045, in order to meet the increasing water demands associated with population and usage projections (Valley Water 2021b).

4.2 Local Groundwater Resources

The City of Morgan Hill relies entirely upon locally pumped groundwater for its water supply, and does not utilize any surface water supply, recycled water, or purchase any imported water (Morgan Hill 2021a). However, although the City does not purchase any imported water directly, the groundwater basins from which the City extracts water are managed by Valley Water, which does use imported water to recharge and replenish the groundwater supply. Therefore, a discussion of Valley Water's supply system is provided under Section 4.1, *Valley Water Supply System*, as it is relevant to long-term water supply availability in the basins that provide the city's water.

The city overlies the southeastern portion of the Santa Clara Subbasin of the Santa Clara Valley Groundwater Basin, as shown on Figure 3 and Figure 4. This portion of the Santa Clara Subbasin is referred to as the Coyote Valley Subarea, discussed further below. The City pumps its water supply from the Santa Clara Subbasin as well as the Llagas Subbasin of the Gilroy-Hollister Valley Groundwater Basin, which is adjacent to the south of the Santa Clara Subbasin. As shown in Figure 3, the Llagas Subbasin is adjacent to the North San Benito Subbasin, also of the Gilroy-Hollister Valley Groundwater Basin.

Santa Clara Subbasin, Santa Clara Valley Groundwater Basin

The Santa Clara Subbasin is identified as a high-priority basin by DWR but is not considered to be in critical overdraft conditions (DWR 2022). Groundwater levels declined during the 2012-2016 drought but recovered and have remained fairly stable since (Valley Water 2021). In 2021 groundwater levels in the subbasin were about the same as the 5-year average (Morgan Hill 2021a). As mentioned, the project site overlies the Coyote Valley Subarea of the Santa Clara Valley Subbasin; the subarea is approximately seven miles long and two miles wide, between Metcalf Road and Cochrane Road over approximately 15 square miles. The City of Morgan Hill is the only incorporated city that pumps groundwater from the Coyote Valley Subarea, although numerous agricultural farms and unincorporated areas also pump from the subarea (Valley Water 2020).

Llagas Subbasin, Gilroy-Hollister Valley Groundwater Basin

The Llagas Subbasin is approximately 15 miles long, and ranges from three miles wide along its northern boundary with the Coyote Valley Subarea to approximately six miles wide along its southeastern boundary of the Pajaro River and the North San Benito Subbasin (also of the Gilroy-Hollister Valley Groundwater Basin). The Llagas Subbasin has confined and unconfined areas within its boundary. It is primarily drained by the Pajaro River and its tributaries including the Uvas and Llagas Creeks. Annual precipitation ranges from less than 16 inches in the south to 24 inches in the northern areas (DWR 2004b).

The Llagas Subbasin is identified as a high-priority basin by DWR but is not considered to be in critical overdraft (DWR 2022). Groundwater levels declined during the 2012-2016 drought but recovered and have remained fairly stable since (Valley Water 2021). In 2021, groundwater levels in the subbasin were about 13 feet below the 5-year average, likely resulting from 2020 pumping rates being higher than the 5-year average, while estimated recharge was below the 5-year average (Morgan Hill 2021a). Both the City of Morgan Hill and the City of Gilroy are reliant on water from the Llagas Subbasin, as are numerous 'Other Users' such as agricultural farms and unincorporated areas identified by Valley Water (Valley Water 2020).

4.2.1 Groundwater Management

In 2014, SGMA was signed into law and established a framework for local groundwater management, under which the DWR assigns priority levels to groundwater basins based on existing water balance conditions. Designated Groundwater Sustainability Agencies (GSAs) are then required to develop and implement Groundwater Sustainability Plans (GSPs) according to a schedule of prioritization specified by SGMA. The overall purpose of SGMA is to bring overdrafted basins into sustainable conditions.

As described above, the City of Morgan Hill overlies two groundwater subbasins; the Llagas Subbasin of the Gilroy-Hollister Groundwater Basin, and Santa Clara Subbasin (Coyote Valley Subarea) of the Santa Clara Valley Groundwater Basin. Both Subbasins were rated by DWR as "High

Priority” but not critically overdrafted (DWR 2022). SGMA requires that GSAs prepare a GSP for all medium and high priority basins; SGMA also allows specified Alternatives to a GSP, subject to approval of the DWR.

Valley Water is the exclusive GSA for both the Llagas and Santa Clara Subbasins, and is therefore responsible for managing both subbasins in sustainable condition, in accordance with a GSP or a DWR-approved Alternative GSP. Valley Water’s 2016 GWMP for the Santa Clara and Llagas Subbasins was submitted to DWR as an Alternative on Dec. 21, 2016. On July 17, 2019, DWR approved the Alternative for both subbasins, determining it satisfies the objectives of SGMA. SGMA also requires GSAs to submit periodic evaluations of approved Alternatives at least once every five years, with the first due by January 1, 2022. To meet this requirement, Valley Water prepared the 2021 GWMP, which was adopted by Valley Water’s Board of Directors on November 19, 2021, after a public hearing.

4.2.2 Groundwater in Storage

Table 4 shows estimated storage amounts from 2018-2019 in the two aquifers from Valley Water’s 2019 Annual Groundwater Report, which has not been updated since 2019 (Valley Water 2020). Although storage has increased due to increased recharge efforts by Valley Water, both subareas have low excess storage available to ensure water extraction remains sustainable without the input of imported recharge water from Valley Water. The ability of the Llagas and Santa Clara Valley Subbasins to support continued extraction is discussed further in Section 5, *Water Supply Reliability*.

Table 4 Estimated Groundwater in Storage

Groundwater Basin	Water in Storage (AF)		
	End of 2018	End of 2019	Change
Santa Clara Valley Subbasin (Coyote Valley Subarea), Santa Clara Valley Groundwater Basin	10,800	12,800	+2,000
Llagas Subbasin, Gilroy-Hollister Valley Groundwater Basin	21,300	28,200	+6,900
Total	32,100	41,000	+8,900

Source: Valley Water 2020

AF: Acre-feet

4.2.3 Groundwater Quality

The City monitors local groundwater quality at each of its supply wells, and Valley Water monitors overall quality throughout its management area, which includes the subbasins that the City pumps from. The following information is based primarily on the most recently issued 2019 Annual Groundwater Report from Valley Water (Valley Water 2020), which is also the source of quality information in the City UWMP (Morgan Hill 2021a). Overall, groundwater within the two subbasins is considered to be of good quality, with the exception of elevated levels of nitrate and total dissolved solids (TDS), as discussed below. Water quality testing indicates that groundwater met drinking water quality standards for most parameters at wells tested throughout Santa Clara County, largely due to the high quality of water imported by Valley Water and used to recharge the subbasins at its recharge facilities, including within Llagas Subbasin. Water at these facilities did not contain contaminants above primary or secondary drinking water standards, indicating that water entering the groundwater basins as recharge is already of high quality.

A summary of groundwater quality conditions is depicted in Table 5 below.

Table 5 Groundwater Quality Summary

Groundwater Basin	Quality Parameter	Concentration Range (mg/L)	Percentage of Wells with Stable Concentrations	Percentage of Wells with Decreasing Concentrations	Percentage of Wells with Increasing Concentrations
Coyote Valley	Nitrate (as N)	0.5 – 1.6	63	27	10
	TDS	256 – 1,640	96	0	4
Llagas Subbasin-- Shallow Aquifer	Nitrate (as N)	Not tested	76	12	12
	TDS	214 - 834	81	5	14
Llagas Subbasin Deep Aquifer	Nitrate (as N)	<0.4 – 4.6	61	30	9
	TDS	254 - 760	96	0	4

Source: Valley Water 2020

mg/L: milligrams per liter

As mentioned, nitrates and TDS affect groundwater quality in the area, and the groundwater management objectives for nitrate defined within Valley Water’s GWMP for the Santa Clara and Llagas Subbasins were not met in the 2019 report (Valley Water 2020). Nitrate was found at levels above regulatory standards in 23 percent of the wells analyzed by Valley Water and the City (Valley Water 2020; Morgan Hill 2021a). Nitrates occur naturally in the groundwater within the subbasins but is increased by anthropogenic inputs; primary sources of nitrate contamination are agricultural fertilizer runoff, along with septic tank leaching and leaking sewage lines and piping. Almost all of the wells sampled exhibited TDS concentrations below the drinking water standards and levels have not changed significantly compared to prior years (Valley Water 2020; Morgan Hill 2021a).

4.3 Santa Clara Valley Water District

The information in this section is primarily drawn from Valley Water’s 2020 UWMP (Valley Water 2021b) and its 2021 GWMP, which also serves as an Alternative GSP for the Llagas and Santa Clara Subbasins, in accordance with SGMA (Valley Water 2021c).

This section is also informed by information developed under the Integrated Regional Water Management (IRWM) Program, which provides funding to IRWM Groups for the development of IRWM Plans and the implementation of infrastructure improvements assessed therein. The purpose of an IRWM Plan is to provide long-term, coordinated water resource planning amongst as many stakeholders as possible, as well as to assist in obtaining state and federal funding for local programs by demonstrating that such programs have been discussed and agreed upon by a larger set of stakeholders than simply the local agency. Valley Water is a key stakeholder in the San Francisco Bay Area (“Bay Area”) IRWM Group, and seeks to secure funding for its infrastructure improvements through this involvement. The Bay Area’s most recent IRWM Plan was published in 2019 (San Francisco Bay Area IRWM Group 2019).

4.3.1 Imported Surface Water

Eight retailers in the northern part of Santa Clara County, including Valley Water, have contracts with the San Francisco Public Utilities Commission (SFPUC) to receive water from the SFPUC Regional Water System. Much of Valley Water’s water supply is imported water pumped out of the Sacramento-San Joaquin Delta (the Delta) and brought into Santa Clara County through the complex

infrastructure of the State Water Project (SWP) and the Central Valley Project (CVP). Valley Water has contractual rights (known as ‘Table A’ amounts) for 100,000 AFY from the SWP and additional rights for 152,500 AFY from the CVP. The actual amount of water delivered is virtually always less than the contractual amounts depending on hydrological conditions, environmental regulations, and conveyance limitations or infrastructure conditions.

Imported water may also be transferred and exchanged among CVP and SWP contractors as needed and available. Imported supplies are sent to Valley Water’s three drinking water treatment plants, sent to managed groundwater recharge areas, or stored in local, State, and federal reservoirs. Valley Water currently has 20 appropriative water rights licenses and one filed water right permit with the State Water Resources Control Board (SWRCB). Valley Water’s water rights total over 227,300 AFY. San José Water Company and Stanford University, which are both Valley Water retailers, also have their own surface water rights and contribute to local surface water availability.

4.3.2 Local Surface Water

In addition to purchasing imported surface water supplies, Valley Water also captures local surface water runoff in a system of ten reservoirs with a total storage capacity of about 166,000 acre-feet. Most of the reservoirs are sized for annual operations, storing water in winter for use in summer and fall. Supplies from the reservoirs are sent to drinking water treatment plants or diverted for aquatic habitat maintenance and groundwater recharge. On average, about 50,000 AFY of local runoff is recharged through existing recharge facilities, and Valley Water has multiple ongoing projects designed to increase stormwater capture and reuse capacity throughout the 2045 planning horizon. (Valley Water 2021b, 2021d).

4.3.3 Recycled Water

Recycled water is wastewater that goes through multiple levels of treatment and is generally suitable for non-potable use such as landscape irrigation, and purified water is highly treated wastewater that has passed through multiple treatment processes including microfiltration, reverse osmosis, and ultraviolet disinfection and produces water of potable quality as regulated by the SWRCB Division of Drinking Water. Using recycled and purified water can augment drinking and groundwater supplies and provide a reliable, drought-resilient, local water supply. Valley Water leads water reuse planning efforts within the County, resulting in current recycled water use of 17,000 AFY, or about five percent of the county’s water supply. Recycled water is used for non-potable uses such as landscape irrigation, industrial cooling, and dual plumbed facilities. This recycled water is produced at the four wastewater treatment plants in the county. It is important to note that the City of Morgan Hill does not currently utilize any recycled water.

Valley Water completed a Countywide Water Reuse Master Plan (CoRe Plan) in 2021 to “identify feasible opportunities to expand water reuse, improve water supply reliability, and increase regional self-reliance” (Valley Water 2021d). The CoRe Plan outlines Valley Water’s strategies toward achieving up to 24,000 AFY for purified, potable water reuse, and further contributes to groundwater sustainability by increasing overall supply availability and reliability.

5 Water Supply Reliability

As discussed in Section 4, *Water Supply Overview*, the City of Morgan Hill relies on two local groundwater subbasins which are managed for sustainability by Valley Water as the exclusive GSA for both subbasins. The City maintains a current UWMP which includes supply and use availability projections and is informed by Valley Water UWMP, thereby providing general consistency across the water supply planning documents. The following sections detail water supply availability and reliability projections from both local and regional water supply management plans.

5.1 Local Water Supply Projections

This section details the City's pre-project water demands, which reflect the amount of water consumed within its service territory prior to implementation of the proposed project (Table 6), as well as the amount of groundwater produced under pre-project conditions (Table 7). In addition, this section identifies projected future water supplies (Table 8), including with consideration to varying climatic conditions (Table 9) towards the purpose of assessing water supply availability and reliability for the proposed project.

5.1.1 Supply and Demand

Table 6, below, shows the city's actual water demands for 2020, which include Phase I of the previously approved Cochrane Commons Project.

Table 6 City of Morgan Hill Water Demand, Actual - 2020

Use Type	Volume (AF)
Single Family	3,736
Multi Family	1,214
Commercial	730
Landscape	1,255
Other	45
Losses	827
Total	7,808

Source: Morgan Hill 2021a

AF: Acre-feet

As discussed in Section 4.1.1, the City currently has a capacity to pump approximately 18,600 AFY and its firm capacity (a reliable estimate assuming the two largest wells are out of service) is approximately 16,700 AFY. Therefore, in comparison with the actual water demand of 7,808 AFY as shown above for 2020, there is sufficient supply available in the city to meet pre-project demands.

For comparison to 2020 demands, Table 7, below, shows the city's actual volume of groundwater pumped for years 2016 through 2020. The city has overlying landowner rights to the beneficial use of groundwater beneath its service area, as long as such use does not interfere with the sustainable management of the affected basin(s). As discussed previously, the Santa Clara and Llagas Subbasins are actively managed by Valley Water as the exclusive GSA for both subbasins, and both are

currently in sustainable conditions, actively replenished with imported surface water by Valley Water. Due to this successful management, the City of Morgan Hill is able to increase its available supply by constructing new groundwater wells and increasing the amount of groundwater pumped from the underlying subbasins, to meet increasing demands within the city. Therefore, the volumes of groundwater pumped by the City are directly correlated to water demands within the city.

Table 7 Groundwater Volume Pumped, 2016 - 2020

Groundwater Basin	Volume Pumped (AF)				
	2016	2017	2018	2019	2020
Santa Clara Subbasin	1,716	1,935	1,988	1,978	2,134
Llagas Subbasin	4,563	5,144	5,284	5,258	5,674
Total	6,279	7,079	7,272	7,236	7,808

Source: Morgan Hill 2021a

AF: Acre-Feet

The comparison provided above indicates a general upward trend in total water demand over the five years between 2016 and 2020. These are pre-project water demands, which include demands associated with the fully constructed Phase I, but do not include water demands associated with the revised Phase II, assessed herein as the proposed project.

As discussed in Section 4, *Water Supply Overview*, the City's 2021 WSMP assesses the construction of up to six new wells throughout the UGB to increase the available supply to match projected demands (Morgan Hill 2021b). The 2021 WSMP also discusses the construction of future recycled water infrastructure capable of producing up to 700 AFY of recycled water by 2030 and increasing to 2,900 AFY by 2045 (Morgan Hill 2021b). Table 8, below, identifies the water supply volumes projected to be available to the City through year 2045, which directly reflect the calculated natural recharge and sustainable yield rates of the Santa Clara and Llagas Subbasins, respectively, and the projected future development of recycled water.

Table 8 Projected Future Water Supplies 2025 - 2045

Water Supply Type	Water Supply Source	Volume (AF)				
		2025	2030	2035	2040	2045
Groundwater	Santa Clara Subbasin	2,300	2,300	2,300	2,300	2,300
Groundwater	Llagas Subbasin	22,500	22,500	22,500	22,500	22,500
Recycled Water	South Bay Water Recycling	0	700	1,500	2,200	2,900
Total		24,800	25,500	26,300	27,000	27,700

Source: Morgan Hill 2021a

AF: Acre-feet

Comparison of the tables above indicate that the projected supplies for years 2024 through 2045 are substantially greater than previous water demand, with a difference of nearly 17,000 acre-feet between the water demand in 2020 and the available supply in 2025. Table 3, *Projected Total Water Demand*, indicates that the proposed project water demand is approximately 223 AFY, 95 AFY of which was previously accounted for in the original design of Phase II, which was assessed in the 2005 EIR and informed the long-range planning documents including the City's UWMP. This

indicates that in total, the proposed project would increase local water demand by approximately 129 AFY, which is well within the available supplies, based upon the information provided above.

5.1.2 Supply Reliability

The primary source of disruption to city water supplies would be prolonged drought throughout the State which affected both natural recharge rates of the underlying subbasins and Valley Water’s ability to recharge the basins with imported water. Therefore, the City’s UWMP features a Water Service Reliability Assessment, which projects supply and demand under normal-water year, single-dry water year (drought), and consecutive-dry water year (sustained drought) conditions (Morgan Hill 2021a). These projections are shown below, in Table 9. The demands shown below are specific to the City of Morgan Hill and do not account for other users within the Santa Clara and Llagas Subbasins, which are detailed in the following Section 5.2, *Regional Water Supply Projections*.

Table 9 Morgan Hill Water Demand and Supply in Single and Multiple Dry Years

Use Type	Water Amount (AF)				
	2025	2030	2035	2040	2045
Average Year					
Supply	24,800	25,500	26,300	27,000	27,700
Demand	8,671	10,181	11,623	13,008	14,372
Difference	16,129	15,319	14,677	13,992	13,328
Single Dry Year					
Supply	19,840	20,400	21,040	21,600	22,160
Demand	8,671	10,181	11,623	13,008	14,372
Difference	11,169	10,219	9,417	8,592	7,788
Multiple Dry Year (Fifth Year of Drought¹)					
Supply	19,096	19,635	20,251	20,790	21,329
Demand	8,671	10,181	11,623	13,008	14,372
Difference	10,425	9,454	8,628	7,782	6,957

Source: Morgan Hill 2021a

1. Estimates from the fifth year of a prolonged drought are shown, as this would be the year with the highest demand and the proportionally smallest supply. Factors such as increased conservation during drought years are not included and it is assumed that projected demand would remain constant throughout the drought.

For the purposes of Table 9, above, the reduction in normal supply during the single driest year on record (1977) was utilized to calculate the reduction in supply during a single dry year in the future, and similar calculations were performed for the driest five-year period on record (1988-1992). In addition, to model the possibility for future supply disruption, such as but not limited to a substantial contamination event or condition, the city’s largest supply well was assumed to be offline. To calculate the total projected potable water demand through the UWMP planning horizon of 2045, the City’s 2020 urban water use target of 159 gallons per capita per day (gpcd) was applied to population projections contained in the 2016 General Plan. In addition, future water use reductions of up to five percent were calculated (Morgan Hill 2021a).

As shown in Table 9 above, the excess supply available beyond projected demands ranges from 16,129 AFY in a normal-year 2025 to 13,328 in normal-year 2045, and from 11,169 in a single-year

drought 2025 to 6,957 at the end of a five-year drought. These projections indicate that even in the case of severe drought there is excess supply available for the city to meet its water needs and the city currently has the firm capacity (16,700 AFY) to meet the supply need even without construction of future wells. However, as noted above, these projections do not account for other demands on the Santa Clara and Llagas Subbasins, which are detailed below, in Section 5.2.

5.2 Regional Water Supply Projections

Other entities that produce water supply from the Santa Clara and Llagas Subbasins include the City of Gilroy, which has higher water demands than the City of Morgan Hill, in addition to “Other Users” as identified by Valley Water (Valley Water 2021b). As discussed in Section 4.3, *Santa Clara Valley Water District*, Valley Water is the exclusive GSA for both the Santa Clara and Llagas Subbasins, and also supplements the Llagas Subbasin with imported surface water supplies as needed to maintain sustainable conditions (Valley Water 2021a, 2021b, 2021c). Table 10, below, provides an overview supply and demand by all known producers within the Llagas and Santa Clara Subbasins, during normal water year conditions. The supply shown below accounts for all sources available to Valley Water, including natural recharge, imported surface water, and recycled water.

Table 10 Projected Supply vs Demand Comparison, Regional Subbasins, Normal Water Year

Water User or Source	Volume (AF)				
	2025	2030	2035	2040	2045
Llagas Subbasin of the Gilroy-Hollister Valley Groundwater Basin					
City of Gilroy Demand	8,646	9,314	10,034	10,809	11,645
City of Morgan Hill Demand	6,301	6,890	7,357	7,855	8,337
Other Users Demand	32,019	30,674	29,954	28,534	27,390
Total Demand	46,966	46,878	47,345	47,198	47,372
Total Supply	47,320	47,580	48,373	48,188	48,342
Balance (Supply-Demand)	354	702	1,028	990	970
Santa Clara Subbasin (Coyote Valley Subarea) of the Santa Clara Valley Groundwater Basin					
City of Morgan Hill Demand	2,134	2,370	2,591	2,767	2,954
Other Users Demand	8,988	9,093	9,516	9,911	10,071
Total Demand	11,122	11,463	12,107	12,678	13,025
Total Supply	12,465	13,162	13,764	14,313	14,650
Balance (Supply-Demand)	1,343	1,699	1,657	1,635	1,625
Combined Available Supply	1,697	2,401	2,685	2,625	2,595

Source: Morgan Hill 2021a; Valley Water 2021b

AF: Acre-feet

Table 10 indicates that Valley Water projects excess supply to be available in non-drought conditions, with consideration to projected demands from the City of Morgan Hill, the City of Gilroy, and other users in the area.

5.3 Additional Future Supply

Additional future water supply sources that may be developed by the City are summarized below, and include increased recycled water development and use, infrastructure improvements to increase the ability to capture and store wet-year water in order to maintain supplies during drought, and increased conservation efforts to reduce overall demands on local supplies.

Regional Recycled Water

As mentioned in Section 4.3.3, recycled water currently consists of approximately five percent of Valley Water's total water supply. Total recycled water utilized for non-potable uses during 2020 was 17,000 AFY and Valley Water is actively planning to create the infrastructure necessary to also be purifying 24,000 AFY of potable water annually by 2045. In addition, as depicted in Table 8, the City plans to begin utilizing recycled water for non-potable uses as well. Recycled and purified water will become an increasingly important part of the total water supply in the coming decades, and is anticipated to reduce future reliance on imported water (Valley Water 2021d).

Infrastructure Improvements

Morgan Hill's 2020 WSMP identifies numerous infrastructure improvements that can serve to both increase local water supply and increase the ability to capture and store wet-year water in order to maintain supplies during drought (Morgan Hill 2021b). Valley Water's GWMP and WSCP similarly identify and assess infrastructure improvements designed to improve supply reliability through expanded storage (Valley Water 2021a, 2021c). These projects include dam improvements, seismic retrofits, and transfer pipelines; in total Valley Water expects to see an increase of up to 27,440 AFY in available supply from these infrastructure improvements (Valley Water 2021a, 2021c).

Conservation Efforts

Valley Water's 2020 WSCP includes a number of conservation measures to be implemented both short-and long-term in the event of prolonged drought, organized across various stages. In addition, Valley Water has invested heavily in conservation efforts including demand management and stormwater recapture. Water savings from these efforts were approximately 75,000 AFY region-wide in 2020, and Valley Water's WSMP anticipates raising these savings to 99,000 AFY by 2030 and 110,000 AFY by 2040 (Valley Water 2021a). In addition, the City of Morgan Hill has implemented numerous water conservation measures, including appointing a Water Conservation Coordinator, offering conservation rebates, extensive public outreach programs, and using conservation pricing in their water rates (Morgan Hill 2021a).

6 Conclusions

In accordance with California Water Code, as amended by SB 610, this WSA identifies and characterizes all known and potential water demands of the project, in comparison to the water supplies available to the project over a 20-year projection, with consideration to varying drought conditions and ongoing long-term supply management activities. Water supplies considered for the purposes of this WSA include the supply of the local purveyor, the City, and the supply of the agency responsible for management of those supplies, Valley Water.

The project's annual water demand after full buildout is conservatively estimated at approximately 223 AFY; of this amount, 94 AFY was previously assessed in the certified 2005 EIR for the Cochrane Commons Project. Those 94 AFY have been accounted for in the local water supply management documents, including the UWMPs of both the City and Valley Water, which are used to inform this WSA. Therefore, the new water demand associated with the proposed project, that is not already accounted for in local supply management plans, is approximately 129 AFY. This new demand is well within the available supply, including at the end of a five-year drought, which has been calculated to be 6,957 AFY, as shown in Table 9, *Morgan Hill Water Demand and Supply in Single and Multiple Dry Years*. The project's projected water demand of 129 AFY represents approximately two percent of the available surplus supply during extended drought conditions. This increases to approximately seven percent (during a normal water year) of available supply in 2025, reducing to approximately five percent of available supply in 2045, when accounting for other users of the Santa Clara and Llagas Subbasin, as reported by Valley Water.

The information and analysis provided in this WSA indicate that sufficient water supply is available to meet the water demands of the proposed project under average water year, single-dry water year, and multiple-dry water year scenarios, over a future projection of at least 20 years. Therefore, based on the information and analysis provided in this WSA, it is reasonably determined that sufficient water supply is available to the proposed project.

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