DRAFT
ENVIRONMENTAL IMPACT REPORT

GAVILAN COLLEGE – COYOTE CAMPUS PROJECT

SCH No. 2007122006

GAVILAN COLLEGE

FEBRUARY 2008

GAVILAN COLLEGE

NOTICE OF PUBLIC MEETING AND AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT (EIR), AND PUBLIC COMMENT PERIOD

The Gavilan Joint Community College District has prepared a Draft Environmental Impact Report (EIR) for the construction of the Gavilan College Coyote Campus, which would serve approximately 10,000 full time equivalent students on an approximately 55-acre property in the Coyote Valley area of San José. The project site is located in south San José, near the north end of Coyote Valley, on the south side of Bailey Avenue between the Santa Teresa Hills on the west and Fisher Creek on the east. The site is located approximately 1.8 miles southwest of the Bailey Avenue and U.S. Highway 101 interchange.

The proposed project will have potentially significant environmental effects with regard to Air Quality, Biological Resources, Cultural Resources, Energy Resources, Global Climate Change, Flooding, Hydrology, and Water Quality, Noise, Transportation, and Visual and Aesthetic Resources. The California Environmental Quality Act (CEQA) requires this notice to disclose whether any listed toxic sites are present at the project location. The project location is not contained in the Cortese List of toxic sites.

The Draft EIR and documents referenced in the Draft EIR are available for review online at the Gavilan College District's website: http://www.gavilan.edu/ and are also available at the following locations:

Gavilan Joint Community College District
College Library Building, Main Entrance (on reserve front desk)
5055 Santa Teresa Boulevard
Gilroy, CA 95020
(408) 848-4712
Hours available: Monday-Thursday, 8:00 a.m. – 8:00 p.m.
Friday, 8:00 a.m. – 3:00 p.m.

Morgan Hill Public Library
660 West Main Avenue
Morgan Hill, CA 95037
(408) 779-3196

The public review period for this Draft EIR begins on **February 22, 2008** and ends on **April 7, 2008.** Written comments must be received at the Gavilan College District by **5:00 p.m.** on **April 7, 2008**, in order to be addressed as part of the formal EIR review process. Comments and questions should be referred to Dr. Steven M. Kinsella at Gavilan College, 5055 Santa Teresa Boulevard, Gilroy, CA 95020, (408) 848-4712 or by fax at (408) 847-5102, or by regular mail at the mailing address listed above.

Following the close of the public review period, the Gavilan College District will prepare a Final Environmental Impact Report that will include responses to comments received during the review period. Ten days prior to the public hearing on the EIR, the District's responses to comments received during the public review period will be available for review and will be mailed to those who have commented in writing on the EIR during the public review period.

A public meeting on the EIR to describe the proposed project and to obtain your comments on the EIR is scheduled during the public review period. The EIR Public Meeting will be held: **March 13, 2008** at 6:30 – 8:30 p.m. at the Morgan Hill Community Center El Toro Room, 17000 Monterey Road, Morgan Hill, 95037.

Steven M. Kinsella

Dr. Steven M. Kinsella, Superintendent / President
Gavilan Joint Community College District

2/20/08

Date

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SUMMARY

The Gavilan Joint Community College District (District) is proposing to develop a community college campus that would accommodate up to 10,000 full time equivalent students on an approximately 55-acre property in the Coyote Valley area of San José. The campus would have approximately 505 employees including faculty and staff when completely developed and during periods of maximum use.

The college campus uses are those of a typical community college including classroom and administration buildings, gymnasium, athletic fields and parking. A police academy complex would also be located on of the site and would include classroom buildings, indoor firing range building, and operational facility.

The District's service area encompasses of approximately 2,700 square miles in southern Santa Clara County and most of San Benito County.

The following is a **brief summary** of project impacts and mitigation measures. The reader is referred to the main body text of this EIR for detailed discussions for the existing setting, impacts and mitigation measures.

Summary of Impacts and Mitigation Measures

The following table summarizes the significant environmental impacts identified and discussed within the text of the EIR, and identifies the mitigation measures proposed to avoid or reduce those impacts. Per California Environmental Quality Act (CEQA), impacts determined to be less than significant are not included in this summary.

Significant Environmental Impact	Mitigation Measures
Transportation	
Impact TRAN-1: Based on the Santa Clara County Congestion Management Program (CMP) criteria for significant impacts on freeways, the project would have a significant impact on the directional freeway segment (US 101 northbound from Tennant Avenue to East Dunne Avenue) under project conditions. **Significant Impact**	**MM TRAN-1:** The mitigation necessary to reduce the significant impact upon the freeway segment is the widening of the freeway. Due to the substantial cost, this measure is not considered feasible for a single development project. This impact is, therefore, considered significant and unavoidable. **Significant Unavoidable Impact**
Air Quality	
Impact AIR-1: The proposed project would result in a significant regional air quality impacts associated with respirable particulates (PM_{10}) emissions. **Significant Impact**	**MM AIR – 1:** The measures listed below would represent reasonable and feasible measures that would reduce air pollutant emissions. Reducing vehicle trips associated with the project would be most effective in reducing project emissions. The number of daily trips can be reduced by properly implementing appropriate measures that are consistent with Bay Area Air Quality

Significant Environmental Impact	Mitigation Measures
	Management District (BAAQMD) Treatment Control Measures (TCMs): • Provide bicycle parking in accordance with Santa Clara County Valley Transportation Authority (VTA) Countywide Bicycle Plan Technical Guidelines, September 1999 (see Traffic Section). Under these recommendations, 50% of the bicycle parking would be in secure areas (e.g., locker rooms, guarded valet areas, etc.). • Enhanced pedestrian facilities that include easy access and signage to bus stops and roadways that serve the site. This would include safe, convenient access to bus stops. • Implement a landscape plan that provides shade trees along buildings and pedestrian pathways. • The project should be required to promote transit use by providing transit information and incentives to employees. • Include services such as small restaurants, ATMs, and small retail stores. • Consider providing scheduled shuttle service between the college and Monterey Highway. • Support efforts to add a bicycle lane to Bailey Avenue that would access the college. Full implementation of these mitigation measures would reduce the impact, but not to a less than significant level. **Significant Unavoidable Impact**
Impact AIR-2: The proposed project could result in construction related air quality impacts from dust (PM_{10}) and diesel exhaust. **Significant Impact**	**MM AIR - 2:** Implementation of the measures recommended by BAAQMD and those listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. Measures to reduce diesel particulate matter and $PM_{2.5}$ from construction are recommended to ensure that short-term health impacts to nearby sensitive receptors are avoided. These measures shall be included on the construction documents and plans. • Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to

Significant Environmental Impact	Mitigation Measures
	residences should be kept damp at all times. • Cover all hauling trucks or maintain at least two feet of freeboard. • Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas. • Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously-graded areas that are inactive for 10 days or more). • Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles. • Limit traffic speeds on any unpaved roads to 15 mph. • Replant vegetation in disturbed areas as quickly as possible. • Suspend construction activities that cause visible dust plumes to extend beyond the construction site. • Prohibit use of "dirty" equipment. If equipment with noticeably dirty emissions shall be prohibited from operation at the site until proper maintenance has been performed to reduce the visible emissions to acceptable levels. If necessary, opacity shall be used as an indicator of exhaust particulate emissions from off-road diesel powered equipment, where the project shall ensure that emissions from all construction diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately • Signs shall be clearly posted at the construction site indicating that diesel equipment standing idle for more than five minutes shall be turned off. This would

Significant Environmental Impact	Mitigation Measures
	include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite. • Properly tune and maintain equipment in accordance with manufacturer specifications. **Less Than Significant Impact**
Noise	
Impact NOI–1: Future students and facility on the project site would be exposed to noise levels exceeding 60 dBA DNL. **Significant Impact**	**MM NOI – 1:** The following mitigation measures would reduce the potentially significant impacts to a less-than-significant level: • Retain a qualified Acoustical Specialist during project design to prepare a detailed acoustical analysis of interior noise reduction requirements and specifications for all noise-sensitive interior spaces within 260 feet of the center of Bailey Avenue (e.g., classrooms, offices, etc. in the Main Building). Results of the analysis, including the description of the necessary noise control treatments, shall be incorporated into project design and building plans prior to sending the project out to bid and prior to the awarding construction contract. • Building sound insulation requirements shall include forced air mechanical ventilation in noise environments exceeding 60 dBA DNL. **Less Than Significant Level with Mitigation**
Hydrology, Drainage and Water Quality	
Impact HYD-1: The proposed project would encroach into the existing FEMA 100-year floodplain and the FEMA floodway and could significantly impact floodplain storage in the Fisher Creek watershed. **Significant Impact**	**MM HYD – 1:** The following mitigation measures would reduce the potentially significant impacts to a less-than-significant level: • The proposed athletic fields on the southeast side of the site are located within the floodplain and shall be graded to remain similar to existing ground elevations. The fields could be flooded briefly every few years, and flooded for several days in a large flood event. • To mitigate for potential increased runoff

Significant Environmental Impact	Mitigation Measures
	from development, the proposed project includes a hydromodification management plan (HMP) detention basin to maintain the existing flow-duration conditions for runoff from the site. The size of the HMP basins for either the Phase 1 or entire Campus developments would depend on the final depth and configuration. At a minimum, the HMP basin would meet the Regional Water Quality Control Board (RWQCB) requirements to limit erosion within the downstream channels. **Less Than Significant Level with Mitigation**
Impact HYD-2: The proposed project will increase impervious surfaces on the site and may result in pollutants in post-project stormwater. **Significant Impact**	**MM HYD-2**: The following mitigation measures, based on RWQCB Best Management Practices, are included in the proposed project to ensure compliance with National Pollution Discharge Elimination System (NPDES) permit requirements to reduce post-construction water quality impacts: • The project shall conform to stormwater/urban runoff regulations in place prior to the start of construction. • When the construction phase is complete, a Notice of Termination (NOT) for the General Permit for Construction will be filed with the RWQCB. The NOT will document that all elements of the Stormwater Pollution Prevention Plan (SWPPP) have been executed, construction materials and waste have been properly disposed of, and a post-construction stormwater management plan is in place as described in the SWPPP for the project site. • All post-construction Treatment Control Measures (TCMs) will be installed, operated, and maintained by qualified personnel. • The District will keep a maintenance and inspection schedule and record to ensure that the TCMs continue to operate effectively for the life of the project. **Less Than Significant Level with Mitigation**

Significant Environmental Impact	Mitigation Measures
Impact HYD-3: Construction of the proposed project could cause a significant temporary increase in the amount of contaminants in storm water runoff during construction. **Significant Impact**	**MM HYD-3:** The following mitigation measures, based on RWQCB Best Management Practices, are included in the proposed project to ensure compliance with NPDES permit requirements to reduce construction related water quality impacts: • During construction, burlap bags filled with drain rock will be installed around storm drains to route sediment and other debris away from the drains. • During construction, earthmoving or other dust-producing activities will be suspended during periods of high winds. • During construction, all exposed or disturbed soil surfaces will be watered at least twice daily to control dust as necessary. • During construction, stockpiles of soil or other materials that can be blown by the wind will be watered or covered. • During construction, all trucks hauling soil, sand, and other loose materials will be covered and/or all trucks will be required to maintain at least two feet of freeboard. • During construction, all paved access roads, parking areas, staging areas will be swept daily (with water sweepers). • During construction, vegetation in disturbed areas will be planted as quickly as possible. • Prior to construction grading for the proposed land uses, the District will file a "Notice of Intent" (NOI) to comply with the General Permit administered by the Regional Board and will prepare a SWPPP which identifies measures that would be included in the amendment to minimize and control construction and post-construction runoff. The following measures would be included in the SWPPP: ▪ Preclude non-stormwater discharges to the stormwater system. ▪ Effective, site-specific Best Management Practices for erosion and sediment control during the construction and post-construction periods.

Significant Environmental Impact	Mitigation Measures
	▪ Coverage of soil, equipment, and supplies that could contribute non-visible pollution prior to rainfall events or perform monitoring of runoff. ▪ Perform monitoring of discharges to the stormwater system. • The certified SWPPP will be posted at the site and will be updated to reflect current site conditions. **Less Than Significant Level with Mitigation**
Biological Resources	
Impact BIO-1: The proposed project will result in a significant impact to seasonal wetlands. **Significant Impact**	**MM-BIO-1.1:** For any construction adjacent to wetlands or ponds that are to be preserved, measures shall be implemented to prevent any incursion into wetland areas by equipment, materials, or construction workers. Construction fencing shall be installed prior to any construction activities. The base of the fence shall be lined with silt fencing or similar material at least 24 inches in height that is buried six inches in the ground to prevent incursion under the fence. This will prevent any material from washing or falling into ponds or portions of wetlands (e.g., off-site) that are not intended to be impacted by this project. **MM-BIO-1.2:** Seasonal wetland habitat that will be permanently impacted by project implementation shall be replaced at a level that will ensure no net loss of habitat functions and values. Wetland habitat shall be mitigated at a suitable off-site location at a replacement ratio of at least 1.5:1 (compensation:impact). Because the wetlands on-site are disced during the dry season, and planted, these to have a lower value to wildlife than undisturbed wetlands, and that a mitigation ratio of 1.5:1 is considered by the biologist to be adequate to compensate for project impacts. **MM-BIO-1.3:** A Mitigation and Monitoring Plan for the replacement of seasonal wetland will be prepared by a qualified restoration ecologist and will provide the following: 1. Summary of habitat impacts and proposed mitigation ratios

Significant Environmental Impact	Mitigation Measures
	2. Goal of the restoration to achieve no net loss of habitat functions and values 3. Location of mitigation site(s) and description of existing site conditions 4. Mitigation design: • existing and proposed site hydrology • grading plan if appropriate, including bank stabilization or other site stabilization features • soil amendments and other site preparation elements as appropriate • planting plan • irrigation and maintenance plan • remedial measures/adaptive management, etc. 5. Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.) 6. Contingency plan for mitigation elements that do not meet performance or final success criteria Permits would be required from the regulatory agencies prior to project construction or mitigation installation that will impact jurisdictional wetlands, drainages, streams etc. These agencies would typically include the U.S. Army Corps of Engineers (USACE) and RWQCB, and the California Department of Fish and Game (CDFG) if it exerts jurisdiction over any on-site habitats. **Less Than Significant Level with Mitigation**
Impact BIO-2: The proposed project could result in a significant impact to California tiger salamanders.	**MM-BIO-2.1:** A worker education program shall take place before the commencement of construction, and a qualified biologist shall explain to construction workers how best to avoid the accidental take of California tiger salamanders. The approved biologist shall complete a training session that would be scheduled as a mandatory informational field meeting for contractors and all construction personnel. The field meeting shall include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Emphasis will be placed on the importance of the habitat and life stage requirements within the context of project

Significant Environmental Impact	Mitigation Measures
	avoidance and minimization measures. Handouts, illustrations, photographs, and project mapping showing areas where minimization and avoidance measures are being implemented shall be included as part of this education program. The program will increase the awareness of the contractors and construction workers about existing federal and state laws regarding endangered species as well as increase their compliance with conditions and requirements of resource agencies. **MM-BIO-2.2:** Prior to commencement of project work, exclusion fencing shall be installed around the limits of construction to prevent tiger salamanders in off-site areas from entering the work area. No work shall be performed outside the exclusion fencing. Exclusion fencing shall consist of smooth-faced fencing material (e.g., silt fence) buried in the ground a minimum of six (6) inches and held in place by rigid stakes and/or by attachment to another type of fencing (e.g., chain-link) to ensure that the fencing remains upright. The fencing shall be a minimum of 12 inches tall following installation. During construction, dedicated construction personnel will conduct daily checks of the exclusion fencing to ensure that it is functioning correctly (e.g., without any gaps through which California tiger salamanders might enter the work area), and to maintain the fencing as needed. **MM-BIO-2.3:** Prior to the commencement of work, a qualified biologist shall complete a pre-construction survey of the main on-site pond for California tiger salamanders, including adults and larvae. This survey shall include seining or other measures adequate to detect any tiger salamanders present within the pond. Individuals captured shall be translocated to the southwestern pond (which will not be impacted directly, or surrounded by development, as part of this Project) with the approval of the U.S. Fish and Wildlife Service (USFWS).

Significant Environmental Impact	Mitigation Measures
	MM-BIO-2.4: Prior to the start of work each day, dedicated construction personnel will inspect trenches and pits that were left open overnight for California tiger salamander. If a salamander of any kind is encountered during project construction, the following protocol will be implemented: • All work that could result in direct injury, disturbance, or harassment of the individual animal must immediately cease; • The foreman will be immediately notified; • The foreman will immediately notify a qualified biologist, who in turn will immediately notify USFWS and CDFG; • If approved by the USFWS and CDFG, the qualified biologist will remove the individual to a safe location nearby. **MM-BIO-2.5:** The project proponent shall mitigate for the loss of the main on-site pond (as a result of isolation by development) as a potential California tiger salamander breeding pond by creating or significantly enhancing a breeding pond at an off-site location, at a 1:1 acreage ratio. Significant enhancement of an off-site pond would include removal of non-native predators that prevent an otherwise suitable pond from supporting successful breeding by tiger salamanders; reconstruction of a pond that formerly existed (e.g., one that may have been drained due to failure of a dam); or excavating an otherwise suitable breeding pond that has filled with sediment, and that consequently does not pond long enough for successful breeding by tiger salamanders. The 1:1 acreage ratio requirement may be satisfied by the creation of a single pond, or multiple smaller ponds. The project proponent shall mitigate for any permanent loss of California tiger salamander upland dispersal or aestivation habitat at a 2:1 (compensation:impact) ratio through permanent preservation of the appropriate acreage of aestivation habitat within 2,200 feet of a known breeding location for the

Significant Environmental Impact	Mitigation Measures
	species off-site. Alternatively, this ratio may be reduced (but will not be less than 1:1) if creation or significant enhancement of breeding ponds beyond the 1:1 mitigation requirement mentioned above is performed; the degree to which the ratio may be reduced shall be determined by a qualified herpetologist in consultation with the US Fish and Wildlife Service, and will be based on the herpetologist's opinion of the value of the additional aquatic breeding habitat provided. All off-site mitigation, including the design of new breeding ponds, measures to enhance existing ponds, and identification of appropriate upland habitat shall be supervised by a qualified herpetologist. **Less Than Significant Level with Mitigation**
Impact BIO-3: The proposed project could result in a significant impact to Burrowing Owls.	**MM-BIO-3.1:** Pre-construction surveys for Burrowing Owls shall be completed in potential habitat in conformance with CDFG protocols, no more than 30 days prior to the start of construction. If no Burrowing Owls are located during these surveys, no additional action would be warranted. However, if Burrowing Owls are located on or immediately adjacent to the site the following mitigation measures shall be implemented. **MM-BIO-3.2:** If Burrowing Owls are present during the nonbreeding season (generally 1 September to 31 January), a 150-foot (ft) buffer zone shall be maintained around the occupied burrow(s). During the breeding season (generally 1 February to 31 August), a 250-ft buffer, within which no new activity will be permissible, shall be maintained between project activities and occupied burrows. Owls present on site after 1 February will be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area shall remain in effect until 31 August, or based upon monitoring evidence, until the young owls are foraging independently.

Significant Environmental Impact	Mitigation Measures
	MM-BIO-3.3: If construction will directly impact occupied burrows, eviction of owls shall occur outside the nesting season. No burrowing owls shall be evicted from burrows during the nesting season (1 February through 31 August) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season). **Less Than Significant Level with Mitigation**
Impact BIO-4: Construction activities such as tree removal and site grading, could disturb a nesting raptor on-site or immediately adjacent to the site.	**MM-BIO-4.1:** Avoid nesting season construction. Construction shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors, in the South San Francisco Bay area extends from February through August. **MM-BIO-4.2:** If it is not possible to schedule construction between 1 September and 31 January, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. This survey should be completed no more than 14 days prior to the initiation of demolition/construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., grasslands, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest, typically 250 feet, to ensure that no nests of species protected by the MBTA or State Code will be disturbed during project implementation.

Significant Environmental Impact	Mitigation Measures
	MM-BIO-4.3: If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting substrate (e.g., bushes, trees, grass, burrows) that will be removed by the project shall be removed before the start of the nesting season (January) to help preclude nesting. **Less Than Significant Level with Mitigation**
Cultural Resources	
Impact CUL-1: Utility trenching could result in significant cultural resources impacts. **Significant Impact**	**MM CUL-1:** The project proposes to include the following measures to reduce cultural resources impacts to a less than significant level. • The project shall avoid significant impacts and disturbance of prehistoric cultural materials during utility trenching operations by monitoring the utility installation. This operation shall be undertaken under the direction and supervision of an professional archaeological monitor certified by the RPA, with the authority to direct and halt earthmoving activities as deemed necessary by the monitor, if and when cultural soils are encountered. It is expected that earthmoving equipment with a blade, or other scraping mechanism will be employed. In the event that buried cultural materials are discovered, the provisions of the California Health and Safety Code listed below shall be followed. **Less Than Significant Impact with Mitigation**
Visual and Aesthetic Resources	
Impact AES–1: Development of the site will substantially alter the views of open fields and hillsides from rural scenic corridors and will constitute a significant change in the views of scenic resources. **Significant Impact**	The proposed project includes landscaping along and throughout the project site. However, there are no measures included in the project that would reduce the visual impact from conversion of a rural area to urban uses. **Significant Unavoidable Impact**

Significant Environmental Impact	Mitigation Measures
Energy Resources	
Impact ENR-1: The transportation of fill to the site during construction will result in a significant consumption of gasoline and therefore, would result in a significant energy impact. **Significant Impact**	The energy impacts associated with the transportation of fill to the site cannot be mitigated to a less than significant level. **Significant Unavoidable Impact**
Cumulative Impacts	
Impact C-AIR-1: According to BAAQMD thresholds, the proposed project, in combination with the cumulative projects, would result in a significant regional air quality impact. **Significant Cumulative Impact**	While the project includes Transportation Control Measures (TMCs), the project's contribution to the cumulatively significant air quality impacts will remain significant and unavoidable. **Significant Unavoidable Impact**
Impact C-GCC-2: Due to the proposed location of the new campus, the project would result in a net increase in carbon dioxide emissions and it would not be consistent with strategies to reduce Vehicle Miles Traveled per capita over time. The project, along with other cumulative projects, would contribute to a significant cumulative global climate change impact. **Significant Cumulative Impact**	**Program MM C-GCC-2.1:** Future development on the site would be designed to conform with Community College Board *Energy and Sustainability Policies*, including designing new facilities that out-perform the energy code by 15 percent, using available economically feasible technology or procuring 20 percent of their electricity needs from renewable sources by 2010 and 40 percent by 2014 and designating energy/utility managers at the campus level and developing energy and sustainable strategic plans for each campus. **MM C-GCC-2.2:** *Section 3.3 Air Quality* identifies several measures that could reduce VMT, including the use of shuttles, transit incentives to employees, and bicycle facilities. These measures are currently included in the project. The project, even with the implementation of identified energy reduction policies, would result in a significant unavoidable contribution to cumulative global climate change impacts. **Significant Unavoidable Cumulative Impact**
Impact C-BIO-3: Indirect impacts may occur to approximately 2.7 acres of serpentine grasslands. **Significant Cumulative Impact**	**MM C-BIO-3:** The following Serpentine Grassland Preservation and Management mitigation measures would reduce the potentially significant impacts to a less-than-significant level: • The project's potential contribution to the

Significant Environmental Impact	Mitigation Measures
	cumulative impact of nitrogen emissions on serpentine grasslands will be mitigated by the acquisition and management of serpentine grassland in the Coyote Valley area. Given the conservative approach to impact assessment that has been taken, and the anticipated low magnitude of this project's contribution to actual, on-the-ground impacts to native serpentine grasslands, a one to one (1:1) impact:mitigation ratio is appropriate. The project will compensate for this impact by acquiring, via fee title or conservation easement, at least 2.7 acres of serpentine grassland near Coyote Valley and ensuring its management in perpetuity to benefit native serpentine plant and animal communities. **Less Than Significant Cumulative Impact**
Impact C-AES-4: The cumulative proposed and approved projects would result in cumulatively significant visual and aesthetic impacts, and the proposed Gavilan College Campus project would make a cumulatively considerable contribution towards this cumulative impact. **Significant Cumulative Impact**	There are no measures included in the project that would reduce the cumulative visual impact to a less than significant level. **Significant Unavoidable Impact**

Avoidance Measures
Cultural Resources
AM CUL-1.1: In accordance with CEQA Guidelines Section 15064.5 (f), if any previously unknown historic or prehistoric resources are discovered during grading, trenching, or other on-site excavation, earthwork within 100 feet of these resources shall be stopped until a professional archaeologist certified by the Register of Professional Archaeologists (RPA) has an opportunity to evaluate the significance of the find and suggest appropriate mitigation as determined necessary to protect the resource. In the event that Native American human remains or funerary objects are discovered, the provisions of the California Health and Safety Code shall be followed. Section 7050.5(b) of the California Health and Safety Code states: • 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 the county in which the human remains are discovered has determined, in accordance with Chapter 10 of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or

Avoidance Measures
her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. • The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission within twenty-four hours. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." A combination of preconstruction worker training and intermittent construction monitoring by a qualified archaeologist will serve to achieve compliance with this requirement for protection of human remains. Worker training typically instructs workers as to the potential for discovery of cultural or human remains, and both the need for proper and timely reporting of such find, and the consequences of failure thereof. Once the find has been identified, the archaeologist will make the necessary places for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be significant according to CEQA. If unknown buried resources and/or Native American human remains are found on-site, compliance with applicable laws and policies will result in a less than significant impact.

Significant Unavoidable Impacts

If the project is implemented, the following significant unavoidable environmental impacts will occur:

- Significant air quality impacts
- Significant transportation impacts
- Significant visual and aesthetic impacts
- Significant energy impacts
- Significant cumulative global climate change impacts

Summary of Alternatives

Section 5.0 Alternatives to the Project evaluates the environmental impacts of three alternatives to the proposed project, one of which is the No Project Alterative. These alternatives are summarized below.

No Project Alternative

The No Project alternative consists of a continuation of the existing agricultural cultivation of the site. As long as the property owner continues the agricultural operation, the existing conditions could continue. Within the context of the existing land use designation and zoning the site could be developed with between 500,000 and 900,000 square feet of campus industrial uses. This development would require construction of considerable infrastructure, including roadways, drainage facilities and utility extension at a minimum. There would also be greater traffic impacts with an industrial campus development. The campus industrial development of the site is expected to require additional approvals.

Impacts from the continued operation of the site would be those that occur from the conditions reflected throughout this EIR in the sections entitled "Existing Setting". The No Project Alternative (assuming the continued use of the existing agricultural uses) would avoid the significant environmental impacts of the project; however, it would also fail to implement several environmental benefits that result from the project. In particular, the No Project Alternative would not recapture more than 1,800 existing Gavilan District students that currently drive past the proposed site and travel to other community college districts located to the north and would not reduce travel distances times for students and reduce the associated fuel energy consumption and air pollution emissions. The project would reduce the daily miles traveled of the proposed college population by approximately 27,000 miles.

Reduced Scale Alternative

The Reduced Scale Alternative consists of a 6,000 full-time equivalent (FTE) students compared to the proposed 10,000 FTE. The Reduced Scale Alternative campus would continue to be on the same property, but the 3.2 acres of seasonal wetland area (impacted by the project) could potentially be avoided, the core campus buildings would be less than five stories, and parking would be reduced in proportion to the reduced building size and student count. Most of the site would be filled as proposed by the project except for the detention basin. The seasonal wetland adjacent to the project boundary would be excluded from disturbance and the toe of the project fill extended to near their edge. The seasonal wetland located near the south central sector of the site would be left undisturbed but fill would completely surround it with surface drainage directed away from the pond. The existing pond on the site would be preserved and incorporated into the campus similar to what is proposed by the project.

By reducing the campus size to 6,000 FTE students, the significant unavoidable traffic and air quality impacts would be eliminated. Seasonal wetland habitat impacts may be slightly less than the proposed project but would likely still require implementation of identified project mitigation measures. All other impacts would be similar the proposed project.

While this alternative is feasible from a land use and planning standpoint and would establish a campus within the northern sector of the Gavilan District to serve both existing and future students, it would not fully meet the District's goal of creating a 10,000 FTE student campus. This alternative would reduce travel distances and travel times for students and also reduce the associated fuel energy consumption and air pollution emissions compared to the No Project Alternative, however, it would not provide as much student capacity as compared to the proposed project.

Location Alternative

Two locations were identified and evaluated based on the selected characteristics. It should be noted that other locations were evaluated by the District, but they were located outside the Urban Service Area (USA) and were eliminated from further review due to the additional constraints and impacts associated with extending utilities and services as well as changing the USA. As explained in more detail in *Section 5 Alternatives, Feasibility of Alternatives*, the land cost of the alternative sites are more than double the cost of the project site and, therefore, are not financially feasible. Nevertheless, the alternatives sites are described here for comparison purposes.

Site 1: A 50-acre site located along the north side of Bailey Avenue east of Santa Teresa Boulevard. This undeveloped site is part of a 688-acre property approved for industrial/office/research referred

to as the Coyote Valley Research Park. This development, approved in 2001, has completed some infrastructure improvements but has not been developed further. This alternative would require on-site detention that would discharge to Fisher Creek similar to the proposed project.

Site 2: A 50-acre site location along the south side of Bailey Avenue east of Santa Teresa Boulevard. This site is undeveloped agricultural land that is currently not approved for development. This alternative would require on-site detention that would discharge to Fisher Creek similar to the proposed project.

The project's wetland impacts and impact upon California tiger salamanders habitat would be avoided. Since these sites are not located within a floodway or flood plain, the site would not require 450,000 cubic yards of fill to be imported during construction and thus would not result in significant energy impacts related to fuel consumption. Flooding, water quality and drainage impacts of the proposed project could be avoided by developing the college campus on either of the alternatives sites.

The air quality, transportation, noise, visual, and Burrowing Owl habitat impacts of locating the college campus on either alternative site would be comparable to the proposed project site.

Either of the alternatives sites would meet the District's objectives and would lessen the environmental impacts compared to the proposed project site. While these sites will reduce environmental impacts and meet project objectives, these sites were not financially feasible for the District. A typical Gavilan Joint Community College campus is approximately 80 acres in size. Due to the high price of land in Coyote Valley, the District was only able to acquire approximately 55 acres. In actual fact, the District contracted to purchase 34+ acres and the property seller offered to subsequently donate an additional 20 acres. With a smaller 55 acre site, the District must have a more compact campus with four and five story buildings. The smaller 55 acre site also allows for less environmental impacts such as loss of agricultural lands, displacement of seasonal wetlands, and loss of potential California Tiger Salamander habitat.

Environmentally Superior Alternative

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussions, the environmentally superior alternative is the No Project Alternative, because all of the project's significant environmental impacts would be avoided if no new construction occurred under this Alternative. CEQA Guidelines Section 15126.6(e)(2), however, states that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Either of the Location Alternatives would be the environmentally superior alternative to the proposed project but is not financially feasible. Therefore, the alternative that is both financially feasible and environmentally feasible is the reduced scale alternative. The reduced scale alternative would not accomplish all the objectives of the project since it would only accommodate 6,000 students rather than the project's objective of 10,000 students.

1.0 INTRODUCTION

1.1 INTRODUCTION OVERVIEW

This Environmental Impact Report (EIR) has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA). The purpose of the EIR is to provide objective information regarding the environmental consequences of the proposed project to the decision makers who will be reviewing and considering the proposed project.

The following guidelines are included in CEQA to clarify the role of an EIR:

> **§15121(a). Informational Document.** An EIR is an informational document, which will inform public agency decision makers, and the public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR, along with other information which may be presented to the agency.
>
> **§15146. Degree of Specificity.** The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.
>
> (a) An EIR on a construction project will necessarily be more detailed in the specific effects of a project than will an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.
>
> (b) An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction project that might follow.
>
> **§15151. Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently considers environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

1.2 PROJECT LOCATION

The project site is located in south San José, near the north end of Coyote Valley, on the south side of Bailey Avenue between the Santa Teresa Hills on the west and Fisher Creek on the east. The site is located approximately 1.8 miles southwest of the Bailey Avenue and U.S. Highway 101 interchange.

1.3 REFERENCE AVAILABILITY

Copies of all documents referred to in this EIR are available for public review at the Gavilan Joint Community College District, College Library Building, Main Entrance (on reserve front desk), located at 5055 Santa Teresa Boulevard, Gilroy, California on weekdays during business hours.

2.0 DESCRIPTION OF THE PROPOSED PROJECT

2.1 OVERVIEW

The Gavilan Joint Community College District (District) is proposing to develop a community college campus that would accommodate up to 10,000 students on an approximately 55-acre property in the Coyote Valley area of San José. A regional map, vicinity map, and aerial photograph of the project site are shown on Figures 1, 2, and 3, respectively. The District's service area encompasses of approximately 2,700 square miles in southern Santa Clara County and most of San Benito County, as shown on Figure 4. Currently, the District operates a main campus at Santa Teresa Boulevard and Castro Valley Road in Gilroy and two instructional sites in Hollister and Morgan Hill to supplement the curricular offerings at the main Gilroy campus. In 2006 – 2007, the District served an estimated 10,300 students and employed 233 full time equivalent permanent employees and approximately 210 part time faculty employees each semester.

2.2 PROJECT DESCRIPTION

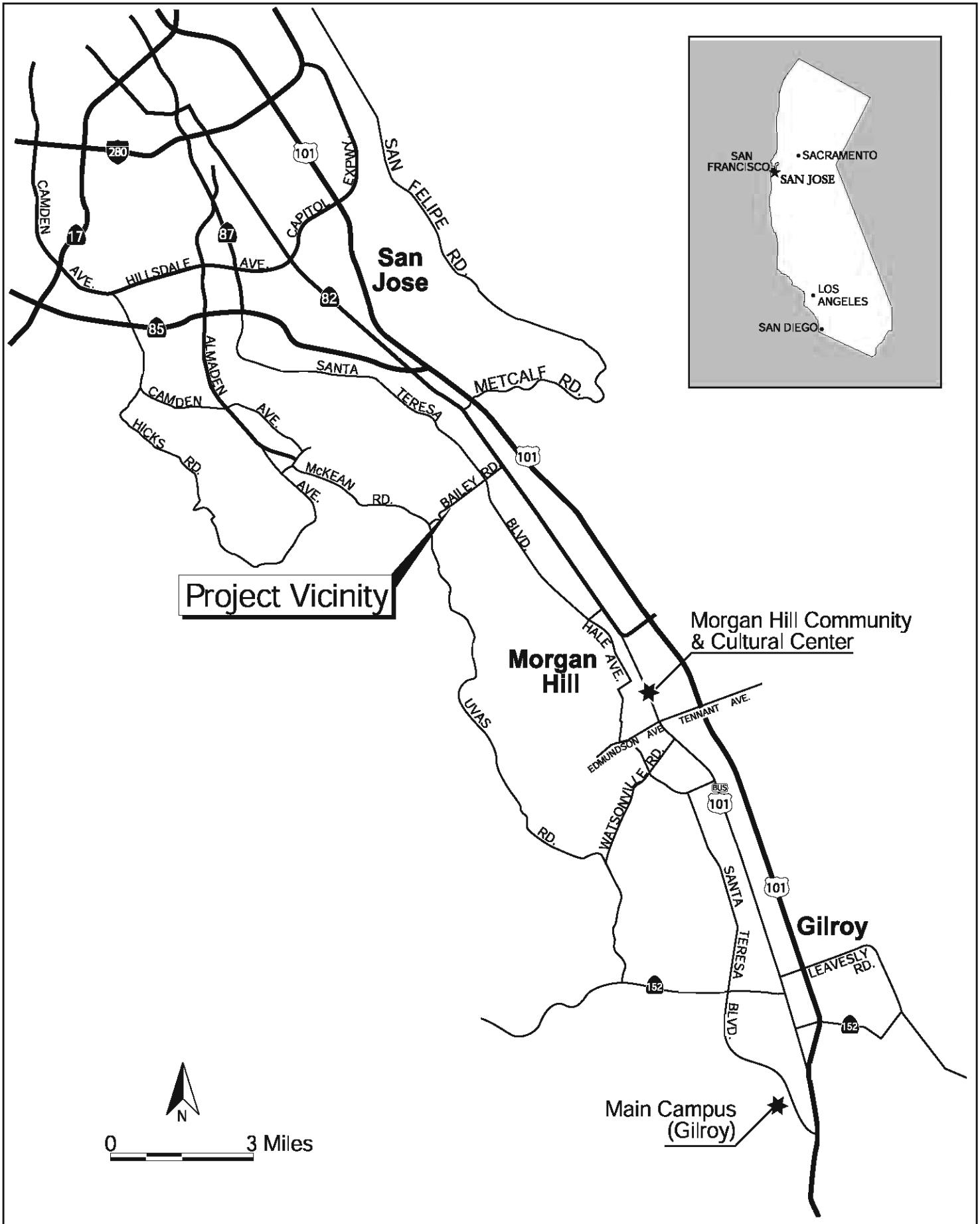
The proposed project is the development of a Community College Campus on an approximately 55-acres site in north Coyote Valley that could serve 10,000 full time equivalent[1] students. The campus would have approximately 505 employees including faculty and staff when completely developed and during periods of maximum use.

The college campus uses are those of a typical community college including classroom and administration buildings, gymnasium, athletic fields and parking. A police academy complex would also be located in the southwest corner of the site and would include classroom buildings, indoor firing range building, and operational facility. The project site includes a 110,900-square feet water feature[2] that would be retained and incorporated into the campus master plan as shown on Figure 5, the College Campus Master Plan. The areas of the site that would be occupied by each of these uses is shown in Table 1 and described below.

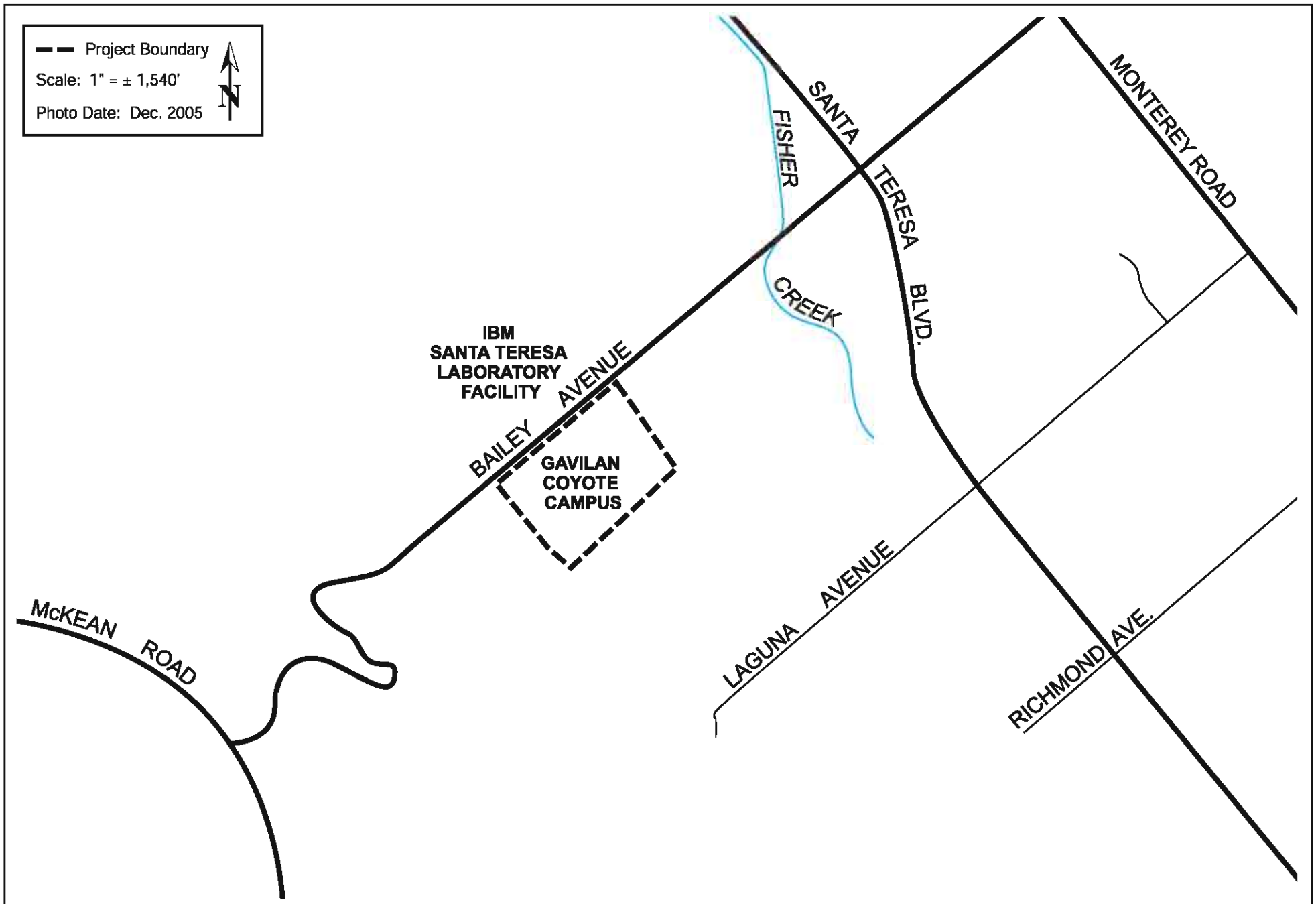
Table 1:
Proposed Land Use Areas

Project Land Uses	Square Feet
Building Footprints	162,710
Driveways and Parking	703,887
Athletic Fields	391,852
Pool	1,300
Paved Pathways	199,473
Landscaping	815,988
Water Feature/Pond	110,900
Total Coverage Area (54.77 acres)	**2,386,110 SF**

[1] Full-time equivalent is used for comparative purposes between part-time and full-time students, often related to funding or making comparisons about the size of institutions.
[2] The water feature was part of golf course that was formerly developed on the site in the late 1960s to early 1980s.



REGIONAL MAP FIGURE 1



VICINITY MAP

FIGURE 2

2.2.1 Buildings

Buildings would be located generally on the westerly half of the site as shown on Figure 5. A total of 601,792 square feet of buildings are proposed on the campus (refer to Table 2). The largest buildings (classroom and administration) would be five-story structures located to the west of the existing water feature, refer to Figure 6. Separate classroom and administration buildings would be located to the northwest of the water feature. A gymnasium and locker room building would be located to the south of the water feature. A police academy complex would be located in the southwest corner of the site that includes classroom buildings, an indoor firing range building, and operational facility.

Table 2:
Building Square Footage

Buildings	Square Footage
Main Campus Buildings (5-story Main and Wing)	494,000
Physical Education/Gymnasium/locker rooms	44,000
Police Academy Buildings	47,192
Ancillary Buildings (field storage, snack/ticket stands)	16,600
Total Gross Square Footage	**601,792 SF**

2.2.2 Access and Parking

Access to the site would be provided by a campus drive roadway that loops around the campus with Bailey Avenue intersections near the western and eastern edges of the campus, as shown on Figure 5. The main entrance would be at the western end of the campus. A portion of the property along Bailey Avenue will be dedicated to the City of San José for road right-of-way.

The college campus plans include a total of 1,163 parking spaces located within four parking areas, as shown on Figure 5. The largest parking area would be located on the western portion of the campus, between the campus drive loop road and the core campus of buildings. Parking for the police academy facility is located adjacent to it in the southwestern corner of the campus. The third parking area is located in the north central portion of the site between Bailey Avenue and the water feature. A fourth parking area is located between the campus drive loop road and the southern boundary in the south central portion of the site. This fourth parking area would serve as the location of the future parking structure, if needed to meet future demand.

2.2.3 Athletic Fields

A 391,852 square feet area of the site will be used for athletic fields. Two separate soccer fields are proposed; one near Bailey Avenue and one along the southern side of the campus. In addition, a combined football field/soccer field is proposed southeast of the water feature. This combined soccer/football field would be located within a track with spectator bleachers located on each side and stadium lighting. A baseball and softball field would be located near the northeastern corner of the campus. The baseball field is also proposed to be lighted for night games. A gymnasium and swimming pool is also proposed in the central portion of the site.

2.2.4 Landscaping

Landscaping including athletic fields is proposed to cover approximately 1,207,840 square feet of the site. Landscaped areas include the existing area surrounding the 110,900 square feet water feature located near the center of the campus, a large detention basin and other areas around the perimeter of the site, and around the parking lots and buildings.

2.2.5 Grading and Drainage

The existing relatively flat site would be graded to provide positive drainage for the campus. Generally, the site will be graded so that it will drain to the southeast corner of the campus where a detention basin will be created to accommodate the increased surface runoff. The detention basin will be at grade with fill added to create surrounding berms. The detention basin includes an area of approximately five acres. The soccer field in the southeastern corner of the site would be within the detention basin. A perimeter swale or ditch will be constructed on the western and southern side of the site to convey the existing sheet flows from adjacent property to the west that currently flows across the site. This ditch will include the only excavation required on-site. A perimeter berm would be constructed of fill to prevent storm water from adjacent properties from flowing on to the campus.

Grading will involve excavation of some areas of the site and filling of other areas. More fill material is required than can be generated from on-site excavation, as there will be very limited excavation. Approximately 447,000 cubic yards of fill material will be imported to the site. Fill depths will be as high as ten feet with an average fill depth of six feet. Buildings will be elevated on engineered fill. Maximum fill depths would be approximately ten feet deep where the police academy buildings are located. The campus drive loop road would be elevated on fill. The site will be graded to drain away from the existing water feature on the site and it would not be disturbed by grading.

2.2.6 Infrastructure

2.2.6.1 Water Service

Water service can be provided to the project site by the either San José Municipal Water System or Great Oaks Water Company. The potable water service main will be extended from the east where existing water mains are located in Santa Teresa Boulevard. A recycled water connection is not proposed at this time.

2.2.6.2 Sanitary Sewer

Sanitary sewer service would be provided by the City of San José. There is an existing 10-inch sanitary line located in Bailey Avenue (north side of the street) that services the IBM facility across Bailey Avenue from the site. A sanitary line would be constructed within the right-of-way of Bailey Avenue from the project site to the existing 10-inch line.

2.2.6.3 Natural Gas and Electric

The Pacific Gas and Electric Company (PG&E) supplies electricity and natural gas to the project area. There is a 21kv overhead facility on the south side of Bailey Avenue that extends to the project frontage. There is a natural gas main located in Santa Teresa Boulevard that terminates at Bailey

Avenue. Natural gas service for the project will be provided by extension of a gas line from Santa Teresa Boulevard to the site in Bailey Avenue. Electrical service for the project will be provided from the existing 21kv line located on the northern boundary of the site.

2.2.7 Project Phasing

The proposed campus is projected to be developed over a 12 plus year period in a series of phases corresponding to the availability of funds and growth of the student population. At this time only the Phase I plans are specifically defined.

2.2.7.1 Phase I Project Development

Phase I development includes approximately 450,800 square feet on the western side of the 55-acre project site. This phase of development would begin as soon as all development approvals and permits are received and would remain in operation during several subsequent phases, estimated to be between 2020 and 2025.[3]

Phase I of the project development will include approximately 20,000 square feet of campus buildings and a 467-space surface parking lot, as shown in Figure 7. The buildings will be one-story buildings that will include administration areas, lecture rooms, computer labs, science labs, art labs, meeting rooms and a multi-purpose room. As shown in Figure 7, access will be from Bailey Avenue.

The entire Phase I developed area will direct the storm water toward a vegetated swale to treat the storm water so it can be released into a four acre detention pond. The detention pond will then release the treated storm water across a weir that will discharge the water into an existing pond adjacent to the southern boundary of the site that connects to Fisher Creek via a system of ditches. This drainage system mimics the existing drainage of the site and adjacent properties with the storm water discharged into the adjacent pond at pre-development runoff flow rates.

[3] The Phase I Development would eventually be removed for the construction of the Master Site Plan.

2.3 PROJECT OBJECTIVES

The primary objective of the Gavilan Coyote Campus project is to develop a 10,000 (full-time equivalent) student campus in Coyote Valley to serve the existing and future needs of the District's population. Gavilan Joint Community College District has experienced two years (2006 – 2007) of unprecedented growth, 13 percent last year followed by 11 percent so far this current semester (fall 2007). There are several specific objectives to developing the Coyote Campus listed below:

1) Provide continuing college educational curriculum and services to the population of the Gavilan Joint Community College District that includes lecture halls, laboratories, administration facilities, and athletic fields.

2) Establish a campus within the northern sector of the Gavilan District to serve both existing and future students;

3) Recapture more than 1,800 existing Gavilan District students that currently drive past the proposed site and travel to other community college districts located to the north including West Valley-Mission, San José-Evergreen College District, and Foothill-DeAnza. A part of this objective is to reduce travel distances and travel times for students and also reduce the associated fuel energy consumption and air pollution emissions.

A specific objective of the first phase is to establish a learning center that will be approved by the state and to provide a police academy facility to train law enforcement officers. The police academy is needed to replace the existing police academy located at Evergreen Community College that will be discontinued.

2.4 USES OF THE EIR

The information contained in this EIR will be used by the Gavilan Joint Community College District (the CEQA Lead Agency) to consider whether or not to approve the proposed Campus Master Plan project. If the project is approved, the EIR will then be used by the Gavilan Joint Community College District (as school operator) in conjunction with various approvals and permits required to implement and establish a new college center.

Gavilan Joint Community College District	Board Approval
Chancellor's Office of the California Community Colleges and California Postsecondary Education Commission	Approval of Needs Study
Board of Governors of California Community Colleges	State Board Approval
State Department of Finance	Enrollment Approval for State Funding
City of San José	Encroachment Permit (Driveways, water main and sewer main) Project Dedication of Right-of-Way for Bailey Ave

Regional Water Quality Control Board	National Pollution Discharge Elimination System (NPDES) Permit (Industrial, Construction, and Municipal) Section 401 Clean Water Act Certification
U.S. Army Corps of Engineers (USACE)	Section 404 Permit
U.S. Fish and Wildlife Service (USFWS)	Section 7 Consultation

2.5 CONSISTENCY WITH ADOPTED PLANS AND POLICIES

This section complies with *CEQA Guidelines,* Section 15125(d), which requires an EIR to discuss any inconsistencies between the proposed project and applicable general plans and regional plans.

Gavilan Joint Community College District is the "lead agency" for processing the environmental review. Since the campus is located with in the corporate limits of the City of San José and its Urban Service Area, relevant City policies and other local and regional policies are discussed below.

2.5.1 San José 2020 General Plan

The *San José 2020 General Plan* (the General Plan) is the document that contains the City's official policies regarding the future character and quality of development in San José. The General Plan includes major strategies, as well as numerous policies that are designed to achieve the goals of the major strategies. The following text describes these General Plan strategies, goals, and policies that are applicable to the proposed facility, as well as any inconsistencies between them.

2.5.1.1 *Land Use/Transportation Diagram*

The General Plan Land Use/Transportation Diagram shows all of the existing and future land uses throughout San José, as well as the primary transportation network that supports such land uses. The land uses that are shown on the diagram are the product of comprehensive land use planning, with a goal of promoting efficient and compatible land use. The project site is shown on the City of San José Land Use/Transportation Diagram as within the City limits, Urban Service Area and Growth Boundary. The property is currently designated *Campus Industrial* on the City of San José Land Use/Transportation Diagram.

Consistency: The property is currently designated *Industrial Campus* in the San José General Plan and is zoned *A(PD) - Agricultural (Planned Development).* The project does not propose a General Plan amendment. The proposed project is consistent with this General Plan designation.

2.5.2 Bay Area 2005 Ozone Strategy

The Bay Area Air Quality Management District (BAAQMD), in cooperation with the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), prepared the *Bay Area 2005 Ozone Strategy* which serves as a roadmap for how the San Francisco Bay Area will achieve compliance with the State one-hour air quality standard for ozone as expeditiously as practicable and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The *Bay Area 2005 Ozone Strategy* updates Vehicle Miles Traveled (VMT) and other assumptions in the 2000 CAP related to the reduction of ozone in the atmosphere and serves as the current CAP for the Bay Area. The consistency of the proposed project with this regional plan is primarily a question of the consistency with the population/employment assumptions used in

developing the Ozone Strategy which were based on ABAG's *Projections 2003*.

Consistency: The proposed project would not result in an increase in housing within the region or a significant increase in jobs not foreseen in the current *San José 2020 General Plan* and CAP. For this reason, the proposed project is consistent with the CAP and the *Bay Area 2005 Ozone Strategy*.

2.5.3 Santa Clara Valley Congestion Management Program

The Santa Clara County Valley Transportation Authority (VTA) oversees the Santa Clara County Congestion Management Program (CMP). The relevant state legislation requires that all urbanized counties in California prepare a CMP in order to obtain each county's share of the increased gas tax revenues. The CMP legislation requires that each CMP contain five mandatory elements: 1) a system definition and traffic level of service standard element; 2) a transit service and standards element; 3) a trip reduction and transportation demand management element; 4) a land use impact analysis element; and 5) a capital improvement element. The Santa Clara County CMP includes the five mandated elements and three additional elements, including: a county-wide transportation model and data base element, an annual monitoring and conformance element, and a deficiency plan element.

Consistency: Consistent with CMP polices, the traffic analysis prepared for the project discussed impacts to the regional roadway system. As described in *Section 3.6, Transportation and Traffic*, the proposed project would significantly impact one CMP regional freeway segment under project conditions.

2.5.4 State Water Quality Control Board National Pollutant Discharge Elimination System Permit

The Federal Clean Water Act requires local municipalities to implement measures to control construction and post-construction pollution entering local storm drainage systems to the maximum extent practicable. To comply with the requirements of the Federal Clean Water Act, the State Water Resources Control Board (SWRCB) implemented a National Pollution Discharge Elimination System (NPDES) permit for the Santa Clara Valley. Subsequent to implementation of the permit, the San Francisco Regional Water Quality Control Board (RWQCB) issued a Municipal Storm Water NPDES Permit to fifteen co-permittees. The fifteen co-permittees are the City of San José, twelve other municipalities within the Santa Clara Basin watershed area, the County of Santa Clara, and the Santa Clara Valley Water District (SDVWD). Two programs, the Nonpoint Source Pollution Program and the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), have been implemented under the NPDES permit to regulate construction and post-construction runoff.

2.5.4.1 *Nonpoint Source Pollution Program*

In 1988, the SWRCB adopted the Nonpoint Source Management Plan in an effort to control nonpoint source pollution in California. In December 1999, the Plan was updated to comply with the requirements of Section 319 of the Clean Water Act and Section 6217 of the Coastal Zone Act Reauthorization Amendment of 1990. The Nonpoint Source Management Program requires individual permits to control discharge associated with construction activities. The Nonpoint Source Program is administered by the RWQCB under the NPDES General Permit for Construction Activities. Projects must comply with the requirements of the Nonpoint Source Program if:

- they disturb one or more acres of soil; or
- if they disturb less than one acre of soil but are part of a larger development that, in total, disturbs one acre or more of soil.

The NPDES General Permit for Construction Activities requires the developer to submit a Notice of Intent (NOI) to the RWQCB and to develop a Stormwater Pollution Prevention Plan (SWPPP) to control discharge associated with construction activities.

2.5.4.2 *Santa Clara Valley Urban Runoff Pollution Prevention Program*

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) was developed by the RWQCB to assist co-permittees in implementing the provisions of the NPDES permit. This program was also designed to fulfill the requirements of Section 304(1) of the Federal Clean Water Act, which mandated that the Environmental Protection Agency develop NPDES application requirements for storm water runoff. The Program's Municipal NPDES storm water permit includes provisions requiring regulation of storm water discharges associated with new development and development of an area-wide watershed management strategy. The permit also identifies recommended actions for the preservation, restoration, and enhancement of the San Francisco Bay Delta Estuary.

Consistency: The proposed project would disturb approximately 55 acres of surface soils. The proposed college campus would increase the amount of impervious surfaces on site. The project would implement all applicable stormwater best management practices during and after construction. The project will submit a Notice of Intent and develop a Stormwater Pollution Prevention Plan (SWPPP) prior to construction grading on the site. The proposed project will be designed to comply with the SCVURPPP. Therefore, the proposed project is consistent with these policies. For a detailed discussion of this issue, please see *Section 3.7 Hydrology and Water Quality*.

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

The City of San José, County of Santa Clara, Valley Transportation Authority, Santa Clara Valley Water District, and Cities of Gilroy and Morgan Hill, initiated a collaborative process to prepare and implement a joint Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) to promote the recovery of endangered species while accommodating planned development and infrastructure. The Local Partners, in association with regulatory wildlife agencies, including the U.S. Fish and Wildlife Service, California Department of Fish and Game, and National Marine Fisheries Service, are in the process of developing a long-range plan to protect and enhance ecological diversity and functions within more than 500,000 acres of southern Santa Clara County.

The HCP is being prepared in accordance with Section 10 of the Federal Endangered Species Act which is administered by the USFWS. The NCCP is being prepared in accordance with the California Natural Community Conservation Planning Act and the California Endangered Species Act which are administered by the Department of Fish and Game. As required by the California Natural Community Conservation Planning Act, a Planning Agreement was developed between the California Department of Fish and Game, USFWS and the Local Partners.

Once the plan is approved, resource agencies responsible for permitting land disturbing activities (including the California Department of Fish and Game, the U.S. Fish and Wildlife Service and the

National Marine Fisheries Service) will issue permits to local agencies to allow limited impacts to endangered species. Local agencies will then administer the endangered species permits for specific projects rather than having permits issued by a State and/or federal agency.

Consistency: As discussed in *Section 3.8 Biological Resources*, the proposed project will result in impacts to wildlife species, and habitat for some species, that are proposed for coverage under the developing Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP). Such species include the California tiger salamander and species that may occur on the site only occasionally, such as the Golden Eagle, Burrowing Owl, and Tricolored Blackbird. The project does not conflict with the conservation strategy for this area that is being developed by the Santa Clara Valley HCP/NCCP.

3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

3.1 LAND USE

3.1.1 Existing Setting

The proposed project site currently consists of active agricultural uses with field crops under cultivation across the site, except for a centrally located pond with a small island. There are a few trees along the northwestern boundary and adjacent to the pond.

North and northwest of the project site is Bailey Avenue, which transitions from a four-lane roadway to two-lane roadway adjacent to the project site. Across Bailey Avenue to the north is the IBM Santa Teresa Laboratory facility, and Santa Teresa foothills. Farther east on the north side of Bailey Avenue is an AT&T central office building. West, east and south of the project site are privately owned ranchlands and cultivated fields. The Santa Teresa hills lie to the west and north of the site forming the western and northern edges of Coyote Valley. East of the project site is Fisher Creek, Spreckles Hill, and Santa Teresa Boulevard, a roadway with no sidewalks or landscape vegetation. South of Bailey Avenue, Santa Teresa Boulevard narrows to one lane in each direction and north of Bailey Avenue it is a four-lane roadway. See Figure 3.

According to the U.S. Department of Agriculture, the project site is designated as "Grazing Land". Grazing Land is defined as land on which the existing vegetation is suitable for grazing of livestock. The minimum mapping unit for this category is 40 acres.

The project site is located within the City of San José. It is shown on the City of San José General Plan Land Use Transportation/Diagram as being with the City limits, Urban Service Area and Urban Growth Boundary. The property is currently designated *Industrial Campus* in the San José General Plan and is zoned *A(PD) - Agricultural (Planned Development)*. The specific Planned Development zoning is for campus industrial development.

3.1.2 Land Use Impacts

3.1.2.1 *Thresholds of Significance*

For the purposes of this EIR, a significant land use impact will occur if the project would:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resource Agency, to non-agricultural use; or
- conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- 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
- physically divide an established community; or
- conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- conflict with any applicable habitat conservation plan or natural community conservation plan.

3.1.2.2 *Land Use Compatibility Conflicts*

Land use compatibility conflicts can arise from two basic causes: 1) a new development or land use may cause impacts to persons or the physical environment in the vicinity of the project site or elsewhere; or 2) conditions on or near the project site may have impacts on the persons or development introduced onto the site by the new project. Both of these circumstances are aspects of land use compatibility. Incompatibility may arise from placing a particular development or land use at an inappropriate location, or from some aspect of the project's design or scope. An example of incompatibility would be the introduction of excessive noise or vibration adjacent to a hospital or school. Depending on the nature of the impact and its severity, land use compatibility conflicts can range from minor irritations and nuisance to potentially significant effects on human health and safety. The discussion below distinguishes between impacts from the proposed project upon persons and the physical environment (from the project) and the impacts from the project's surroundings upon the proposed project itself (to the project).

3.1.2.3 *Impacts from the Project*

The proposed college campus will change the character of the project site. The project will replace agricultural uses with a community college campus. These land use changes constitute an intensification of use and will have a variety of potential effects, as discussed below.

Activity on and around the site will increase, as would traffic in the vicinity. The construction phase of the new development would also create noise, activity, and dust. Short-term impacts from construction will primarily affect office/industrial development across Bailey Avenue to north of the site. The closest residences are located over 4,400 feet west and south of the project site. Construction impacts could include noise, dust, and localized traffic congestion from equipment movement, as discussed in greater detail in *Section 3.3 Air Quality*, *3.4 Noise,* of this EIR. While construction traffic or noise may be a temporary nuisance at some of these locations, they would not constitute a significant land use compatibility impact.

Implementation of the proposed project would result in impacts to wetland areas and biological resources. These impacts are specifically addressed in *Section 3.8 Biological Resources*.

Most of the adjacent and surrounding area is currently used for agricultural production. Given that existing IBM Campus and agricultural uses have been compatible uses for many years, the addition of the proposed college campus use on the site will not substantially affect ongoing agricultural uses in the immediate surrounding area. **[Less Than Significant Impact]**

Loss of Agricultural Land

The project site is currently used for dry farmed oats and dry farmed wheat. In order to determine the loss of agricultural production that would result form the project, a Land Evaluation and Site Assessment (LESA) was completed for this project[4] per the methods prescribed by the California Agricultural Land Evaluation and Site Assessment Model Instruction Manual[5] (1997). The following is a brief LESA definition and history, and a description of the factors analyzed in determining the final LESA score.

[4] This report is located in Appendix A of this EIR.
[5] California Department of Conservation, 1997, California Agricultural Land Evaluation and Site Assessment Model Instruction Manual.

Land Evaluation and Site Assessment (LESA) is a term used to define an approach for rating the relative quality of land resources based upon specific measurable features. The formulation of a California Agricultural LESA Model is the result of Senate Bill 850 (Chapter 812/1993), which charges the Resources Agency, in consultation with the Governor's Office of Planning and Research, with developing and amendment to Appendix G of the California Environmental Quality Act (CEQA) Guidelines concerning agricultural lands. Such an amendment is intended "to provide lead agencies with an optional methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process" (Public Resources Code Section 21095).

The California Agricultural LESA Model is composed of six different factors. Two Land Evaluation factors are based upon measures of soil resource quality. Four Site Assessment factors provide measures of a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. For a given project, each of these factors is separately rated on a 100 point scale. The factors are then weighted relative to one another and combined, resulting in a single numeric score for a given project, with a maximum attainable score of 100 points. It is this project score that becomes the basis for making a determination of a project's potential significance, based upon a range of established scoring thresholds. This Manual provides detailed instructions on how to utilize the California LESA Model, and includes worksheets for applying the Model to specific projects.

The project site received a Total LESA Score of 45.9 points. Projects with a Total LESA Score between 40 and 59 points are considered significant only if Land Evaluation Factor and Site Assessment sub scores are both greater than or equal to 20 points. For this project, only the Total Land Evaluation Score is higher than 20 points, (refer to Appendix A for a more detailed discussion). Accordingly, the project's effect on conversion of agricultural lands is not considered significant. This is largely due to the fact that the parcel is not presently irrigated with any developed and dependable irrigation water supply. Considering the very high land costs, economic returns would not justify irrigation system development. Also contributing to a relatively low Total LESA Score is the fact that the immediately adjacent parcels within the Zone of Influence (ZOI)[6] are primarily oak-woodland/rangeland, with only a limited area currently growing agricultural crops.

Based upon the project site's LESA score and that the project site is not Prime Farmland, Unique Farmland or Farmland of Statewide Importance, the project's conversion of agricultural land would not result in a significant land use impact. **[Less Than Significant Impact]**

3.1.2.4 *Impacts to the Project*

As mentioned above, the project area is surrounded by agricultural uses and the IBM office campus. These uses are compatible with the proposed college campus and would not adversely affect the project. The existing agricultural operations have co-existed with the IBM campus for over 25 years and the additional of the college campus should not add any new constraints on the agricultural operations.

Since Gavilan is a California State school district, and is not subject to conformance with zoning

[6] The ZOI includes the area of parcels within 0.25 (1/4) miles of the project site. There are 12 parcels within the project's ZOI.

ordinances pursuant to Government Code Section 53094(b), the design and construction of the new buildings on the community college campus will be processed through the State of California, Department of General Services, Division of the State Architect (DSA). Services provided by DSA include Title 24 plan check, ADA access compliance, inspection and testing. The State Fire Marshall also checks plans and completes inspection for all fire life safety issues. The local fire district will be provided a set of plans and have opportunity to make comments and suggestions with respect to access and fire life safety issues. In addition, the project will not conflict with any applicable land use plans or established mitigation plans.

Although planned for urban uses under the San José General Plan, most of the surrounding area is currently used for agricultural production. Given the purpose of the proposed project, the project will not be substantially affected by ongoing agricultural production uses in the immediate area. The project would not result in a significant land use compatibility impact from existing uses. **[Less Than Significant Impact]**

3.1.3 Conclusion

The proposed project will not result in significant land use impacts. **[Less Than Significant Impact]**

3.2 TRANSPORTATION

The following discussion is based upon a transportation impact analysis prepared by *Hexagon Transportation Consultants* in May 2007. This report is located in Appendix B of this EIR.

3.2.1 Existing Setting

The transportation system includes the roadway network, bicycle and pedestrian facilities, and transit system.

3.2.1.1 *Existing Roadway Network*

The existing roadway network serving the project area includes regional roadway facilities and local roadway facilities. Regional access to the project site is provided via US 101 and State Route (SR) 85. The roadway network is shown on Figure 8.

US 101 is an eight-lane freeway (three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction) north of Cochrane Road. Existing access to and from the project area is provided via interchanges at Bailey Avenue, Bernal Road/Silicon Valley Boulevard, and Cochrane Road.

SR 85 is a north-south freeway that extends from Mountain View south to San José, terminating at US 101, about four miles north of the project site. SR 85 is six lanes wide operating with four mixed-flow lanes and two HOV lanes. Access to SR 85 from the project area is provided via US 101 and an interchange at Bernal Road/Silicon Valley Boulevard.

Local access to the project area is provided by Monterey Road, Santa Teresa Boulevard, Bernal Road, and Bailey Avenue.

Monterey Road is a six-lane major arterial north of Blossom Hill Road and a four-lane major arterial south of Blossom Hill Road. Monterey Road extends from Market Street in downtown San José, to US 101 south of the City of Gilroy. The arterial runs directly through Coyote Valley providing direct access to the project area with its intersection with Bailey Avenue. Cochrane Road in Morgan Hill provides access from Monterey Road to US 101.

Bernal Road is a divided six lane east-west arterial that extends from its ramps at US 101 west to Santa Teresa Boulevard.

Santa Teresa Boulevard is a six lane north-south arterial from Blossom Hill Road to Bernal Road. Between Bernal Road and Bailey Avenue in the Coyote Valley region of San José the arterial transitions down to four lanes. South of Bailey Avenue, Santa Teresa narrows to one lane in each direction and becomes Hale Avenue in Morgan Hill. Santa Teresa Boulevard runs directly through the center of Coyote Valley and provides access to all major roadways.

Bailey Avenue is a two lane east-west roadway between Monterey Road and Santa Teresa Boulevard. West of Santa Teresa the roadway widens to four lanes to the west entrance of the existing IBM site at which point it transitions back down to one lane in each direction. Between the IBM site and McKean Road, Bailey Avenue is often referred to as "Bailey over the Hill" since it winds through the hills surrounding the Calero Reservoir area. Bailey Avenue provides direct access to the project site.

3.2.1.2 *Existing Pedestrian and Bicycle Facilities*

The project area is does not have many nearby bicycle facilities. Bike lanes are provided along Santa Teresa Boulevard between Cottle Road and Bayliss Drive, north of Coyote Valley. There is also a Santa Clara County pedestrian/bike trail that runs along Coyote Creek from the Edenvale Area of San Jose to the south, through Coyote Valley, ending near Anderson Reservoir in Morgan Hill. Bike lockers and bike racks are provided at the Santa Teresa LRT station (located about four miles north of the site).

The only pedestrian facility within the project area is the previously described pedestrian/bike trail along Coyote Creek.

3.2.1.3 *Existing Transit Facilities*

Existing transit service to the study area is provided by the Santa Clara Valley Transportation Authority (VTA).

Bus Service

The project area is only served directly by one local bus route that is one half mile east of the site on Santa Teresa Boulevard. The 68 line provides service between Gavilan College in Gilroy and the Diridon CalTrain Station in San José via Monterey Road and Santa Teresa Boulevard, with 15-minute headways during commute hours. The project area is also served by one express bus. Express bus 182 operates on 35-40 minute headways during commute hours between Palo Alto and IBM/Bailey Avenue. The 806 IBM Shuttle also operates in the study area and provides service between the IBM facility (across Bailey Avenue from the project site) and the intersection of Cottle Avenue and Santa Teresa Boulevard, including a stop at the Santa Teresa LRT station.

Light Rail Transit (LRT) Service

There is no LRT service within the Coyote Valley area. The nearest LRT station is the Santa Teresa LRT station situated on the Guadalupe Corridor LRT line, located near Santa Teresa Boulevard and San Ignacio Avenue, approximately four miles north of Coyote Valley. Connections from the LRT station to the project area are provided by VTA's Route 68 bus line and 806 IBM Shuttle.

CalTrain

Commuter rail service between San Francisco and Gilroy is provided by CalTrain. The nearest CalTrain stations are located a few miles from the project area; the Blossom Hill station, located near Monterey Road and Blossom Hill Road, and the Morgan Hill Station located within downtown Morgan Hill. CalTrain provides four northbound trains during the morning commute period and four southbound trains during the evening commute period.

3.2.1.4 *Existing Traffic Operations*

This traffic study includes an analysis of 26 signalized intersections, seven unsignalized intersections, and 30 directional freeway segments in the vicinity of the project site. Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of traffic. The AM peak hour of traffic is generally between 7:00 and 9:00 AM, and the PM peak hour

is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average day.

Methodologies and Level of Service Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The correlation between average delay and level of service is shown in Table 3.

Signalized Intersections

Since study intersections are located in both the Cities of San José and Morgan Hill, each intersection was evaluated against applicable municipal standards. Each of the cities' level of service methodology for signalized intersections is the 2000 *Highway Capacity Manual* (HCM) method, which is applied using the TRAFFIX software. The 2000 HCM operations method, via TRAFFIX, evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX is also the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program (CMP)-designated intersection level of service methodology, each of the cities' methodology employs the CMP default values for the analysis parameters.

Table 3:
Signalized Intersection Level of Service Definitions Based on Delay

LOS	Description	Average Control Delay per Vehicle (Sec.)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	10.0 or less
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C/ ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.0 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	Greater than 80.0

Freeway Segments

As prescribed in the CMP technical guidelines, the level of service for freeway segments is estimated based on vehicle density. The vehicle density on a segment is correlated to level of service as shown in Table 4. The CMP requires that mixed-flow lanes and auxiliary lanes be analyzed separately from HOV (carpool) lanes. The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for segments six lanes or wider in both directions and a capacity of 2,200 vphpl be used for segments four lanes wide in both directions. The CMP defines an acceptable level of service for freeway segments as LOS E or better.

Table 4:
Freeway Level of Service

Level of Service	Density (vehicles/mile/lane)
A	≤ 11.0
B	11.0 to 18.0
C	18.1 to 26.0
D	26.1 to 46.0
E	46.1 to 58.0
F	> 58.0

Unsignalized Intersections

For unsignalized intersections an assessment is made of the need for signalization of the intersection. This assessment is made on the basis of the Peak-Hour Volume Signal Warrant, described in the California *Manual on Uniform Traffic Control Devices* (MUTCD), adopted in September 2006. This method makes no evaluation of intersection level of service, but simply provides an indication whether peak-hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal.

Existing Intersection Levels of Service

Existing intersection lane configurations and peak-hour turning movement volumes were used to calculate the LOS for the key intersections during each peak hour. Results indicate that all study intersections are currently operating at acceptable levels. The results of the level of service analysis under existing conditions are summarized in Table 5.

Table 5:
Existing Intersection Levels of Service

Intersection	Peak Hour	Average Delay	LOS
1. Monterey Road and Metcalf Road	AM	9.8	A
	PM	17.5	B
2. Monterey Road and Blanchard Road	AM	6.9	A
	PM	10.4	B
3. Monterey Road and Bailey Avenue (N)	AM	10.6	B
	PM	11.8	B
4. Monterey Road and Bailey Avenue (E)	AM	26.5	C
	PM	25.9	C

Table 5:
Existing Intersection Levels of Service

Intersection	Peak Hour	Average Delay	LOS
5. Monterey Road and Palm Avenue	AM	14.6	B
	PM	15.0	B
6. Monterey Road and Live Oak Avenue	AM	11.6	B
	PM	12.5	B
8. US 101 and Bailey Avenue (W)	AM	18.6	B
	PM	14.7	B
9. Santa Teresa Boulevard and Bailey Avenue	AM	26.7	C
	PM	35.8	D
10. US 101 and Bernal Road (E)	AM	21.2	C
	PM	17.9	B
11. US 101 and Bernal Road (W)*	AM	9.8	A
	PM	11.9	B
12. SR 85 and Bernal Road*	AM	20.1	C
	PM	30.5	C
13. Monterey Road and Bernal Road (E)*	AM	10.5	B
	PM	13.8	B
14. Monterey Road and Bernal Road (N)*	AM	21.5	C
	PM	23.4	C
15. Monterey Road and Bernal Road (S)*	AM	4.5	A
	PM	5.5	A
16. San Ignacio Avenue and Bernal Road	AM	19.5	B
	PM	28.4	C
17. Santa Teresa Boulevard and Bernal Road*	AM	33.9	C
	PM	33.5	C
18. Santa Teresa Boulevard and Chantilly Lane	AM	14.4	B
	PM	19.0	B
19. Santa Teresa Boulevard and Avenida Espana	AM	21.5	C
	PM	20.0	C
20. Monterey Road and Menard Drive	AM	12.0	B
	PM	8.5	A
21. Monterey Road and Monterey Circle	AM	13.4	B
	PM	13.5	B
22. Monterey Road and Tilton Avenue	AM	15.7	B
	PM	20.3	C
23. Monterey Road and Madrone Parkway	AM	10.8	B
	PM	10.8	B
24. Monterey Road and Cochrane Road	AM	28.2	C
	PM	28.3	C
25. US 101 and Cochrane Road (W)	AM	11.2	B
	PM	13.0	B
26. US 101 and Cochrane Road (E)	AM	10.9	B
	PM	10.2	B

CMP intersection is denoted with an asterisk (*).

Existing Freeway Levels of Service

Traffic volumes for the subject freeway segments were obtained from the 2005 CMP Annual Monitoring Report. The results of the analysis are summarized in Table 6. The results show that the mixed-flow lanes on 4 of the 30 directional freeway segments analyzed currently operate at an unacceptable LOS F during at least one of the peak hours. All other freeway segments analyzed operate at LOS E or better during the AM and PM peak hours.

Table 6:
Mixed Flow-Lanes: Existing Freeway Segment Levels of Service

Freeway	Segment	Capacity (vph)	Peak Hour	LOS
NB US 101	San Martin Ave and Tennant Ave	6,900	AM	C
			PM	B
	Tennant Ave and East Dunne Ave	6,900	AM	F
			PM	D
	East Dunne Ave and Cochrane Rd	6,900	AM	E
			PM	C
	Cochrane Rd and Coyote Creek Golf Dr	6,900	AM	D
			PM	C
	Coyote Creek Golf Dr and Bailey Ave	6,900	AM	D
			PM	C
	Bailey Ave and Coyote Valley Parkway	6,900	AM	D
			PM	C
	Coyote Valley Parkway and SR 85	6,900	AM	D
			PM	C
	SR 85 and Bernal Rd	6,900	AM	C
			PM	C
	Bernal Rd and Silver Creek Rd	6,900	AM	D
			PM	C
	Silver Creek Rd and Hellyer Ave	6,900	AM	F
			PM	D
	Hellyer Ave and Yerba Buena Rd	6,900	AM	E
			PM	D
	Yerba Buena Rd and Capitol Expwy	6,900	AM	F
			PM	C
SB US 101	San Martin Ave and Tennant Ave	6,900	AM	B
			PM	C
	Tennant Ave and East Dunne Ave	6,900	AM	C
			PM	D
	East Dunne Ave and Cochrane Rd	6,900	AM	C
			PM	D
	Cochrane Rd and Coyote Creek Golf Dr	6,900	AM	C
			PM	D
	Coyote Creek Golf Dr and Bailey Ave	6,900	AM	C
			PM	D

Table 6:
Mixed Flow-Lanes: Existing Freeway Segment Levels of Service

Freeway	Segment	Capacity (vph)	Peak Hour	LOS
	Bailey Ave and Coyote Valley Parkway	6,900	AM	C
			PM	C
	Coyote Valley Parkway and SR 85	9,200	AM	C
			PM	C
	SR 85 and Bernal Rd	6,900	AM	B
			PM	D
	Bernal Rd and Silver Creek Rd	6,900	AM	B
			PM	C
	Silver Creek Rd and Hellyer Ave	6,900	AM	C
			PM	C
	Hellyer Ave and Yerba Buena Rd	6,900	AM	D
			PM	D
	Yerba Buena Rd and Capitol Expwy	6,900	AM	C
			PM	C
NB SR 85	Bernal Rd and Cottle Rd	4,400	AM	B
			PM	C
	Cottle Rd and Blossom Hill Rd	4,400	AM	D
			PM	D
	Blossom Hill Rd and SR 87	4,400	AM	F
			PM	D
SB SR 85	Bernal Rd and Cottle Rd	4,400	AM	B
			PM	D
	Cottle Rd and Blossom Hill Rd	4,400	AM	D
			PM	D
	Blossom Hill Rd and SR 87	4,400	AM	D
			PM	E

Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2005.

3.2.1.5 *Background Conditions*

The following discussion describes background traffic conditions in the project area, which are conditions anticipated to exist prior to completion of the proposed project. Traffic volumes for background conditions comprise existing volumes plus traffic generated by approved but not yet constructed projects (including various scenarios of the Coyote Valley Research Park (CVRP) development[7]). Background conditions also include planned intersection or roadway improvements, such as improvements required as mitigation for previously approved projects that have not yet been constructed.

The assumed roadway network varies slightly for each of the background scenarios. The following are descriptions of roadway network adjustments assumed for each background scenario:

[7] The CVRP project located in North Coyote Valley was approved in April 2002, but has yet to begin construction.

Background Without CVRP - It is assumed in this analysis that the transportation network under background conditions without CVRP would be the same as the existing transportation network.

Background With Partial CVRP - It is assumed in this analysis that the transportation network under background conditions with Partial CVRP would include improvements identified as being needed to serve two million square feet of the CVRP development. The improvements to be constructed by the CVRP development include the following:

Santa Teresa Boulevard and Bernal Road - Addition of second westbound left-turn lane to the intersection.

Santa Teresa Boulevard and Bayliss Drive - A signal will be installed.

Santa Teresa Boulevard and Cheltenham Way - A signal will be installed.

Bailey Avenue - Widen Bailey Avenue to four lanes between Monterey Road and Santa Teresa Boulevard and make associated improvements at the Santa Teresa Boulevard and Bailey Avenue intersection.

Background With Full Buildout of CVRP - It is assumed in this analysis that the transportation network under background conditions with Full Buildout of CVRP would include improvements identified as being needed to serve the buildout of the CVRP development. The improvements to be constructed by the CVRP development buildout include the improvements described above, as well as the following:

Monterey/Bailey Interchange Completion - The southern half of the Monterey/Bailey interchange is to be completed with full buildout of CVRP. The new interchange will eliminate the existing signalized intersection on Bailey Avenue, Monterey/Bailey (East), and create a new signalized intersection, Monterey/Bailey (South) along Monterey Road.

Monterey/Calle de Cisco Interchange - A new partial grade-separated interchange on Monterey Road, north of Bailey Avenue, will be constructed as part of the full buildout of the CVRP development. The interchange will provide access to the central portion of the CVRP site and Coyote Valley from Monterey Road with two new intersections immediately north and south of the new street of Calle de Cisco.

US 101 and Bailey Avenue (East) - A signal will be installed.

IBM Entrance (East) and Bailey Avenue - A signal will be installed.

IBM Entrance (West) and Bailey Avenue - A signal will be installed.

McKean Road and Bailey Avenue - A signal will be installed.

Hale Avenue and Tilton Avenue - A signal will be installed.

Background Traffic Volumes

Background peak-hour traffic volumes for each scenario were calculated by adding to existing volumes the estimated traffic from approved but not yet constructed developments and the various CVRP development levels. The added traffic from approved but not yet constructed developments was obtained from the CVSP traffic study.

Background Intersection Levels of Service

The results of the intersection level of service analysis under background conditions are summarized in Table 7. The results show that all of the signalized study intersections, with the exception of US 101 and Bernal Road (east), would operate at acceptable levels under each of the background condition scenarios.

Table 7:
Background Intersection Levels of Service

Intersection	Peak Hour	Existing		Without CVRP		With Partial CVRP		With Full Buildout CVRP	
		Ave. Delay	LOS	Ave. Delay	LOS	Ave. Delay	LOS	Ave. Delay	LOS
1. Monterey Road and Metcalf Road	AM	9.8	A	11.7	B	9.1	A	6.8	A
	PM	17.5	B	17.7	B	13.3	B	9.7	A
2. Monterey Road and Blanchard Road	AM	6.9	A	6.4	A	6.0	A	4.0	A
	PM	10.4	B	8.1	A	6.4	A	6.2	A
3. Monterey Road and Bailey Avenue (N)	AM	10.6	B	10.6	B	12.3	B	15.6	B
	PM	11.8	B	11.8	B	12.5	B	11.9	B
4. Monterey Road and Bailey Avenue (E)	AM	26.5	C	26.5	C	21.6	C	N/A	N/A
	PM	25.9	C	25.9	C	19.3	B	N/A	N/A
5. Monterey Road and Palm Avenue	AM	14.6	B	14.6	B	13.6	B	11.6	B
	PM	15.0	B	15.0	B	13.1	B	10.7	B
6. Monterey Road and Live Oak Avenue	AM	11.6	B	11.6	B	10.7	B	8.7	A
	PM	12.5	B	12.5	B	11.1	B	9.0	A
8. US 101 and Bailey Avenue (W)	AM	18.6	B	18.6	B	21.5	C	20.9	C
	PM	14.7	B	14.7	B	11.1	B	20.4	C
9. Santa Teresa Blvd and Bailey Avenue	AM	26.7	C	27.9	C	38.7	D	42.2	D
	PM	35.8	D	36.8	D	41.3	D	40.3	D
10. US 101 and Bernal Road (E)	AM	21.2	C	151.2	F	152.6	F	155.6	F
	PM	17.9	B	69.0	E	69.4	E	70.3	E
11. US 101 and Bernal Road (W)*	AM	9.8	A	12.9	B	12.9	B	12.9	B
	PM	11.9	B	9.0	A	9.0	A	9.0	A
12. SR 85 and Bernal Road*	AM	20.1	C	30.5	C	34.0	C	47.6	D
	PM	30.5	C	46.7	D	48.2	D	57.0	E
13. Monterey Road and Bernal Road (E)*	AM	10.5	B	12.0	B	12.0	B	11.7	B
	PM	13.8	B	11.9	B	11.9	B	11.9	B
14. Monterey Road and Bernal Road (N)*	AM	21.5	C	21.0	C	21.7	C	25.0	C
	PM	23.4	C	21.2	C	23.5	C	27.3	C
15. Monterey Road and Bernal Road (S)*	AM	4.5	A	4.4	A	4.3	A	4.2	A
	PM	5.5	A	5.3	A	4.6	A	4.9	A

Table 7:
Background Intersection Levels of Service

Intersection	Peak Hour	Existing		Without CVRP		With Partial CVRP		With Full Buildout CVRP	
		Ave. Delay	LOS	Ave. Delay	LOS	Ave. Delay	LOS	Ave. Delay	LOS
16. San Ignacio Ave and Bernal Road	AM	19.5	B	22.1	C	22.2	C	22.7	C
	PM	28.4	C	35.5	D	35.5	D	35.6	D
17. Santa Teresa Blvd and Bernal Road*	AM	33.9	C	35.2	D	34.7	C	34.2	C
	PM	33.5	C	31.6	C	34.1	C	37.0	D
18. Santa Teresa Blvd and Chantilly Lane	AM	14.4	B	13.2	B	13.0	B	9.9	A
	PM	19.0	B	15.9	B	14.4	B	10.7	B
19. Santa Teresa Blvd and Avenida Espana	AM	21.5	C	20.7	C	20.1	C	14.3	B
	PM	20.0	C	19.9	B	17.5	B	13.3	B
20. Monterey Road and Menard Drive	AM	12.0	B	10.8	B	9.8	A	8.9	A
	PM	8.5	A	7.4	A	7.6	A	7.5	A
21. Monterey Road and Monterey Circle	AM	13.4	B	8.5	A	7.8	A	8.7	A
	PM	13.5	B	9.9	A	9.9	A	11.2	B
22. Monterey Road and Tilton Avenue	AM	15.7	B	16.0	B	15.7	B	15.4	B
	PM	20.3	C	21.1	C	20.1	C	18.1	B
23. Monterey Road and Madrone Parkway	AM	10.8	B	10.7	B	10.5	B	10.3	B
	PM	10.8	B	10.8	B	10.2	B	9.2	A
24. Monterey Road and Cochrane Road	AM	28.2	C	29.6	C	28.8	C	27.5	C
	PM	28.3	C	29.1	C	27.6	C	26.8	C
25. US 101 and Cochrane Road (W)	AM	11.2	B	11.6	B	11.6	B	11.6	B
	PM	13.0	B	16.0	B	16.6	B	18.7	B
26. US 101 and Cochrane Road (E)	AM	10.9	B	11.1	B	11.2	B	11.3	B
	PM	10.2	B	10.6	B	10.6	B	10.6	B

CMP intersection is denoted with an asterisk (*).

3.2.2 Transportation Impacts

For this analysis there are four sets of relevant criteria for impacts on intersections and freeway segments. These are based on (1) the City of San José (CSJ) Level of Service standards, and (2) the City of Morgan Hill (MH) Level of Service standards, (2) the CMP Level of Service standards, and (3) the CMP Freeway Segment Level of Service standards.

3.2.2.1 *Thresholds of Significance*

City of San José Definition of Significant Intersection Impacts

All intersections within the City of San José, including CMP designated intersections, are required to meet the City's LOS standard of LOS D, expect for intersections that have been exempted from the LOS policy ("protected") such as those in Downtown San Jose, North San Jose and others.

For the purposes of this EIR, a traffic impact to a signalized intersection is considered significant if the project would:

- cause the level of service at any non-protected (exempt) City of San José intersection operating at LOS D or better under Background Conditions to deteriorate to LOS E or F; or
- cause an increase in the critical movement delay at any "non-protected" (exempt) City of San José intersection operating at LOS E or F under Background Conditions of four (4) or more seconds and an increase in the critical V/C ratio by 0.01 or more.
- cause the level of service at a regional CMA intersection operating at LOS E or better under Background Conditions to deteriorate to LOS F; or
- cause an increase in the critical movement delay at any regional CMA intersection operating at LOS F under Background Conditions of four (4) or more seconds and an increase in the critical V/C ratio by 0.01 or more; or
- cause a freeway segment to operate at LOS F, or contribute traffic in excess of one percent (1%) of segment capacity to a freeway segment already operating at LOS F; or
- impede the development or function of planned pedestrian or bicycle facilities; or
- conflict with adopted plans or policies supporting alternative transportation; or
- create an operational safety hazard.

An exception to this rule applies when the addition of project traffic reduces the amount of average control delay for critical movements (i.e. the change in average control delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

City of Morgan Hill Intersection LOS Standard and Impact Criteria

All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D+, with the exception of the following:

- For the intersections of Madrone Parkway and Monterey Road, Watsonville Road and Monterey Road, Butterfield Boulevard and Tennant Avenue, the LOS standard of D must be met;

- All freeway ramp intersections are required to meet an LOS standard of E.

The project is said to create a significant adverse impact on traffic conditions at non-CMP signalized intersections if for either peak hour:

- The level of service at the intersection degrades from an acceptable LOS (D+, D, or E as described above) or better under background conditions to an unacceptable LOS E or F under project conditions, or

- The level of service at the intersection is an unacceptable LOS D or worse under background conditions and the addition of project trips causes both the critical-movement delay at the intersection to increase by four or more seconds and the demand-to-capacity ratio (V/C) to increase by .01 or more.

An exception to this rule applies when the addition of project traffic reduces the amount of average control delay for critical movements (i.e. the change in average control delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

CMP Definition of Significant Intersection Impacts

The definition of a significant impact at a CMP intersection is the same as for the City of San José, except that the CMP standard for acceptable level of service at a CMP intersection is LOS E or better. A significant impact by CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection conditions to LOS E or better.

CMP Definition of Significant Freeway Segment Impacts

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

- The level of service on the freeway segment is an unacceptable LOS F under project conditions, and
- The number of project trips on that segment constitutes at least one percent of capacity on that segment.
- The level of service on the freeway segment degrades from an acceptable LOS under existing conditions to an unacceptable LOS F under project conditions.

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

3.2.2.2 *Project Trip Estimates*

Project traffic is added to the roadway system using a three-step process: (1) estimated trip generation, (2) trip distribution, and (3) trip assignment. Step one (trip generation) estimates the amount of added traffic to the roadway network. The amount of traffic generated by the existing project uses is subtracted from the proposed project traffic volumes to determine the net new traffic that would be added to the roadway system were the project to be approved. Step two (trip generation) identifies the likely direction of travel to and from the project site. Step three (trip assignment) assigns the project trips to specific street segments and intersection turning movements. These procedures are described further in the following sections.

Trip Generation

Data has been collected that correlate to common land uses their propensity for producing traffic. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development.

The proposed project traffic was estimated by applying to the size of the development the applicable trip generation rates published in the Institute of Transportation Engineers (ITE) Manual entitled *Trip Generation*, seventh edition, 2003. Traffic counts completed at entrances of the existing Gilroy campus during the fall of 2005 validate the use of ITE rates. The Gilroy campus counts are included in Appendix A. Based on the rates recommended ITE rates, it is estimated that the proposed campus would generate 12,000 daily trips, with 1,200 trips occurring during each of the peak hours. Using

the specified inbound/outbound splits recommended by ITE, the project would produce an increase of 984 inbound trips and 216 outbound trips during the AM peak hour and an increase of 768 inbound and 432 outbound trips during the PM peak hour. The project trip generation estimates are presented in Table 8.

A police academy is also proposed as part of the campus. The academy generally holds classes of 15-20 students. Arrival times of academy students vary, but generally students arrive prior to the AM peak hour. Therefore, trip generation estimates for the project do not include estimates for the academy since only a minimal amount of traffic will be generated by the academy during the peak hours.

Trip Distribution

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

Trip Assignment

The peak-hour trips generated by the proposed development were assigned to the roadway system in accordance with the trip distribution pattern discussed above. The assignment of project trips differs slightly in the immediate area of the project site for each of the scenarios due to the planned roadway improvements that are part of the CVRP development. Refer to Appendix A for a display showing the project trip assignments for each of the project conditions scenarios and for a comparison of the change in project trip assignment due to the CVRP roadway improvements.

Table 8:
Project Trip Generation Estimates

Land Use	Size	Daily[2]		Peak Hour Rate[1]	AM Peak Hour					PM Peak Hour				
					Splits		Trips			Splits		Trips		
		Rate	Trips		In	Out	In	Out	Total	In	Out	In	Out	Total
Proposed Coyote Valley Campus	10,000[3] Students	1.2	12,000	.12	82%	18%	984	216	1,200	64%	36%	768	432	1,200

[1]Rates expressed in trips per student/1,000 s.f.
[2]Trip Generation rates for Junior/Community College (ITE land Use #540) used for this project
[3]Number of students is based on the projected number of full-time equivalent students

3.2.2.3 *Project Traffic Volumes*

Project trips, as represented in the above project trip assignments, were added to each of the corresponding background traffic volumes to obtain background plus project traffic volumes. Background traffic volumes plus project trips are typically referred to simply as project traffic volumes; this is contrasted with the term project trips, which is used to signify the traffic that is produced specifically by the project. Appendix A graphically shows the project traffic volumes for each of the scenarios.

3.2.2.4 *Project Intersection Analysis*

The results of the level of service analysis under each of the project conditions scenarios are

summarized in Tables 9-11. The results show that, measured against the applicable level of service standards, the same two study intersections projected to operate at unacceptable levels under each of the background conditions scenarios will remain unacceptable under each of the project conditions scenarios. Neither of the intersections would be impacted by the project according to the City of San José and CMP level of service standards under any of the background or project scenarios, even assuming full buildout of the CVRP plus the project. **[Less Than Significant Impact]**

Table 9:
Project Intersection Levels of Service (Without CVRP)

Intersection	Peak Hour	Background		Project Conditions			
		Ave. Delay	LOS	Ave. Delay	LOS	Increase in Critical Delay	Increase in Critical V/C
1. Monterey Road and Metcalf Road	AM	11.7	B	12.4	B	1.5	0.020
	PM	17.7	B	17.7	B	-13.1	0.045
2. Monterey Road and Blanchard Road	AM	6.4	A	6.7	A	0.0	0.008
	PM	8.1	A	7.2	A	-1.0	0.027
3. Monterey Road and Bailey Avenue (N)	AM	10.6	B	14.0	B	2.4	0.179
	PM	11.8	B	11.4	B	1.5	0.065
4. Monterey Road and Bailey Avenue (E)	AM	26.5	C	25.7	C	1.1	0.156
	PM	25.9	C	22.4	C	1.1	0.170
5. Monterey Road and Palm Avenue	AM	14.6	B	13.1	B	-1.4	0.053
	PM	15.0	B	12.9	B	-1.3	0.023
6. Monterey Road and Live Oak Avenue	AM	11.6	B	10.2	B	-1.2	0.052
	PM	12.5	B	10.8	B	-1.7	0.023
8. US 101 and Bailey Avenue (W)	AM	18.6	B	19.3	B	-4.5	0.146
	PM	14.7	B	16.2	B	3.3	0.025
9. Santa Teresa Blvd and Bailey Avenue	AM	27.9	B	35.5	D	8.7	0.408
	PM	36.8	B	35.4	D	0.0	0.174
10. US 101 and Bernal Road (E)*	AM	151.2	F	154.3	F	2.8	0.006
	PM	69.0	E	71.1	E	2.2	0.005
11. US 101 and Bernal Road (W)*	AM	12.9	B	13.0	B	0.2	0.004
	PM	9.0	A	9.0	A	0.1	0.006
12. SR 85 and Bernal Road*	AM	30.5	C	31.2	C	8.2	0.009
	PM	46.7	D	47.8	D	3.2	0.010
13. Monterey Road and Bernal Road (E)*	AM	12.0	B	12.4	B	0.4	0.006
	PM	11.9	B	12.2	B	0.3	0.005
14. Monterey Road and Bernal Road (N)*	AM	21.0	C	21.1	C	-0.1	0.015
	PM	21.2	C	21.6	C	0.2	0.015
15. Monterey Road and Bernal Road (S)*	AM	4.4	A	4.4	A	0.0	0.003
	PM	5.3	A	5.2	A	-0.1	0.006
16. San Ignacio Avenue and Bernal Road	AM	22.1	C	22.2	C	0.0	0.000
	PM	35.5	D	35.7	D	0.3	0.003
17. Santa Teresa Blvd and Bernal Road*	AM	35.2	D	35.2	D	0.2	0.008
	PM	31.6	C	32.1	C	0.6	0.004
18. Santa Teresa Blvd and Chantilly Lane	AM	13.2	B	13.6	B	-0.1	0.003
	PM	15.9	B	16.3	B	0.6	0.021

Table 9:
Project Intersection Levels of Service (Without CVRP)

Intersection	Peak Hour	Background		Project Conditions			
		Ave. Delay	LOS	Ave. Delay	LOS	Increase in Critical Delay	Increase in Critical V/C
19. Santa Teresa Blvd and Avenida Espana	AM	20.7	C	20.6	C	-0.3	0.004
	PM	19.9	B	14.5	B	-13.0	0.003
20. Monterey Road and Menard Drive	AM	10.8	B	10.8	B	0.0	0.004
	PM	7.4	A	7.3	A	0.0	0.023
21. Monterey Road and Monterey Circle	AM	8.5	A	9.3	A	1.2	0.018
	PM	9.9	A	10.2	B	-10.0	0.064
22. Monterey Road and Tilton Avenue	AM	16.0	B	15.6	B	-0.1	0.056
	PM	21.1	C	20.0	B	-0.9	0.023
23. Monterey Road and Madrone Parkway	AM	10.7	B	10.5	B	-0.6	0.053
	PM	10.8	B	10.4	B	12.5	0.036
24. Monterey Road and Cochrane Road	AM	29.6	C	28.6	C	-1.3	0.046
	PM	29.1	C	29.2	C	1.3	0.040
25. US 101 and Cochrane Road (W)	AM	11.6	B	11.8	B	0.2	0.012
	PM	16.0	B	17.1	B	2.9	0.020
26. US 101 and Cochrane Road (E)	AM	11.1	B	11.2	B	0.5	0.034
	PM	10.6	B	10.5	B	0.1	0.015

CMP intersection is denoted with an asterisk (*).

Table 10:
Project Intersection Levels of Service (With Partial CVRP)

Intersection	Peak Hour	Background		Project Conditions			
		Ave. Delay	LOS	Ave. Delay	LOS	Increase in Critical Delay	Increase in Critical V/C
1. Monterey Road and Metcalf Road	AM	9.1	A	10.0	B	1.4	0.020
	PM	13.3	B	13.6	B	0.3	0.025
2. Monterey Road and Blanchard Road	AM	6.0	A	3.5	A	3.4	-0.004
	PM	6.4	A	5.9	A	-0.8	0.027
3. Monterey Road and Bailey Avenue (N)	AM	12.3	B	14.8	B	1.7	0.196
	PM	12.5	B	12.2	B	1.2	0.065
4. Monterey Road and Bailey Avenue (E)	AM	21.6	C	24.0	C	3.3	0.156
	PM	19.3	B	21.4	C	-0.8	0.050
5. Monterey Road and Palm Avenue	AM	13.6	B	12.3	B	-1.0	0.053
	PM	13.1	B	11.5	B	-0.9	0.023
6. Monterey Road and Live Oak Avenue	AM	10.7	B	9.3	A	-0.9	0.052
	PM	11.1	B	9.7	A	-1.2	0.023
8. US 101 and Bailey Avenue (E)	AM	21.5	C	23.4	C	0.4	0.059
	PM	11.1	B	13.4	B	2.7	0.025
9. Santa Teresa Blvd and Bailey Avenue	AM	38.7	D	39.3	D	-2.7	0.045
	PM	41.3	D	42.3	D	2.6	0.136

Table 10:
Project Intersection Levels of Service (With Partial CVRP)

Intersection	Peak Hour	Background		Project Conditions			
		Ave. Delay	LOS	Ave. Delay	LOS	Increase in Critical Delay	Increase in Critical V/C
10. US 101 and Bernal Road (E)	AM	152.6	F	155.7	F	2.8	0.006
	PM	69.4	E	71.5	E	2.2	0.005
11. US 101 and Bernal Road (W)*	AM	12.9	B	13.1	B	0.2	0.004
	PM	9.0	A	9.0	A	0.1	0.006
12. SR 85 and Bernal Road*	AM	34.0	C	34.7	C	2.3	0.014
	PM	48.2	D	49.4	D	3.2	0.010
13. Monterey Road and Bernal Road (E)*	AM	12.0	B	12.3	B	0.4	0.006
	PM	11.9	B	12.2	B	0.3	0.005
14. Monterey Road and Bernal Road (N)*	AM	21.7	C	21.9	C	0.0	0.015
	PM	23.5	C	23.8	C	0.2	0.015
15. Monterey Road and Bernal Road (S)*	AM	4.3	A	4.3	A	0.0	0.003
	PM	4.6	A	4.6	A	0.0	0.006
16. San Ignacio Avenue and Bernal Road	AM	22.2	C	22.3	C	0.0	0.000
	PM	35.5	D	35.7	D	0.3	0.003
17. Santa Teresa Blvd and Bernal Road*	AM	34.7	C	34.6	C	0.0	0.001
	PM	34.1	C	34.4	C	0.3	0.004
18. Santa Teresa Blvd and Chantilly Lane	AM	13.0	B	12.9	B	-0.1	0.003
	PM	14.4	B	14.7	B	0.8	0.016
19. Santa Teresa Blvd and Avenida Espana	AM	20.1	C	18.0	B	-6.3	-0.041
	PM	17.5	B	16.9	B	-0.6	0.008
20. Monterey Road and Menard Drive	AM	9.8	A	9.5	A	0.1	0.030
	PM	7.6	A	7.3	A	0.0	0.023
21. Monterey Road and Monterey Circle	AM	7.8	A	8.7	A	1.2	0.018
	PM	9.9	A	10.0	A	0.3	0.020
22. Monterey Road and Tilton Avenue	AM	15.7	B	15.4	B	0.0	0.056
	PM	20.1	C	18.9	B	-0.8	0.023
23. Monterey Road and Madrone Parkway	AM	10.5	B	10.4	B	-0.4	0.053
	PM	10.2	B	9.9	A	0.0	0.023
24. Monterey Road and Cochrane Road	AM	28.8	C	28.0	C	-1.2	0.046
	PM	27.6	C	27.9	C	-0.3	0.020
25. US 101 and Cochrane Road (W)	AM	11.6	B	11.8	B	0.2	0.012
	PM	16.6	B	17.9	B	3.3	0.020
26. US 101 and Cochrane Road (E)	AM	11.2	B	11.3	B	0.6	0.034
	PM	10.6	B	10.5	B	0.1	0.015
30. Santa Teresa Blvd. and Cheltenham Way	AM	11.8	B	11.5	B	-0.3	0.009
	PM	16.3	B	15.6	B	-0.4	0.018
31. Santa Teresa Blvd. and Bayliss Drive	AM	17.7	B	18.5	B	1.7	0.083
	PM	15.9	B	15.6	B	0.3	0.065

CMP intersection is denoted with an asterisk (*).

Table 11:
Project Intersection Levels of Service (With Full Buildout of CVRP)

Intersection	Peak Hour	Background		Project Conditions			
		Ave. Delay	LOS	Ave. Delay	LOS	Increase in Critical Delay	Increase in Critical V/C
1. Monterey Road and Metcalf Road	AM	6.8	A	7.5	A	1.0	0.041
	PM	9.7	A	10.3	B	0.9	0.025
2. Monterey Road and Blanchard Road	AM	4.0	A	4.2	A	0.2	0.035
	PM	6.2	A	6.1	A	0.0	0.015
3. Monterey Road and Bailey Avenue (N)	AM	15.6	B	15.6	B	2.2	0.146
	PM	11.9	B	12.6	B	1.2	0.039
4. Monterey Road and Bailey Avenue (E)	AM	N/A	N/A	N/A	N/A	N/A	N/A
	PM	N/A	N/A	N/A	N/A	N/A	N/A
5. Monterey Road and Palm Avenue	AM	11.6	B	10.8	B	-0.5	0.053
	PM	10.7	B	10.0	A	-0.2	0.023
6. Monterey Road and Live Oak Avenue	AM	8.7	A	7.8	A	-0.5	0.052
	PM	9.0	A	8.1	A	-0.7	0.023
7. US 101 and Bailey Avenue (W)	AM	2.3	A	1.8	A	0.0	0.061
	PM	2.8	A	3.2	A	-1.4	0.047
8. US 101 and Bailey Avenue (E)	AM	20.9	C	50.3	D	12.4	0.059
	PM	20.4	C	31.2	C	20.7	0.163
9. Santa Teresa Blvd and Bailey Avenue	AM	42.2	D	43.3	D	0.5	0.143
	PM	40.3	D	43.8	D	3.8	0.057
10. US 101 and Bernal Road (E)	AM	155.6	F	158.7	F	2.8	0.006
	PM	70.3	E	72.5	E	2.2	0.005
11. US 101 and Bernal Road (W)*	AM	12.9	B	13.1	B	0.2	0.004
	PM	9.0	A	9.0	A	0.1	0.006
12. SR 85 and Bernal Road*	AM	47.6	D	49.0	D	5.2	0.014
	PM	57.0	E	59.3	E	3.3	0.010
13. Monterey Road and Bernal Road (E)*	AM	11.7	B	12.1	B	0.4	0.006
	PM	11.9	B	12.2	B	0.3	0.005
14. Monterey Road and Bernal Road (N)*	AM	25.0	C	25.4	C	0.7	0.025
	PM	27.3	C	27.7	C	0.5	0.015
15. Monterey Road and Bernal Road (S)*	AM	4.2	A	4.2	A	0.0	0.003
	PM	4.9	A	4.9	A	0.1	0.006
16. San Ignacio Avenue and Bernal Road	AM	22.7	C	22.8	C	0.0	0.000
	PM	35.6	D	35.8	D	0.3	0.003
17. Santa Teresa Blvd and Bernal Road*	AM	34.2	C	34.3	C	0.1	0.006
	PM	37.0	D	37.1	D	0.1	0.004
18. Santa Teresa Blvd and Chantilly Lane	AM	9.9	A	9.8	A	-0.1	0.015
	PM	10.7	B	11.1	B	0.7	0.016
19. Santa Teresa Blvd and Avenida Espana	AM	14.3	B	14.2	B	-0.2	0.022
	PM	13.3	B	13.2	B	-0.1	0.008
20. Monterey Road and Menard Drive	AM	8.9	A	9.0	A	0.4	0.030
	PM	7.5	A	7.2	A	-0.1	0.009
21. Monterey Road and Monterey Circle	AM	8.7	A	9.5	A	1.0	0.037
	PM	11.2	B	11.4	B	0.5	0.020

Table 11:
Project Intersection Levels of Service (With Full Buildout of CVRP)

Intersection	Peak Hour	Background		Project Conditions			
		Ave. Delay	LOS	Ave. Delay	LOS	Increase in Critical Delay	Increase in Critical V/C
22. Monterey Road and Tilton Avenue	AM	15.4	B	15.6	B	0.5	0.056
	PM	18.1	B	17.1	B	-0.5	0.023
23. Monterey Road and Madrone Parkway	AM	10.3	B	10.3	B	0.0	0.053
	PM	9.2	A	9.1	A	0.1	0.023
24. Monterey Road and Cochrane Road	AM	27.5	C	27.0	C	-0.7	0.046
	PM	26.8	C	27.1	C	-0.2	0.020
25. US 101 and Cochrane Road (W)	AM	11.6	B	11.8	B	0.2	0.012
	PM	18.7	B	20.4	C	4.4	0.020
26. US 101 and Cochrane Road (E)	AM	11.3	B	11.5	B	0.7	0.034
	PM	10.6	B	10.6	B	0.2	0.015
27. IBM Entrance and Bailey Avenue (E)	AM	7.4	A	6.3	A	3.7	0.093
	PM	17.5	B	15.0	B	-1.7	0.212
28. IBM Entrance and Bailey Avenue (W)	AM	7.7	A	31.6	C	30.6	0.391
	PM	5.1	A	20.9	C	22.5	0.186
29. McKean Rd. and Bailey Avenue	AM	33.8	C	40.0	D	6.9	0.035
	PM	25.8	C	30.4	C	4.3	0.018
30. Santa Teresa Blvd. and Cheltenham Way	AM	12.7	B	13.0	B	0.6	0.041
	PM	16.2	B	16.2	B	0.4	0.018
31. Santa Teresa Blvd. and Bayliss Drive	AM	15.8	B	16.4	B	1.0	0.041
	PM	15.7	B	15.8	B	0.4	0.018
32. Hale Avenue and Tilton Avenue	AM	12.4	B	12.3	B	-0.1	0.030
	PM	9.9	A	9.9	A	-0.1	0.013
33. Monterey Road and Bailey Avenue (S)	AM	6.5	A	13.2	B	12.3	0.222
	PM	12.3	B	21.9	C	26.7	0.257

CMP intersection is denoted with an asterisk (*).

3.2.2.5 *Freeway Segment Analysis*

Project traffic volumes on the freeway segments were estimated by adding to existing freeway volumes to the estimated project trips on freeway segments. The percentage of HOVs in the traffic stream was assumed to remain unchanged from existing conditions. The results of the analysis are summarized in Table 12. The results show that the mixed-flow lanes on 4 of the 30 directional freeway segments analyzed would operate at an unacceptable LOS F during at least one of the peak hours under project conditions. All other freeway segments analyzed would operate at LOS E or better during the AM and PM peak hours.

Project traffic would constitute one percent or more of freeway capacity in the mixed-flow lanes on one directional freeway segment that operates at LOS F during the AM peak hour:

Impact TRAN-1: Based on the CMP criteria for significant impacts on freeways, the project would have a significant impact on the directional freeway segment (US 101 northbound from Tennant Avenue to East Dunne Avenue) under project conditions. **[Significant Impact]**

Table 12:
Project Conditions Freeway Segment Levels of Service

Freeway	Segment	Capacity (vph)	Peak Hour	Existing Plus Project Trips		Project Trips/Volumes	
				LOS		Volume	% Impact
NB US 101	San Martin Ave and Tennant Ave	6,900	AM	C		49	0.7%
			PM	B		38	0.6%
	Tennant Ave and East Dunne Ave	6,900	AM	**F**		**98**	**1.4%**
			PM	D		77	1.1%
	East Dunne Ave and Cochrane Rd	6,900	AM	E		148	2.1%
			PM	C		115	1.7%
	Cochrane Rd and Coyote Creek Golf Dr	6,900	AM	D		212	3.1%
			PM	C		165	2.4%
	Coyote Creek Golf Dr and Bailey Ave	6,900	AM	D		165	2.4%
			PM	C		141	2.0%
	Bailey Ave and Coyote Valley Parkway	6,900	AM	D		32	0.5%
			PM	C		73	1.1%
	Coyote Valley Parkway and SR 85	6,900	AM	D		37	0.5%
			PM	C		73	1.1%
	SR 85 and Bernal Rd	6,900	AM	C		18	0.3%
			PM	C		38	0.5%
	Bernal Rd and Silver Creek Rd	6,900	AM	D		18	0.3%
			PM	C		40	0.6%
	Silver Creek Rd and Hellyer Ave	6,900	AM	F		12	0.2%
			PM	D		32	0.5%
	Hellyer Ave and Yerba Buena Rd	6,900	AM	E		13	0.2%
			PM	D		30	0.4%
	Yerba Buena Rd and Capitol Expwy	6,900	AM	F		8	0.1%
			PM	C		19	0.3%
SB US 101	San Martin Ave and Tennant Ave	6,900	AM	B		17	0.4%
			PM	C		39	0.9%
	Tennant Ave and East Dunne Ave	6,900	AM	C		11	0.2%
			PM	D		27	0.6%
	East Dunne Ave and Cochrane Rd	6,900	AM	C		8	0.2%
			PM	D		25	0.6%
	Cochrane Rd and Coyote Creek Golf Dr	6,900	AM	C		11	0.2%
			PM	D		22	0.3%
	Coyote Creek Golf Dr and Bailey Ave	6,900	AM	C		22	0.3%
			PM	D		43	0.6%
	Bailey Ave and Coyote Valley Parkway	6,900	AM	C		32	0.5%
			PM	C		65	0.9%
	Coyote Valley Parkway and SR 85	9,200	AM	C		46	0.7%
			PM	C		93	1.3%
	SR 85 and Bernal Rd	6,900	AM	B		38	0.6%
			PM	D		71	1.0%
	Bernal Rd and Silver Creek Rd	6,900	AM	B		164	2.4%
			PM	C		118	1.7%

Table 12:
Project Conditions Freeway Segment Levels of Service

Freeway	Segment	Capacity (vph)	Peak Hour	Existing Plus Project Trips		Project Trips/Volumes	
				LOS		Volume	% Impact
SB US 101	Silver Creek Rd and Hellyer Ave	6,900	AM	C		173	1.9%
			PM	D		129	1.4%
	Hellyer Ave and Yerba Buena Rd	6,900	AM	D		71	1.0%
			PM	D		50	0.7%
	Yerba Buena Rd and Capitol Expwy	6,900	AM	C		72	1.0%
			PM	C		53	0.8%
NB SR 85	Bernal Rd and Cottle Rd	4,400	AM	B		65	0.9%
			PM	C		51	0.7%
	Cottle Rd and Blossom Hill Rd	4,400	AM	D		71	1.0%
			PM	D		49	0.7%
	Blossom Hill Rd and SR 87	4,400	AM	F		42	0.6%
			PM	D		30	0.4%
SB SR 85	Bernal Rd and Cottle Rd	4,400	AM	C		90	2.0%
			PM	D		66	1.5%
	Cottle Rd and Blossom Hill Rd	4,400	AM	D		58	1.3%
			PM	D		45	1.0%
	Blossom Hill Rd and SR 87	4,400	AM	D		57	1.3%
			PM	E		38	0.9%

Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2005.

3.2.2.6 *Transit, Pedestrian and Bicycle Analysis*

While some of the trips could be made by transit, no deduction was applied to the estimated trip generation for the project; it can be assumed that some of the project trips could. Assuming up to 3% transit mode share, which is probably the highest that could be expected, yields an estimate of approximately 36 transit trips during the peak hours. These riders could easily be accommodated by the existing transit service. The site is currently served by only one bus route with a stop located at the intersection of Santa Teresa and Bailey Avenue. The project is proposing to provide bus stop locations on site to accommodate the additional bus riders from the campus.

There currently is only a minimal amount of pedestrian activity in the project area, but the project may produce a significant increase in pedestrian and bicycle activity in the immediate area. Sidewalks are not currently provided along either side of Bailey Avenue. The project proposes sidewalks along the project frontage of Bailey Avenue. This proposed sidewalk would be necessary to facilitate pedestrian access to the campus.

With the exception, a Santa Clara County pedestrian/bike trail that runs along Coyote Creek from the Edenvale Area to the south through Coyote Valley, ending near Anderson Reservoir in Morgan Hill, the project area is relatively without any existing bicycle facilities.

VTA recommends new developments to provide bicycle parking, and provides recommended bicycle parking rates in their VTA Countywide Bicycle Plan Technical Guidelines, September 1999. Two types of bicycle parking are described by VTA: Class I and Class II. Class I bicycle parking include

bicycle lockers, rooms with key access for regular bicycle commuters, guarded parking areas, and valet or check-in parking. Class II bicycle parking refers to a bicycle rack to which the frame and at least one wheel of the bicycle can be secured with a user-provided lock and cable. According to VTA's recommended rates, colleges/universities (such as the proposed project) should provide one Class I bicycle parking space for every 30 employees and one bicycle parking space for every 9 student seats (50% Class I and 50% Class II). The project should provide adequate parking according to the recommended rates. **[Less Than Significant Impact]**

3.2.3 Mitigation Measures

3.2.3.1 *Freeway Mitigation Measures*

MM TRAN-1: The mitigation necessary to reduce the significant impact upon the freeway segment is the widening of the freeway. Due to the substantial cost, this measure is not considered feasible for a single development project. This impact is, therefore, considered significant and unavoidable. **[Significant Unavoidable Impact]**

3.2.4 Conclusion

The proposed project would significantly impact one directional freeway segment on one freeway. There are no feasible measures to reduce the impact to the freeway segment to a less than significant level. **[Significant Unavoidable Impact]**

3.3 AIR QUALITY

The following discussion is based upon an air quality analysis prepared by *Illingworth & Rodkin, Inc.* in May 2007. This report is located in Appendix C of this EIR.

3.3.1 Existing Setting

3.3.1.1 *Regulatory Overview*

The federal Clean Air Act governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. At the federal level, the United States Environmental Protection Agency (USEPA) administers the federal Clean Air Act. The USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The California Clean Air Act is administered by the California Air Resources Board (CARB) at the State level and by the Air Quality Management Districts at the regional and local levels. CARB is also responsible for establishing the California Ambient Air Quality Standards (CAAQS). The Bay Area Air Quality Management District (BAAQMD) regulates air quality at the regional level, which includes the nine-county Bay Area. More detail about the regulatory agencies is provided in Appendix C.

As required by the federal Clean Air Act, the national and state ambient air quality standards have been established for six major air pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O_3), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), sulfur oxides, and lead. Both State and federal standards are summarized in Table 13. The CAAQS are more stringent than the NAAQS. Thus, the CAAQS are used as the comparative standard in this analysis.

Table 13:
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards[a]	
			Primary[b,c]	Secondary[b,d]
Ozone	8-hour	0.07 ppm	0.08 ppm	---
	1-hour	0.09 ppm	---[e]	Same as primary
Carbon monoxide	8-hour	9.0 ppm	9 ppm	---
	1-hour	20 ppm	35 ppm	---
Nitrogen dioxide	Annual	0.03 ppm	0.053 ppm	Same as primary
	1-hour	0.18 ppm	0.030 ppm	---
Sulfur dioxide	Annual	---	0.03 ppm	---
	24-hour	0.04 ppm	0.14 ppm	---
	3-hour	---	---	0.5 ppm
	1-hour	0.25 ppm	---	---
PM_{10}	Annual	20 $\mu g/m^3$	---[f]	Same as primary
	24-hour	50 $\mu g/m^3$	150 $\mu g/m^3$	Same as primary
$PM_{2.5}$	Annual	12 $\mu g/m^3$	15 $\mu g/m^3$	---
	24-hour	---	35 $\mu g/m^3$	---
Lead	Calendar quarter	---	1.5 $\mu g/m^3$	Same as primary
	30-day average	1.5 $\mu g/m^3$	---	---

Notes:
[a] Standards, other than for ozone and those based on annual averages, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.
[b] Concentrations are expressed first in units in which they were promulgated.
[c] Primary standards: the levels of air quality necessary, with an adequate margin of safety to protect public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the EPA.
[d] Secondary standards: the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
[e] The national 1-hour ozone standards was revoked by USEPA on June 15, 2005.
[f] The annual PM_{10} standard was revoked by USEPA on September 21, 2006 and a new $PM_{2.5}$ 24-hour standard was established.

3.3.1.2 *Criteria Air Pollutants and Effects*

Air quality studies generally focus on five pollutants that are most commonly measured and regulated: carbon monoxide (CO), ozone (O_3), nitrogen oxides (NO_2), sulfur oxides and particulate matter. Table 14 identifies the major criteria pollutants[8], characteristics, health effects, and typical sources. In Santa Clara County, ozone and particulate matter are the pollutants of greatest concern since measured air pollutant levels exceed these concentrations at times.

[8] Ambient air quality standards cover what are called "criteria" pollutants because the health effects of each pollutants because the health effects of each pollutants are described in criteria documents.

Table 14:
Major Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Carbon Monoxide	Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels.	- Impairment of oxygen transport in the bloodstream - Aggravation of cardiovascular disease - Fatigue, headache, confusion, dizziness - Can be fatal in the case of very high concentrations	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.
Ozone	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors, primarily reactive hydrocarbons and oxides of nitrogen. Often called photochemical smog.	- Eye irritation - Respiratory function impairment	The major sources ozone precursors are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Nitrogen Dioxide	Reddish-brown gas that discolors the air, formed during combustion.	- Increased risk of acute and chronic respiratory disease	Automobile and diesel truck exhaust, industrial processes, fossil-fueled power plants.
Sulfur Dioxide	Sulfur dioxide is a colorless gas with a pungent, irritating odor.	- Aggravation of chronic obstruction lung disease - Increased risk of acute and chronic respiratory disease	Diesel vehicle exhaust, oil-powered power plants, industrial processes.
Particulate Matter	Solid and liquid particles of dust, soot, aerosols and other matter which are small enough to remain suspended in the air for a long period of time.	- Aggravation of chronic disease and heart/lung disease symptoms	Combustion, automobiles, field burning, factories and unpaved roads. Also a result of photochemical processes.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are a broad class of compounds known to cause morbidity (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants discussed previously. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level. Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average).

CARB reports that recent air pollution studies have shown an association that diesel exhaust and other cancer-causing toxic air contaminants emitted from vehicles are responsible for much of the overall cancer risk from TACs in California. Particulate matter emitted from diesel-fueled engines [diesel particulate matter (DPM)] was found to make up much of that risk. In August 1998, CARB formally identified DPM as a TAC. DPM is of particular concern since it can be distributed over large regions, thus leading to widespread public exposure. The particles emitted by diesel engines are coated with chemicals, many of which have been identified by EPA as hazardous air pollutants and by CARB as TACs.

California has adopted a comprehensive diesel risk reduction program to reduce DPM emissions by 85 percent by 2020. The USEPA and CARB adopted low sulfur diesel fuel standards in 2006 that reduce DPM substantially.

In cooler weather, smoke from residential wood combustion can be a source of TACs. Localized high TAC concentrations can result when cold stagnant air traps smoke near the ground and, with no wind, the pollution can persist for many hours. This occurs in sheltered valleys during the winter. Wood smoke also contains a significant amount of PM_{10} and $PM_{2.5}$. Wood smoke is an irritant and implicated in worsening asthma and other chronic lung problems.

3.3.1.2 *Air Pollution Climatology*

The project site is located in south San José, within Coyote Valley, in Santa Clara County. The climate is affected by its proximity to both the Pacific Ocean and the San Francisco Bay, which has a moderating influence. The Pacific Ocean and the Bay cools the air with which it comes in contact during warm weather and warms the air during cold weather. During the afternoon and early evening, a north-northwesterly sea breeze often flows from the Bay through the valley, and a light south-southeasterly drainage flow often occurs during the late evening and early morning hours. Typical summer maximum temperatures for the region are in the mid to upper 80's, while winter maximum temperatures are in the low to mid 60's. Minimum temperatures usually range from the mid to high 50's in the summer to the upper 30's and low 40's in the winter. Rainfall in the area occurs mostly in the months of November through March.

Air quality standards for ozone are traditionally exceeded when relatively stagnant conditions occur for periods of several days during the warmer months of the year. Weak wind flow patterns combined with strong inversions substantially reduces normal atmospheric mixing. Key components of ground-level ozone formation are sunlight and heat; therefore, significant ozone formation only occurs during the months from late spring through early fall. Prevailing winds during the summer

and fall can transport and trap ozone precursors from the more urbanized portions of the Bay Area. Meteorological factors make air pollution potential in the project area relatively high. The clear skies with relatively warm conditions that are typical in summer combine with transported and localized air pollutant emissions to elevate ozone levels. The surrounding mountains up slope and down slope flows may also recirculate pollutants already present, contributing to the buildup of air pollution. Light winds and stable conditions during the late fall and winter contribute to the buildup of particulate matter from motor vehicles, agriculture, and wood burning in fireplaces and stoves.

Air Monitoring Data

Air quality in the region is controlled by the rate of pollutant emissions and meteorological conditions. Meteorological conditions such as wind speed, atmospheric stability, and mixing height may all affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality typically result from changes in air pollutant emissions, while frequent, short-term variations result from changes in atmospheric conditions. The San Francisco Bay Area is considered to be one of the cleanest metropolitan areas in the country with respect to air quality. The BAAQMD monitors air quality conditions at over 30 locations throughout the Bay Area. The monitoring stations closest to the project site are in San José. The East San José station closest to the project site only measures ozone, while the San José Central station measures all other air pollutants except sulfur dioxide.

Ozone is the air pollutant of greatest concern in summer. Prevailing summertime wind conditions tend to cause a build up of ozone in Santa Clara County. Ozone levels measured in San Jose did not exceed the national 1-hour standard that was in place until 2005. The 8-hour standard was exceeded at the San Jose stations in 2006 on one day. The State one-hour standard was exceeded from 0 to 2 days in 2001-2005 and then on five days during 2006 when there was extremely warm weather. Statistics regarding the new State 8-hour standard have only been kept since 2005. One exceedance occurred in 2005 and five exceedances occurred in 2006. More frequent exceedances of ozone standards occurred at other South Bay stations, particularly those further downwind in Los Gatos, Morgan Hill, and Gilroy.

The combination vehicle exhaust and wood smoke under stagnant air quality conditions leads to a build up of particulates in late fall and winter. Particulate matter is another pollutant of concern in the San Jose area. Measured exceedances of the state PM_{10} standard have occurred 2 to 4 measurement days each year in San Jose. Since particulate matter is measured every sixth day, standards are exceeded about 12 to 24 days per year. Although the $PM_{2.5}$ standard did not exceed standards at the time, the new national 24-hour standard would have been exceeded each year in San Jose. This standard was not in effect from 2001 through 2006. Annual average concentrations of PM_{10} exceed the State standards. Table 15 reports the number of days that an ambient air quality standard was exceeded at the monitoring stations near the project and in the entire Bay Area.

Table 15:
Annual Number of Days Exceeding Ambient Air Quality Standards

Pollutant	Standard	Monitoring Station	Days Exceeding Standard				
			2002	2003	2004	2005	2006
Ozone	Federal 1-hour	San José	0	0	0	--	--
		Bay Area	2	1	0	--	--
	Federal 8-hour	San José	0	0	0	0	1
		Bay Area	7	7	0	1	12
	State 1-hour	San José	0	2	0	1	5
		Bay Area	16	19	7	9	18
	State 8-hour	San José	--	--	--	--	5
		Bay Area	--	--	--	--	22
Respirable Particulate Matter (PM_{10})	Federal 24-hour	San José	0	0	0	0	0
		Bay Area	0	0	0	0	0
	State 24-hour	San José	2	3	4	2	2
		Bay Area	6	6	7	6	6
Fine particulate matter ($PM_{2.5}$)	Federal 24-hour*	San José	0	0	0	0	0
		Bay Area	5	0	1	0	0
All other (CO, NO_2, lead, SO_2)	All other	San José	0	0	0	0	0
		Bay Area	0	0	0	0	0

Notes: * Based on standard of 65 $\mu g/m^3$ that was in place until 09/21/06.

Attainment Status

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. The Bay Area as a whole does not meet state or federal ambient air quality standards for ground level O_3 and state standards for PM_{10} and $PM_{2.5}$.

Under the federal Clean Air Act, the USEPA has classified the region as marginally "nonattainment" for the 8-hour O_3 standard. The EPA requires the region to attain the standard by 2007. The Bay Area has met the CO standards for over a decade and is classified as "attainment maintenance" by the USEPA. The USEPA grades the region unclassified for all other air pollutants, which include PM_{10} and $PM_{2.5}$. Historical data indicates that the South Bay Area does not meet the current national $PM_{2.5}$ standards; however, EPA will not make attainment rulings until around 2010.

At the state level, the region is considered "serious non-attainment" for ground level O_3 and non-attainment for PM_{10}. CARB had not yet designated the area with respect to the state $PM_{2.5}$ standard. The region is required to adopt plans on a triennial basis that show progress towards meeting the State O_3 standard. The area is considered attainment or unclassified for all other pollutants.

3.3.1.4 *Sensitive Receptors*

Some groups of people are more affected by air pollution than others. CARB has identified the following people who are most likely to be affected by air pollution: children under 14 years old, the elderly over 65 years old, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care

facilities, elementary schools, and parks.

Sensitive receptors are not located near the project site. The closest sensitive receptor is a residence approximately 3,525 feet away, east of Santa Teresa Boulevard and south of Bailey Avenue.

3.3.2 Air Quality Impacts

3.3.2.1 *Thresholds of Significance*

For the purposes of this EIR, an air quality impact is considered significant if the project would:

- conflict with or obstruct implementation of the applicable air quality plan;
- violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- expose sensitive receptors to substantial pollutant concentrations; or
- create objectionable odors affecting a substantial number of people.

3.3.2.2 *Regional Air Quality*

The Bay Area is considered a non-attainment area for ground-level ozone under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM_{10}), and particulate matter with a diameter of less than 2.5 micrometers ($PM_{2.5}$) under the California Clean Air Act, but not the Federal Act. The area has attained both state and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM_{10}, the BAAQMD has established thresholds of significance for air pollutants. These thresholds are for ozone precursor pollutants (reactive organic gases and nitrogen oxides) and PM_{10}. The Bay Area has attained carbon monoxide standards.

The traffic impact study for the project indicates that the college with 10,000 new students would add about 12,000 new traffic trips, leading to increased emissions of air pollutants. Currently, more than 1,838 students travel north past the project site to other community college campuses. The Gavilan District estimates that the proposed Coyote Campus would capture about 1,470 of the 1,838 existing Gavilan District students that are currently traveling north of the campus to other community college campus. These are students that would drive past the proposed campus to an existing college. Therefore, the project would generate 10,236 new daily trips and 1,470 of the project trips are already on the roadway driving past the site to other northerly campuses.

Emissions of air pollutants associated with the project were predicted using the URBEMIS2007 model (Version 9.2), distributed by the California Air Resources Board and recommended for use by the BAAQMD. This model predicts daily emissions associated with land use developments. The model combines predicted daily traffic activity, associated with the college land use type, with emission factors from the State's mobile emission factor model (i.e., EMFAC2007). The trip generation rates described above were included in the modeling. The model predicts vehicle miles traveled (VMT) associated with the activity by combining trip lengths with trip generation estimates.

Using the data described above, the URBEMIS2007 predicts an increase in VMT of about 76,000 vehicle miles. The captured student trips would also have considerably shorter trip lengths. The three campuses to the north have travel distances of 14 to 25 miles further north than the project site. So the proposed project would not only capture these existing trips, but also shorten travel distances substantially. A goal of the project is to provide a college campus in a more convenient location for the student body. The reduction in VMT associated with the captured students was calculated at 27,318 miles daily (±18 miles/student/day). To account for this reduction, the predicted levels from the URBEMIS2007 model for vehicle travel generated by the project was adjusted to reflect the net VMT of 49,016 miles.

Daily emissions predicted with the project are reported in Table 16 and compared against the BAAQMD thresholds. The model also predicts area source emissions associated with the proposed project, which are minor compared to emissions associated with traffic. Appendix C includes the URBEMIS2007 model output and current excess VMT calculations for students traveling past the project site.

Table 16:
Existing Daily Project Emissions in Pounds Per Day

Scenario	Modeled Daily Emissions in Pounds Per Day (lbs/day)		
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NOx)	Respirable Particulates (PM10)
Project Area and Mobile Sources	95	41	131
VMT adjustment	-32	-11	-47
Net Increase in Regional Emissions	63	30	84
BAAQMD Thresholds	80	80	80

Build out of the project is anticipated to result in the construction or modification of stationary air pollutant sources. These sources may require permits from the BAAQMD. Such sources could include combustion emissions from boilers used for heating and cooling or standby emergency generators. These stationary sources would normally result in minor emissions, compared to those from traffic generation reported above. Sources of air pollutant emissions complying with all applicable BAAQMD regulations generally will not be considered to have a significant air quality impact. Stationary sources that are exempt from BAAQMD permit requirements because they fall below emission thresholds for permitting also would not be considered to have a significant air quality impact.

If vehicle mile reductions resulting from the project are not considered, emissions associated with the project (for existing students, now driving past the site) would be above the BAAQMD thresholds for ROG and PM_{10}. When the VMT adjustments associated with the project are taken into account, ROG emissions would be less than the thresholds. However, net new emissions of PM_{10} shown in Table 15 would be slightly above the significance thresholds established by the BAAQMD. As a result, the project would have a significant impact on regional air quality.

Impact AIR - 1: The proposed project would result in a significant regional air quality impacts associated with respirable particulates (PM_{10}) emissions. **[Significant Impact]**

3.3.2.3 *Local Air Quality*

Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard at both federal and State levels. The nearest monitoring station is in San José, and the highest measured concentration averaged over any 8-hour period during the last 3 years is 3.2 parts per million (ppm). The contribution of project-generated traffic to these levels was predicted using a screening procedure based on the Caline4 Line-Source Dispersion Model, and approved by the BAAQMD. The intersection of Bernal Road and San Ignacio Avenue is considered the worst intersection (in terms of elevated carbon monoxide levels from traffic) that would be affected by project-generated traffic. Future carbon monoxide levels were predicted near this intersection with the project in place using traffic projections provided by *Hexagon Transportation Consultants*. Emission factors used in the dispersion model were calculated using the EMFAC2007 model, developed by the California Air Resources Board, with default assumptions for Santa Clara County during winter that include a temperature of 45 degrees F. Carbon Monoxide predictions are shown in Table 17.

Table 17:
Predicted 8-Hour CO Concentrations with Project

Worst Intersection	Existing	Background No CVRP	Background W/Buildout CVRP	Project No CVRP	Project W/Buildout CVRP
Bernal Road & San Ignacio Avenue	5.5 ppm	7.0 ppm	7.0 ppm	4.2 ppm	4.2 ppm
BAAQMD Thresholds: California ambient air quality standard is 9.0 ppm					

Carbon monoxide concentrations in the near term future with background conditions would be below ambient air quality standards. Vehicle emission rates are predicted by the model to decrease substantially as newer cleaner vehicles replace older vehicles that have much higher emission rates. As a result, predicted future carbon monoxide concentrations occurring when the project is in place would be much lower than existing levels. The highest 8-hour concentration with the project in place is predicted to be 4.2 ppm over an 8-hour averaging period. This represents the roadside concentration with Background With Full Buildout of CVRP PM peak hour conditions, as reported in the *Hexagon Transportation Consultants* traffic report for intersection No. 16. The results of the screening analysis indicate that levels would be below the California ambient air quality standards (used to judge the significance of the impact) or 9.0 ppm; therefore the impact is considered less than significant. **[Less Than Significant Impact]**

3.3.2.4 *Construction*

During grading and construction activities, dust would be generated. Most of the dust could result during hauling and placing of 20,000 to 25000 truck loads of earth fill material, 450,000 cubic yards.

The amount of dust generated would be highly variable and is dependent on the size of the area disturbed, amount of activity, type of materials disturbed, and meteorological conditions. Typical winds during late spring through summer are from the north. Sensitive receptors are not located near the project site. However, construction of portions of the campus would likely occur after the first phase of the campus are completed and opened.

PM_{10} is the pollutant of greatest concern associated with dust generated from construction. If uncontrolled, PM_{10} levels downwind of actively disturbed areas could possibly exceed State standards. PM_{10} is both a local and regional air pollutant. The BAAQMD CEQA Guidelines recommend that measures to reduce PM_{10} be included with all construction projects. If uncontrolled, dust generated by grading and construction activities represents a significant impact.

Construction Equipment Exhaust

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known Toxic Air Contaminant. Diesel exhaust poses both a health and nuisance impact to nearby receptors. Diesel exhaust is also a substantial source of NOx emissions that affect regional ozone levels. These construction activities would not be near sensitive receptors and are expected to occur during a relatively short time.

Impact AIR – 2: The proposed project could result in construction related air quality impacts from dust (PM_{10}) and diesel exhaust. **[Significant Impact]**

3.3.3 Mitigation and Avoidance Measures

3.3.3.1 *Regional Air Quality Mitigation Measures*

MM AIR – 1: The measures listed below would represent reasonable and feasible measures that would reduce air pollutant emissions. Reducing vehicle trips associated with the project would be most effective in reducing project emissions. The number of daily trips can be reduced by properly implementing appropriate measures that are consistent with BAAQMD TCMs:

- Provide bicycle parking in accordance with VTA Countywide Bicycle Plan Technical Guidelines, September 1999 (see Traffic Section). Under these recommendations, 50% of the bicycle parking would be in secure areas (e.g., locker rooms, guarded valet areas, etc.).

- Enhanced pedestrian facilities that include easy access and signage to bus stops and roadways that serve the site. This would include safe, convenient access to bus stops.

- Implement a landscape plan that provides shade trees along buildings and pedestrian pathways.

- The project should be required to promote transit use by providing transit information and incentives to employees.

- Include services such as small restaurants, ATMs, and small retail stores.

- Consider providing scheduled shuttle service between the college and Monterey Highway.

- Support efforts to add a bicycle lane to Bailey Avenue that would access the college.

Full implementation of these mitigation measures would reduce the impact, but not to a less than significant level.

3.3.3.2 *Construction Mitigation Measures*

MM AIR - 2: Implementation of the measures recommended by BAAQMD and those listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. Measures to reduce diesel particulate matter and $PM_{2.5}$ from construction are recommended to ensure that short-term health impacts to nearby sensitive receptors are avoided. These measures shall be included on the construction documents and plans.

- Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.

- Cover all hauling trucks or maintain at least two feet of freeboard.

- Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.

- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.

- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously-graded areas that are inactive for 10 days or more).

- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.

- Limit traffic speeds on any unpaved roads to 15 mph.

- Replant vegetation in disturbed areas as quickly as possible.

- Suspend construction activities that cause visible dust plumes to extend beyond the construction site.

- Prohibit use of "dirty" equipment. If equipment with noticeably dirty emissions shall be prohibited from operation at the site until proper maintenance has been performed to reduce the visible emissions to acceptable levels. If necessary, opacity shall be used as an indicator of exhaust particulate emissions from off-

road diesel powered equipment, where the project shall ensure that emissions from all construction diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately

- Signs shall be clearly posted at the construction site indicating that diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite.

- Properly tune and maintain equipment in accordance with manufacturer specifications.

3.3.4 Conclusion

The proposed project will not result in significant local air quality impacts and includes measures to reduce construction air quality impacts to a less than significant level. **[Less Than Significant Impact]**

The proposed project would generate regional pollutants in excess of BAAQMD significance thresholds. Implementation of standards measures would reduce this impact, but the impact cannot be reduced to a less than significant level. **[Significant and Unavoidable Impact]**

3.4 NOISE

The following discussion is based upon an environmental noise analysis prepared by Illingworth & Rodkin, Inc. in July 2007. This report is located in Appendix D of this EIR.

3.4.1 Introduction and Regulatory Framework

3.4.1.1 *Fundamentals of Environmental Noise*

Noise is measured in "decibels" (dB) which is a numerical expression of sound levels on a logarithmic scale. A noise level that is ten dB higher than another noise level has ten times as much sound energy and is perceived as being twice as loud. Sounds less than five dB are just barely audible and then only in absence of other sounds. Intense sounds of 140 dB are so loud that they are painful and can cause damage with only a brief exposure. These extremes are not commonplace in our normal working and living environments. An "A-weighted decibel" (dBA) filters out some of the low and high pitches which are not as audible to the human ear. Thus, noise impact analyses commonly use the dBA.

Since excessive noise levels can adversely affect human activities (such as conversation, sleeping and human health) federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. The noise guidelines are almost always expressed using one of several noise averaging methods such as L_{eq}, DNL, or CNEL.[9] Using one of these descriptors is a way for the overall noise exposure of a particular location to be measured, realizing that there are specific moments when noise levels are higher (e.g., when a jet is taking off from Norman Y. Mineta San José International Airport or a leaf blower is operating) and specific moments when noise levels are lower (e.g., during lulls in traffic flows or in the middle of the night).

3.4.1.2 *Applicable Noise Standards and Policies*

The proposed project is not subject to City of San José approval. Nevertheless, City of San José noise standards have been used to establish a threshold for noise impacts since the project site is located within the City limits. The state of California and the City of San José have established plans and policies designed to limit noise exposure at noise sensitive land uses.

State CEQA Guidelines

CEQA has established guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. In Appendix G of these CEQA Guidelines (the environmental checklist), a project would normally be considered to have a significant impact if the resulting noise levels conflict with standards in the local General Plan or noise ordinance or applicable standards of other agencies, if noise levels generated by the project would substantially increase existing noise levels, if persons would be exposed to excessive ground-borne noise or vibration, if persons would be located within two miles of a public airport and exposed to excessive noise levels, or if persons

[9] **L_{eq}** stands for the Noise Equivalent Level and is a measurement of the average energy level intensity of noise over a given period of time such as the noisiest hour. **DNL** stands for Day-Night Level and is a 24-hour average of noise levels, with 10-dB penalties applied to noise occurring between 10 PM and 7 AM. **CNEL** stands for Community Noise Equivalent Level; it is similar to the DNL except that there is an additional five-dB penalty applied to noise which occurs between 7 PM and 10 PM. As a general rule of thumb where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour Leq.

would be exposed to a substantial temporary or periodic increase in ambient noise levels in the project vicinity.

City of San Jose General Plan

San Jose's 2020 General Plan identifies noise and land use compatibility standards for various land uses. The City's goal is to, "...minimize the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies."

Noise and Land Use Compatibility Guidelines for Community Noise indicates that educational facilities are considered "satisfactory" up to 60 dBA DNL as the short-range exterior noise quality level, and 55 dBA DNL as the long-range exterior noise quality level. The guidelines state that where the exterior DNL is above the "satisfactory" limit (between 60 and 70 dBA DNL), and the project requires a full EIR, an acoustical analysis should be made indicating the amount of attenuation necessary to maintain an indoor level of less than or equal to 45 dBA DNL. Policy 9 states that construction operations should use available noise suppression devices and techniques. Policy 11 states that public/quasi-public land uses should mitigate noise generation to meet the 55 dBA DNL guideline at the property line when located adjacent to existing or planned noise sensitive residential land uses.

3.4.2 Existing Setting

Ambient noise measurements were made in the project vicinity in July 2005[10]. Several noise measurements made during this survey are representative of the noise environment at or near the project site. The existing noise environment in Coyote Valley varies depending on the specific location of the receiver, but is predominantly the result of local transportation noise sources. Noise levels at the project site mostly result from traffic along Bailey Avenue. Distant vehicle traffic along Santa Teresa Boulevard, Monterey Road, and US 101 contribute to background noise levels at the site. Trains along the Union Pacific Railroad are also audible throughout Coyote Valley during passby events. The nearest noise-sensitive land uses are located approximately 4,400 feet away, east of Santa Teresa Boulevard and south of Bailey Avenue.

Traffic noise levels were monitored at two locations along Bailey Avenue, refer to Figure 9. The first location (LT-1) was 90 feet from the centerline of Bailey Avenue west of Santa Teresa Boulevard. Hourly average noise levels typically ranged from 59 to 68 dBA L_{eq} during the day, and from about 54 to 61 dBA L_{eq} at night. The day-night average noise level at this location was 66 dBA DNL. Long-term noise measurement LT-2 documented existing ambient noise levels at a distance of 80 feet from the centerline of Bailey Avenue east of Santa Teresa Boulevard. Hourly average noise levels typically ranged from 61 to 66 dBA L_{eq} during the day at LT-2, and from about 53 to 61 dBA L_{eq} at night. The day-night average noise level at LT-2 was also 66 dBA DNL.

Traffic noise levels were also measured along Santa Teresa Boulevard and Monterey Road. Noise measurement location LT-3 was 100 feet from the centerline of Santa Teresa Boulevard north of Bailey Avenue. Hourly average noise levels typically ranged from 63 to 69 dBA L_{eq} during the day, and from about 52 to 68 dBA L_{eq} at night. The day-night average noise level at this location ranged from 68 to 69 dBA DNL. Long-term noise measurement LT-4 documented existing ambient noise

[10] The 2005 measurements were completed during the preparation of the Coyote Valley Specific Plan (CVSP) DEIR March 2007. No substantial land use changes resulting in a change in ambient project area noise levels have occurred since 2005 or since the measurements were made.

levels at a distance of 300 feet from the centerline of Monterey Road. Hourly average noise levels typically ranged from 54 to 68 dBA L_{eq} during the day at LT-4, and from about 52 to 67 dBA L_{eq} at night. The day-night average noise level at LT-4 also ranged from 68 to 69 dBA DNL.

A short-term noise measurement was made approximately 50 feet from the centerline of Bailey Avenue just east of the IBM Campus on July 6, 2005 (ST-1), refer to Figure 9. The average noise level between 1:30 p.m. and 1:40 p.m. was 62 dBA L_{eq}. The day-night average noise level at ST-1 is estimated to be 65 dBA DNL.

3.4.3 Noise Impacts

3.4.3.1 *Thresholds of Significance*

For the purposes of this project, a noise impact is considered significant if the project would result in:

- exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; or
- a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or

CEQA does not define what noise level increase would be considered substantial. Typically, a project generated increase of 3 dBA DNL or greater would be considered significant when projected noise levels would exceed those considered acceptable for the affected land use. An increase of five dBA DNL or greater would be considered a significant impact when projected noise levels would remain within those considered acceptable for the affected land use.

3.4.3.2 *Noise Impacts to the Project*

The cumulative (Coyote Valley Specific Plan and proposed project) traffic volumes were used to calculate future noise levels at the project site. Future traffic noise levels are calculated to be 70 dBA DNL at a distance of 60 feet from the center of Bailey Avenue, 65 dBA DNL at a distance of 130 feet, and 60 dBA DNL at a distance of 280 feet from the center of the roadway.

Portions of the main building nearest Bailey Avenue would be located as close as 160 feet from the center of the roadway. At this distance, future exterior noise levels are calculated to be 64 dBA DNL. In buildings of typical construction, with the windows partially open, interior noise levels are approximately 15 dBA lower than exterior noise levels. With the windows closed, standard construction typically provides 20 to 25 decibels of exterior to interior noise reduction. Interior noise levels would exceed 45 dBA DNL assuming standard construction with the windows open for ventilation.

Where exterior noise levels range from 60 to 65 dBA DNL, the inclusion of adequate forced air mechanical ventilation is often the method selected to reduce interior noise levels to acceptable levels by closing the windows to control noise. In exterior noise environments of 60 dBA DNL or less, standard construction methods are normally sufficient to reduce interior noise levels to 45 dBA DNL.

Impact NOI – 1: Future students and facility on the project site would be exposed to noise levels exceeding 60 dBA DNL. **[Significant Impact]**

3.4.3.2 *Noise Impacts from the Project*

Project-Generated Traffic Noise

The traffic noise impact evaluation is based on information set forth in the Gavilan College Coyote Valley Campus Transportation Impact Analysis.[11] Project traffic volumes were compared to existing traffic volumes to represent a credible worst-case analysis of potential project generated traffic noise impacts. Project generated traffic is calculated to increase vehicular traffic noise levels at sensitive receivers along roadways serving the site by less than 3 dBA DNL over existing conditions. Such an increase is not substantial and would cause a less than significant noise impact. **[Less Than Significant Impact]**

Project Operational Noise

Uses proposed at Gavilan College Coyote Valley Campus are those typical of many community colleges including classroom and administration buildings, gymnasium, athletic fields and parking. A police academy complex that includes classroom buildings, indoor firing range building, and an operational facility would be located in the southwest corner of the site. The noise generated by these campus uses are described below.

Athletic Facilities

Athletic fields, including two separate soccer fields, a combined football field/soccer field, baseball field, and a softball field are proposed on approximately 10.4 acres on the easternmost portion of the site. Actively used playfields could be a potentially significant source of community noise. Noise would result from players, spectators, and public address systems. The playfields would include lighting and would be expected to generate noise in the evening hours. The specific number of events and details such as the number of spectators, etc. are not known at this time.

A credible worst-case assessment of potential noise from sporting activities at the community college campus was made using noise data from a high-school football game. High-school sporting events are generally attended by more spectators than community college events. Worst-case average noise levels resulting from a football game would be approximately 61 to 63 dBA Leq at a distance of 465 feet from the center of the field and would include noise sources such as the cheering of the crowd, referee's whistles, the public address system, horns, bands, and other amplified music. Maximum noise levels generated by these individual sources would typically range from 60 to 74 dBA L_{max} at a distance of 465 feet. Noise levels generated by baseball, softball, track and field, and swimming events would be lower than those generated by football events.

The nearest existing noise-sensitive receivers are located about 4,400 feet northeast of the project site. Worst-case average noise levels generated by a football game would range from about 41 to 43 dBA Leq at the nearest residences. Maximum noise levels would range from about 40 to 54 dBA L_{max} at the nearest residences. Noise resulting from sporting activities would generally fall below ambient noise levels generated by vehicular traffic along Bailey Avenue and Santa Teresa Boulevard;

[11] Hexagon Transportation Consultants, Inc., Gavilan College Coyote Valley Campus Transportation Impact Analysis, May 24, 2007.

however, sounds may be occasionally audible during lulls in traffic. Nonetheless, day-night average noise levels generated by sporting activities would not exceed local standards or the ambient noise environment at the nearest residential receivers. **[Less Than Significant Impact]**

Police Academy

The police academy would include an indoor firing range located at the southwest corner of the project site. Noise generated by the proposed firing range could be audible at off-site locations. *Illingworth & Rodkin, Inc.* has measured noise from gunshots within indoor firing ranges. Noise measurements were made near openings between the interior of the firing range and the exterior of the building (ceiling air vent openings on the rooftop and entry doors). Maximum impulsive noise levels measured on the roof-top and at ground level outside of the firing range access doors ranged from 84 to 93 dBA L_{max} during fairly continuous firing.

Assuming the inclusion of standard noise attenuation measures in the design of the proposed firing range (e.g., interior sound absorptive materials, acoustical louvers, sound rated door assemblies, etc.) impulsive noise from gunshots would be approximately 30 to 39 dBA L_{max} at the nearest residential receivers to the northeast. These noise levels would be below ambient maximum noise levels generated by vehicular traffic along Bailey Avenue and Santa Teresa Boulevard and day-night average noise levels generated by the interior firing range would not exceed City standards or the ambient noise environment at the nearest residential receivers. **[Less Than Significant Impact]**

3.4.3.3 *Construction Noise*

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction noise lasts over extended periods of time. Where noise from construction activities exceeds 60 dBA Leq and exceeds the ambient noise environment by at least 5 dBA Leq at noise-sensitive uses in the project vicinity for a duration of one year or more, the impact would be considered significant.

Construction activities generate considerable amounts of noise. Construction-related noise levels are normally highest during the construction of project infrastructure. The infrastructure phase of construction requires heavy equipment that generates the highest noise levels. Typical hourly average construction generated noise levels are about 81 dBA to 88 dBA measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). The highest maximum noise levels generated by project construction would typically range from about 90 to 98 dBA at a distance of 50 feet from the noise source. Construction-related noise levels are normally less during building framing, finishing, and landscaping phases. There would be variations in construction noise levels on a day-to-day basis depending on the specific activities occurring at the site.

The project would be completed in phases beginning with the fill of the site, construction of the detention basin, and construction of the policy academy. Construction of Phase I is planned in 2008 and would be completed in about a six month period. Full buildout for the rest of the campus would be completed between 2020 and 2025, and the construction duration would last approximately 18 to

24 months.

Construction noise levels are calculated to range from 43 to 50 dBA Leq at the nearest noise-sensitive residential receivers. Construction noise levels would generally fall below ambient noise levels resulting from vehicular traffic along local roadways. Project construction activities would not generate noise levels exceeding 60 dBA Leq and the ambient by 5 dBA or more and this is a less than significant impact. **[Less Than Significant Impact]**

3.4.4 Mitigation Measures

3.4.4.1 *Noise Impacts to the Project*

MM NOI – 1: The following mitigation measures would reduce the potentially significant impacts to a less-than-significant level:

- Retain a qualified Acoustical Specialist during project design to prepare a detailed acoustical analysis of interior noise reduction requirements and specifications for all noise-sensitive interior spaces within 260 feet of the center of Bailey Avenue (e.g., classrooms, offices, etc. in the Main Building). Results of the analysis, including the description of the necessary noise control treatments, shall be incorporated into project design and building plans prior to sending the project out to bid and prior to the awarding construction contract.

- Building sound insulation requirements shall include forced air mechanical ventilation in noise environments exceeding 60 dBA DNL.

3.4.5 Conclusion

Implementation of the proposed mitigation measures will reduce noise impacts to a less than significant level. **[Less Than Significant With Mitigation]**

3.5 HAZARDOUS MATERIALS

The following discussion is based upon a Phase I Environmental Site Assessment and Soil Evaluation prepared by *Strategic Engineering & Science, Inc*. in May 2007. This report is located in Appendix E of this EIR.

3.5.1 Existing Setting

Portions of the site were agriculturally cultivated as early as 1939, with the entire project site cultivated by 1948. A golf course was constructed on the project site during the late 1960s to early 1980s. Following the closure of the golf course, the project site was again agriculturally cultivated. The project site is currently cultivated with wheat. Standard agricultural and golf course greens keeping practices likely included application of agricultural chemicals to the project site. To evaluate this concern, eight surface soil samples were collected at locations throughout the project site. The samples were analyzed for arsenic, lead, mercury, and organochlorine pesticides. Detectable concentrations of pesticides and metals were either below regulatory limits or consistent with background concentrations for the region.

Off-site uses were surveyed to determine if they store, use or generate hazardous materials according to regulatory databases. The existing IBM Campus and the AT&T central office building (on Bailey Avenue across from the project site) are hazardous materials users and/or hazardous waste generators and the AT&T site has an above ground storage tank present on-site. Listing as a user or generator of hazardous materials does not necessarily mean that contamination has occurred on the site. There was also a former gas station that had a leaking underground storage tank in the project area which case was closed in November 1996.

3.5.2 Hazardous Materials Impacts

3.5.2.1 *Thresholds of Significance*

For the purposes of this EIR, a hazardous materials impact is considered significant if the project would:

- create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials; or
- 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; or
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school; or
- construct a school on a property that is subject to hazards from hazardous materials contamination, emissions or accidental release; or
- create a significant hazard to the public or the environment from existing hazardous materials contamination by exposing future occupants or users of the site to contamination in excess of soil and ground water cleanup goals developed for the site; or
- (for a project located within an airport land use plan) result in a safety hazard for people residing or working in the project area; or
- (for a project within the vicinity of a private airstrip) result in a safety hazard for people residing or working in the project area; or

3.5.2.2 *Impacts Discussion*

Based on soil sampling, historic agricultural use and former golf course does not pose a hazardous materials concern to the proposed project. None of the nearby properties are likely to significantly impact the project site.

3.5.3 Conclusion

The proposed project would not create a significant hazard to people or the environment. No mitigation measures are required or proposed. **[Less than Significant Impact]**

3.6 GEOLOGY, SOILS AND SEISMICITY

The following discussion is based upon a Geologic Hazards Evaluation prepared by *Strategic Engineering & Science, Inc*. in May 2007. This report is located in Appendix F of this EIR.

3.6.1 Existing Setting

3.6.1.1 *Regional Geology*

The project site is located within the Coast Ranges at the eastern edge of the Santa Cruz Mountains and within the northwest sector of the Coyote Valley. The Coyote Valley is a northwest-trending, small structural basin that extends from the Coyote Narrows where the bedrock nearly closes off the basin to the axis of a large alluvial fan, approximately seven miles to the southeast. This fan was formed by discharge of sediments from Coyote Creek which once flowed through a gap in the bedrock, is now occupied by the Anderson Dam. The bedrock beneath Coyote Valley generally deepens to the northeast across valley, but shallows along the axis of the valley, which forces groundwater close to the surface at the northwest end of the valley. The valley fill sediments range in age from Plio-Pleistocene to Holocene and are up to about 600 feet in thickness on the fault-bounded eastern edge of the valley, and "pinch out" or become shallower on older bedrock units along the western edge of the valley.

Rocks of the Jurassic-Cretaceous Franciscan Assemblage flank the northwest area of the Coyote Valley, but the project site is underlain entirely by Pleistocene and Holocene poorly consolidated alluvium. The Franciscan Assemblage rock types in this area are predominantly a mixture of different rocky materials and serpentinized ultramafic[12] rocks.

3.6.1.2 *Geologic Site Surface Conditions*

The 55-acre project site is located near the northwest area of the Coyote Valley and is bordered by Bailey Avenue to the northeast and open space and agricultural fields on the three other sides. The surface topography is nearly flat but slopes gently up to the northeast. Remnant low hummocks and swales are present from grading done previously when the project site was used as a golf course. These golf course features have almost been eliminated by post golf course cultivation. A small water feature is present that was built for the golf course.

There are no structures or other notable development currently at the project site. Observations of Bailey Road indicate that a few feet of fill was placed in the area of the project site for road construction. The project site at the present time is under wheat cultivation.

3.6.1.3 *Shallow Soil Conditions and Groundwater*

Four borings were completed to a maximum depth of 51.5 feet as part of a preliminary geotechnical investigation (Terrasearch, 2007). These borings identified stiff silty clay at the surface that varied from 8 to 18 feet in thickness, and was underlain by dense gravelly sand with alternating lenses of very stiff to hard sandy clay. Bedrock was encountered at a depth of 45 feet. The area is mapped as being underlain by Holocene Basin Deposits which generally consist of fluvial-derived, near-surface silty clays underlain by alternating lenses of sand and silty clays. At this location with flat

[12] Dark igneous rock, over 90 percent of whose content contains high levels of iron and magnesium.

topography, the subsurface is dominated by fine-grained sediments.

The depth to groundwater in the recent borings (Terrasearch, 2007) varied from three feet deep near the former golf water feature, to a maximum of 15 feet in a boring completed further from the water feature. The water levels in the borings suggest that the water feature is recharging the local groundwater table, at least during the climatic conditions as measured in early January 2007. It should be noted that groundwater conditions can and will vary depending on the amount and timing of rainfall. The existing water feature appears to go dry in the summer, and therefore, the groundwater is estimated to likely be a few feet deep in the winter months, but several feet deep in the summer months.

3.6.1.4 *Geologic Hazards*

Fault Surface Rupture Hazard

The project site is not located within a State of California Earthquake Fault Hazard Zone. The Shannon Fault was mapped by Cooper-Clark Associates (1974) to cross the northeastern corner of the project site and continue across the entire valley. More recently the projected location of the fault was mapped by McLaughlin (2001) as concealed where it enters the valley from the bedrock northwest of the project site, and ending a few hundred feet past Bailey Avenue. The Cooper-Clark mapping was completed for the City of San José by local consultants to identify potentially active faults that require more detailed study. A City of San José Potential Fault Hazard Zone (1983) was established that extends to Bailey Avenue, but does not continue southeast onto the project site. The County of Santa Clara has placed a fault rupture hazard zone that follows the Cooper-Clark trace of the fault across the entire Coyote Valley (County of Santa Clara, 2002). Published maps by Wentworth, et al. (1999), Rogers and Williams (1974), and Dibblee (1973) do not show the Shannon Fault extending southeast beyond Bailey Avenue. All maps show the fault to be concealed beneath the valley fill sediments after entering the basin (Coyote Valley) from the bedrock upland areas to the northwest.

Several field investigations have been performed in the area to evaluate the mapped location of the Shannon Fault, mostly in the area north of Bailey Avenue. South of Bailey Avenue, three magnetometer surveys were performed (Terratech, 1983; Louke, 1983) to evaluate the area for the presence of the Shannon Fault mapped by Cooper-Clark (1974). One line showed a magnetic anomaly at the approximate location of the mapped fault trace, but adjacent parallel survey lines did not. The results of that work were inconclusive, and no fault trenching was performed to evaluate the age or activity of any faulting.

Fault trenching, test pits, deep borings, and geophysical surveys were completed north of Bailey Avenue to evaluate the location and activity of the Shannon fault. Deep borings performed by (Lowney-Kaldveer, 1974) across the Cooper-Clark mapped trace identified a possible offset in the bedrock surface possibly related to faulting though other interpretations are possible. The most recent work was performed in 1996 (Engeo, 2006) and included a 165 foot long fault evaluation trench located perpendicular to the Cooper-Clark fault location. No fault-related shearing was observed in this trench and the oldest sediments were estimated to have begun forming at about 13,000 ka (calendar years ago). This work concluded that that Holocene surface rupture has not occurred at the area investigated.

Strategic Engineering & Science, Inc. completed a review of six sets of historical stereo-paired aerial

photographs for indications of features that would be indicative of possible faulting. Several linear features were observed in the project area that were attributable to mapped geologic contacts, erosion channels, and fence lines, but none of them were continuous across properties nor between successive years. Particularly absent were any indications of lineaments northwest of the project site where the Shannon Fault exits the bedrock units and enters the basin fill alluvium of the Coyote Valley. *Strategic Engineering & Science, Inc*. concluded that there is no evidence in this area of the Coyote Valley that the Shannon Fault is sufficiently active to warrant a setback for protection of habitable structures from surface rupture hazard.

Seismicity and Seismic Hazards

The project site is located within the greater San Francisco Bay area which is considered a seismically active area subject to recurring large earthquakes. The major active faults in the area are part of the San Andreas Fault System which includes the Calaveras Fault located about six miles east of the project site, and the San Andreas Fault located about 10 miles west of the Site. The epicenter of the 7.1 magnitude 1989 Loma Prieta earthquake was located about 12 miles away to the southwest. The epicenter of the 6.0 magnitude 1984 Morgan Hill earthquake along the Calaveras Fault was about 9.5 miles southeast of the Site. Several small and active faults are located closer to the project site, such as the Coyote Creek fault located along the eastern edge of the Coyote Valley, and the Sargent fault located about eight miles southwest of the Site. These faults are considered active, but are subsidiary faults with longer recurrence intervals and smaller earthquake events and thus are judged to contribute negligibly to the seismic hazard risk in comparison to the longer, and more active fault such as the San Andreas Fault. It should be expected that earthquakes could produce strong ground shaking at the project site.

A review of the seismicity for the Shannon Fault in the project area indicates that there were no seismic events along this section of the fault during the period covered by a published record of seismicity from 1970 to 2003, nor from 1967 to 1993 in another study. Both studies show that a few low magnitude seismic events (<2.9M) were recorded further southeast into the Coyote Valley which may or may not be related to the Shannon Fault trace if it is extended across the Valley. The epicenters from these events are scattered and not aligned with the Cooper-Clark mapped southeast extension of the Shannon Fault.

Clustered seismicity was observed in these studies along this fault several miles northwest of the project site. Trench exposures of the fault at the Senator mine located west of the New Almaden mine show offset of soils estimated to be Late Pleisotocene. Further north in the Los Gatos and Campbell area contractional deformation occurred during the 1989 Loma Prieta earthquake that was coseismically related.

Liquefaction and Lateral Spreading Potential

Soil liquefaction is a loss of strength and support capacity that occurs during seismic stresses imposed by earthquakes. Soils most susceptible to liquefaction are loose to medium dense and saturated granular soils. Recent studies have also shown that some low plasticity silts and clays may also be susceptible to liquefaction. Liquefaction can result in ground rupture, bearing failure, lateral spreading, and/or ground settlement. Lateral spreading can occur as horizontal spreading toward an unsupported, open area such as a water feature, channel, or deep excavation. Drilling and liquefaction analysis on the site concluded that potentially liquefiable conditions exist around the pond area at the site that could result in up to approximately 1.5 inches of differential settlement

(Terrasearch, 2007).

Based on this information, the project site is likely to have moderate to high liquefaction potential that will need to be considered during project development. Lateral spreading may also be an issue for the stability of the water feature banks depending on the subsurface soils, saturation conditions, and water feature depth.

Differential Settlement

Strong earthquake shaking can cause non-uniform settlement of soils resulting in an irregular surface. Factors that increase this hazard include variations in soil compaction and composition over short distances, liquefaction potential, and the magnitude of the loading on the soil from fills and structures. Some grading has occurred at the project site to create the former golf course. This grading does not appear to have involved more than a few feet of soil excavation and soil mounding to create irregularities in the fairways. Site grading can easily mitigate these irregularities.

Expansive Soils

The northern end of the Coyote Valley has been identified to have expansive soils. Such soils can experience significant volume changes with variations in moisture content usually during seasonal cycles of wetting and drying. Expansive soils will swell when wetted, and will shrink when dried. Such changes can cause distress to building foundations, slabs on grade, pavements, and other surface structures if not designed properly.

Compressible Soils

The presence of near-surface poorly consolidated soils or near surface peat deposits can result in compressible soils and consolidate or settle under structural loads. Such deposits are usually associated with very young, Holocene Bay mud or near-shore, buried marsh deposits. The Site is mapped as being underlain by Holocene alluvial fan deposits which are unlikely to have characteristics of compressible soils. Compressible soils have been mapped by the County of Santa Clara (2004) northeast of the project site, but not at the project site.

Landslide Potential

The Site topography is nearly flat and no steep hill slopes are close enough to represent a potential debris flow hazard to the project site.

3.6.2 Geology and Soils Impacts

3.6.2.1 *Thresholds of Significance*

For the purposes of this project, a geologic impact is considered significant if the project would:

- expose people or structures to substantial adverse effects including risk of loss, injury or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic related ground failure (including liquefaction), landslides, or expansive soil; or
- expose people or property to major geologic or soils hazards that cannot be mitigated through the use of standard engineering design and seismic safety techniques; or
- cause substantial erosion or the loss of topsoil.

3.6.2.2 *Geology, Soils and Seismicity Impacts*

Expansive Soils

The northern end of the Coyote Valley has been identified to have expansive soils. Expansive soils will swell when wetted, and will shrink when dried. Such changes can cause distress to building foundations, slabs on grade, pavements, and other surface structures if not designed properly. If expansive soils are identified in project design-level studies, potential damage to structures on the site will be minimized through standard design and construction techniques. **[Less Than Significant Impact]**

Seismicity and Faults

As discussed above, earthquakes could produce strong ground shaking at the project site during the lifetime of the structures to be built. Grading shaking could damage buildings, roadways and utilities. In addition, the project site has a moderate to high potential for liquefaction, lateral spreading and differential compaction.

The presence of soils with potential for liquefaction and differential compaction could result in impacts to future buildings and infrastructure on the site. The project will be designed and constructed in accordance with the Uniform Building Code guidelines for Seismic Zone 4 to avoid or minimize potential damage from seismic shaking on the site. Structures and foundations will be designed based upon the results of design-level studies completed during the final design phase. With incorporation of these measures the project will not expose people or property to significant impacts associated with soil or the geologic conditions of the site. **[Less Than Significant Impact]**

3.6.3 Conclusion

The proposed project will include standard engineering techniques in conformance with the Uniform Building Code requirements for Seismic Zone 4 and design-level studies; this will reduce the impacts from geology and soils hazards on the project to a less than significant level. **[Less than Significant Impact]**

3.7 HYDROLOGY, DRAINAGE AND WATER QUALITY

The following discussion is based upon a Drainage Analysis prepared by Schaaf & Wheeler in May 2007. This report is located in Appendix G of this EIR.

3.7.1 Existing Setting

Currently, the proposed project site is undeveloped. In the northern center of the site is an 110,900 square foot remnant water feature from the former golf course. An existing drainage ditch runs generally parallel to the southern boundary of the site and off the site, only crossing the southeastern corner of the site. At this location the ditch invert (lowest point or bottom of ditch) elevation is approximately 248.7 feet, and the banks are at elevation 252 feet. The ditch continues about 2,600 feet to the northeast before discharging to Fisher Creek, upstream of Bailey Avenue. The ditch also drains runoff from the hillside areas and other properties west of the site. At Fisher Creek, the ditch joins with another ditch which drains the IBM property and upstream hillside areas north of Bailey Avenue. The project site slopes generally downward in a southeasterly direction towards the existing ditch. Based on the existing topography, most of the site drains to the existing ditch.

The Federal Emergency Management Agency (FEMA) effective Flood Insurance Rate Map (FIRM) shows the eastern portion of the site in a Zone A1 designated floodplain. The existing FEMA floodplain is shown in Figure 10. This floodplain area is primarily where athletic fields are proposed by the project; however one building is proposed in the floodplain area. The effective FIRM is dated 1982. Subsequent to its publication, FEMA changed its policies regarding the flood protection provided by levees. Existing levees along both Coyote Creek and Fisher Creek do not meet FEMA standards and would not be considered if the area were reevaluated for a new FIRM. The flooding in the vicinity of the site may be more widespread using the updated FEMA guidelines, therefore, with selective failure of the Fisher Creek levees.

Approximately a third of the project site is located within the existing FEMA 100-year floodplain based upon the 1982 FIRM. Storage within the floodplain on the site and other properties acts to attenuate the peak flows in Fisher Creek. FEMA has designated a large portion of the Fisher Creek overbank floodplain west of the existing Fisher Creek channel as a "volumetric floodway." The floodway has been calculated to allow fill on the edges of the existing floodplain allowing an increase of one foot in the 100-year base flood elevation.

Flood Hazard From Dam Failure

The only reservoir situated topographically upgradient of the project site is Anderson Reservoir, which is located at the southeast end of the Coyote Valley, about six miles to the south of the project site. Evaluation of the safety of the Anderson Dam is within the jurisdiction of the Federal Energy Regulatory Commission (FERC) and the California Division of Safety of Dams. The most recent FERC five-year safety review of the dam was performed by GEI Consultants, Inc., dated December, 2001. Review of the report indicates that the safety of the dam is acceptable by current standards. No improvements or upgrades to the dam are required based on the results of the year-year review.

In the very unlikely event of a seismic event causing a sudden failure of the Anderson Dam, the Coyote Valley could be largely flooded which could include the project site. Flooding is not expected from tsunamis or seiches given the large distance from the San Francisco Bay or other open bodies of water. The potential for project site inundation from dam failure, tsunamis or seiches is considered remote.

3.7.2 Hydrology, Drainage and Water Quality Impacts

For the purposes of this project, a hydrologic impact is considered significant if the project would:

- violate any water quality standards or waste discharge requirements; or
- substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted); or
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site; or
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site; or
- create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or
- otherwise substantially degrade water quality; or
- place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map; or
- place structures within a 100-year flood hazard area, such that flood flows would be impeded or redirected; or
- expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- be subject to inundation by seiche, tsunami, or mudflow.

3.7.2.1 *Floodplain Impacts*

The Gavilan Coyote Campus master site plan has been used to evaluate the potential effects of the proposed project on the existing floodplain and floodway. The Campus Master Plan includes locations for the buildings, parking lots, and playing fields at project buildout.

The proposed facilities for the Campus would encroach into the existing FEMA 100-year floodplain and the FEMA floodway. The athletic fields, including the football stadium, would be within the 100-year floodplain. In addition, the southern portion of the football stadium and the access road south of the stadium would be within the floodway area.

In general, limited fill within the 100-year floodplain would not have a significant effect on flood conditions. However, the District proposes to flood-protect most of the stadium access road to protect the main athletic facilities during a flood event. This would also include fill within the FEMA floodway. Based on FEMA guidelines, fill within the floodway would only be allowed if the

project modified the floodway and demonstrated that the fill would not increase the calculated floodway water surface elevation by more than one foot. In general, this would require a balanced grading concept within the floodway to allow fill in portions of the floodway by excavating other areas within the floodway to compensate for the fill area.

At initial review of the existing site conditions and the proposed site plan indicates that a large portion of the FEMA floodplain area is above the FEMA 100-year base flood elevation. This evaluation was based on recent topographic information with more detail than the cross sections used for the 1982 Flood Insurance Study analyses. A new hydraulic analysis was prepared for the reach of the Fisher Creek overbank area from the Fisher Creek confluence approximately 4,000 feet upstream, to the limits of the topographic information approximately 2,600 feet south of Bailey Avenue and 1,250 feet south of the project site. The hydraulic analysis was based on the same Hydrologic Engineering Center (HEC2) computer model used for the original 1982 study, with new cross section information from the current topography. The cross section locations, flow rates and roughness factors were not changed. This is called a 'revised effective model' for FEMA project reviews.

The results of the hydraulic analysis are shown in Figure 11 as the floodplain based on HEC2 analysis. The revised 100-year floodplain does not extend as far on the site, particularly in the areas near Bailey Avenue. The revised floodplain does reach two buildings (portions of the Gym and Wing B) and the parking area along the south property line. Almost all of the area on the site within the revised floodplain would be affected by shallow flooding less than one foot deep. Based on current FEMA mapping guidelines, areas of shallow flooding less than one foot deep can be mapped as Zone X and excluded from insurance requirements. In addition, Zone X areas would not be included in floodway areas. To formally redefine the extent of the 100-year floodplain and floodway would require a FEMA Letter of Map Revision (LOMR). Because the flood depths on the site are very shallow, it would be possible to balance cut and fill within the floodplain area to account for changes in the floodplain volume. The southeastern portion of the property is within the floodplain, and is proposed for secondary soccer fields, water quality swales, and stormwater detention. Also, portions of the parking areas along the south property line could remain relatively low to continue to allow shallow flooding during the 100-year flood event.

The proposed Campus development includes a Phase 1 project which is located in the northwestern corner of the project near Bailey Avenue. The proposed Phase 1 project is shown in Figure 7. The Phase 1 project would be outside the effective FEMA floodplain and floodway, and the revised 100-year floodplain as shown in Figure 12. There may be localized grading within the revised floodplain for a Phase 1 detention basin.

The existing floodplain storage acts to attenuate the peak flows during large flood events and reduces the extent of downstream flooding. The Coyote Valley Research Park (CVRP) project and Coyote Valley Specific Plan both include large lake areas to provide flood storage and maintain the existing peak flows. The CVRP has started construction of the Fisher Creek detention storage area near Santa Teresa Boulevard. The construction to date has included improvements to Fisher Creek, the Santa Teresa Boulevard crossing, and the detention storage area. The CVRP detention storage was designed to mitigate for increase flood flows from Fisher Creek due to flood storage and development runoff changes due to development in North Coyote Valley, including the Campus site. However, the planned improvements at Bailey Avenue, including a new bridge for the relocated Fisher Creek, have not been constructed. Increased runoff due to reduced floodplain storage may increase flood elevations at Bailey Avenue and on the property south of Bailey Avenue. This includes one farm house, associated farm buildings, and the fruit stand business at Santa Teresa Blvd.

Impact HYD-1: The proposed project would encroach into the existing FEMA 100-year floodplain and the FEMA floodway and could significantly impact floodplain storage in the Fisher Creek watershed. [**Significant Impact]**

3.7.2.2 *Off Site Drainage Impacts*

The existing drainage system on the project site includes a ditch from the west side of the property to the existing on-site water feature. This ditch drains hillside areas upstream of the site, but has very limited capacity. Most of the ditch is less than one foot deep. The proposed Phase 1 access road would cut off the existing drainage ditch. The flow from the ditch would be routed through the southwest corner of the site and leave the site over the south boundary. This is the existing drainage pattern for most of the runoff which reaches the site from the west. Therefore, the Phase 1 development would have no significant effect on the existing conditions, because it would reroute drainage across the site to a different area but mimic the existing drainage discharging to the same location.

The entire campus master plan buildout would construct buildings and parking lots in the southwest corner of the site and may block offsite overland flows from entering the site. The Campus Master Plan includes a collection ditch along the western property line to collect the offsite runoff (from upstream properties to the west) and convey the runoff to the south property line and along the south property line to discharge the flow in a similar area as the existing conditions. The ditch was designed to convey the estimated 100-year flood flow for the hillside and upstream areas west of the site. Therefore, buildout of the campus master plan would not worsen off-site flooding from diverting upstream runoff. **[Less Than Significant Impact]**

3.7.2.3 *Hydrologic Impacts*

The existing drainage from the project site flows to the existing drainage ditch southeast of the site. The existing ditch does not have capacity for the existing 10-year runoff from the site and other upstream areas which drain to the ditch. The ditch overflows frequently during the winter. Reportedly, the fields on portions of the site and near the ditch are generally too wet to farm during the winter season, due to overflows from the ditch.

Increased runoff from development of the project site may increase flooding on the adjacent properties, and may increase peak flood flows to Fisher Creek and downstream to Coyote Creek. While a small estimated increase in runoff from the site may not represent a significant impact farther downstream, cumulative effects of all approved and pending development projects may have a significant effect on flood conditions in Fisher Creek or Coyote Creek. Other projects in the watershed have been required to mitigate for similar potential increases in flood flows.

The proposed project includes a detention basin to maintain existing condition peak flow and durations after development, based on the requirements of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) hydromodification management plan (HMP) procedures. Hydrograph modification (also known as Hydromodification) refers to the impact of urbanization on storm water runoff and stream flows. Urbanization of watersheds not only increases the peak flow delivered to streams, but also increases the frequency and duration of flows in streams. This combination of higher peaks and increased volume can result in erosion of creek beds and banks and in excess deposition of sediment further downstream. Therefore, hydrograph modification management plan provisions have been adopted in the municipal storm water National Pollutant

Discharge Elimination System (NPDES) permit for Santa Clara County.

NDPES standards call for management of increases in peak runoff flow and volume to the maximum extent practicable where such increased flow and/or volume could cause impacts downstream. The current Regional Water Quality Control Board (RWQCB) permit requires implementation of HMP controls for projects with more than one acre of new or replacement impervious area. The proposed Campus development would exceed one acre of impervious area for the entire Campus and for Phase 1. Examples of downstream impacts requiring management include scour of river beds, erosion of river banks, and silt deposition. If these impacts are attributable to changes in the amount or timing of runoff, they should be mitigated by site design modifications.

Hydromodification is generally controlled by detaining and slowing runoff in a way that mimics pre-project conditions. This can be achieved by infiltrating excess runoff into the ground and/or by detaining runoff in basins, ponds, wetlands, underground vaults, etc. The goal of HMP is to design a detention system such that runoff from the developed site will match the pre-project flow frequency conditions particularly for small rainfall events.

Two separate HMP detention basins were sized for the campus site, one for the Phase 1 development, and a second replacement HMP basin for the entire campus buildout. The HMP basins have been sized using the Bay Area Hydrology Model (BAHM) as calibrated for Santa Clara County.

The proposed project conditions for Phase 1 and the entire campus buildout were based on the Campus Master Plan. These figures have been used to calculate acreages, amounts of imperviousness, underlying soil types, and other characteristics of the campus that affect the HMP basin sizing.

Rainfall

The Santa Clara County Mean Annual Precipitation (MAP) map for the site vicinity indicates a mean annual precipitation of 19 inches. The site of the San José rainfall gage, which is used as a reference gage for Santa Clara County in the BAHM, has a MAP of 14.5". Therefore, the project site has a MAP 1.31 times larger than the reference gage. The BAHM uses the factor of 1.31 to calculate the rainfall for the project site.

Soils

The soil characteristics influence the permeability of the pervious areas of the site, directly affecting the stormwater runoff. The Santa Clara County Soil Survey was used to determine the soil types underlying the project site. The project site is underlain by four different soils types – Clear Lake clay; Clear Lake clay, drained; Pacheco clay loam; and Sunnyvale silty clay, drained. The first two soils are classified as Hydrologic Group D with low permeability and high runoff potential. The Pacheco clay loam is classified as Group B or C, when drained, and has moderate permeability. The last soil, Sunnyvale silty clay, is classified as Group C with a relatively low permeability. The Phase 1 site is underlain by the Clear Lake clay, drained, and Pacheco clay loam. The Phase 1 site mostly overlays a soil with relatively moderate permeability, whereas only a fraction of the entire Campus site contains the B/C Group soil. The soil of a higher permeability has lower stormwater runoff and tends to produce larger HMP basin sizes per acre.

Land Use

The Phase 1 and entire Campus sites currently have no urban development, so all of the pre-development area is assumed to be pervious. The proposed impervious areas were estimated from the site plans parking lots, roads, and buildings. These estimates are shown in Table 18 and were used in the HMP modeling. Where appropriate for the model setup, land uses for flat slopes were used, which is described in the BAHM model as 0-5 percent. The existing slope of the site is calculated as 0.65 percent.

Table 18:
Land Use Areas (in acres)

	Phase 1		Entire Campus	
	Pre-development	**Post-development**	**Pre-development**	**Post-development**
Pervious Surfaces				
B soil grass	6.18	-	9.0	-
C/D soil grass	2.28	-	43.9	2.4
C/D soil urban landscaping	-	1.63	-	25.6
Subtotal	**8.46**	**1.63**	**52.9**	**28**
Impervious Surfaces				
Roads	-	1.22	-	4.10
Roofs	-	0.76	-	4.07
Parking Lots	-	4.85	-	11.75
Sidewalks	-	-	-	4.98
Subtotal	0.00	**6.83**	0.00	**24.9**
Total	**8.46**	**8.46**	**52.9**	**52.9**

For each of the two analyses, conditions were input into the respective BAHM model for two different scenarios – a pre-project scenario and a post-project scenario. The post-project scenario includes the proposed HMP basin in the calculations. Rainfall is based on the specified site location. A map of Santa Clara County is provided in the program and, as one of the first steps of setting up the model, the general location of the project site is marked on the map.

The other input parameters used in running the BAHM model for the two different analyses are detailed in Table 18, above. The "Pre-development" columns give values used to represent the existing conditions, and the "Post-development" columns give values used to represent the project conditions. Since the BAHM model treats C and D soils as the same, it was not necessary to divide the areas of various land uses between these two types of soil.

The BAHM was used to test various HMP basin sizes and configurations until the mitigated post development runoff data was in conformance with the HMP criteria. The mitigated post-development curve must match the pre-development curve between the limits of 10 percent of the pre-development 2-year stormwater runoff flow and the 10-year stormwater runoff flow. Table 19 lists the existing condition hydrologic parameters for Phase 1 and the entire Campus project as

calculated within the BAHM. The mitigated flows exiting the HMP basins are also given for comparison. By design of the HMPs mitigated flows should be the same or less than the pre-development flows.

Table 19:
Stormwater Runoff Flows (in cfs) for HMP Analysis

	Phase 1		Entire Campus	
	Pre-development	**Project Mitigated**	**Pre-development**	**Project Mitigated**
10% of the 2-Year	0.21	0.05	1.50	0.78
2-Year	2.06	0.48	14.96	7.81
10-Year	4.03	3.39	27.09	24.77

Table 20 shows the results of the HMP pond sizing for Phase 1 and the entire Campus development. The final design of the HMP ponds will depend on the final development, the location and configuration of the ponds. The final pond sizes may be larger if the average depths are reduced, or smaller if the ponds are deeper, as long as the volume is maintained.

Table 20:
Detention Basin Details

		Phase 1	**Project**
Maximum Basin Area (acres)		0.55	1.54
Basin Bottom Area (acres)		0.39 (130' by 130')	1.27 (235' by 235')
Maximum Basin Depth (feet)		4.0	4.2
Approximate Volume (acre feet)		1.6	5.4
Side Slope Ratio		3:1	3:1
Orifice #1	Diameter (inches)	2.1	5.9
	Invert above pond bottom (feet)	0.00	0.00
Weir #1	Width (feet)	1.5	3.0
	Invert above pond bottom (feet)	3.00	2.75

The detention basins adequately meet the post-development flows to match the flows of the pre-developed conditions within the required parameters of the 10-year flood event and 10 percent of the two-year flood event. **[Less Than Significant Impact]**

3.7.2.4 *Water Quality Impacts*

Long-Term Water Quality Impacts

The entire project site is covered with pervious surfaces. The proposed project would increase the amount of impervious surfaces on the site by approximately 53 percent. The proposed project, therefore, would increase the amount of impervious surfaces on-site, thereby, increasing the amount of runoff from the site. Storm water from urban uses contains metals, pesticides, herbicides, and

other contaminants such as oil, grease, lead, and animal waste. Runoff from the proposed project may contain oil and grease from vehicles, and sediment from the landscaped areas.

The project will disturb more than 10,000 square feet of impervious surfaces. The project, therefore, is subject to the NPDES Provision C.3 for post-construction runoff. All collected surface runoff from this area will be conveyed to a stormwater treatment control device prior to release from the site.

The project proposes a combination of storm water Best Management Practices (BMPs) and Treatment Control Measures (TCMs) and will implement a stormwater control plan to address Provision C.3 of the NPDES permit. The project will conform to stormwater/urban runoff regulations in place prior to the start of construction.

Impact HYD-2: The proposed project will increase impervious surfaces on the site and may result in pollutants in post-project stormwater. **[Significant Impact]**

Short-Term Water Quality Impacts during Construction

Construction of the proposed college campus, as well as grading and fill activities may result in temporary impacts to surface water quality. Construction of the project buildings and parking and circulation areas would also result in a disturbance to the underlying soils, thereby increasing the potential for sedimentation and erosion. When disturbance to underlying soils occurs, the surface runoff that flows across the site may contain sediments that are ultimately discharged into the storm drainage system.

Impact HYD-3: Construction of the proposed project could cause a significant temporary increase in the amount of contaminants in storm water runoff during construction. **[Significant Impact]**

3.7.3 Mitigation Measures

3.7.3.1 *Floodplain Impacts*

MM HYD – 1: The following mitigation measures would reduce the potentially significant impacts to a less-than-significant level:

- The proposed athletic fields on the southeast side of the site are located within the floodplain and shall be graded to remain similar to existing ground elevations. The fields could be flooded briefly every few years, and flooded for several days in a large flood event.

- To mitigate for potential increased runoff from development, the proposed project includes an HMP detention basin to maintain the existing flow-duration conditions for runoff from the site. The size of the HMP basins for either the Phase 1 or entire Campus developments would depend on the final depth and configuration. At a minimum, the HMP basin would meet the RWQCB requirements to limit erosion within the downstream channels.

3.7.3.2 *Post-Construction Mitigation Measures*

MM HYD-2: The following mitigation measures, based on RWQCB Best Management Practices, are included in the proposed project to ensure compliance with NPDES permit requirements to reduce post-construction water quality impacts:

- The project shall conform to stormwater/urban runoff regulations in place prior to the start of construction.
- When the construction phase is complete, a Notice of Termination (NOT) for the General Permit for Construction will be filed with the RWQCB. The NOT will document that all elements of the SWPPP have been executed, construction materials and waste have been properly disposed of, and a post-construction stormwater management plan is in place as described in the SWPPP for the project site.
- All post-construction Treatment Control Measures (TCMs) will be installed, operated, and maintained by qualified personnel.
- The District will keep a maintenance and inspection schedule and record to ensure that the TCMs continue to operate effectively for the life of the project.

3.7.3.3 *Construction Mitigation Measures*

MM HYD-3: The following mitigation measures, based on RWQCB Best Management Practices, are included in the proposed project to ensure compliance with NPDES permit requirements to reduce construction related water quality impacts:

- During construction, burlap bags filled with drain rock will be installed around storm drains to route sediment and other debris away from the drains.
- During construction, earthmoving or other dust-producing activities will be suspended during periods of high winds.
- During construction, all exposed or disturbed soil surfaces will be watered at least twice daily to control dust as necessary.
- During construction, stockpiles of soil or other materials that can be blown by the wind will be watered or covered.
- During construction, all trucks hauling soil, sand, and other loose materials will be covered and/or all trucks will be required to maintain at least two feet of freeboard.
- During construction, all paved access roads, parking areas, staging areas will be swept daily (with water sweepers).
- During construction, vegetation in disturbed areas will be planted as quickly as possible.

- Prior to construction grading for the proposed land uses, the District will file a "Notice of Intent" (NOI) to comply with the General Permit administered by the Regional Board and will prepare a Stormwater Pollution Prevention Plan (SWPPP) which identifies measures that would be included in the amendment to minimize and control construction and post-construction runoff. The following measures would be included in the SWPPP:

  - Preclude non-stormwater discharges to the stormwater system.
  - Effective, site-specific Best Management Practices for erosion and sediment control during the construction and post-construction periods.
  - Coverage of soil, equipment, and supplies that could contribute non-visible pollution prior to rainfall events or perform monitoring of runoff.
  - Perform monitoring of discharges to the stormwater system.

- The certified SWPPP will be posted at the site and will be updated to reflect current site conditions.

3.7.4 Conclusion

Implementation of the proposed mitigation measures will reduce hydrology and flooding impacts to a less than significant level. **[Less Than Significant With Mitigation]**

3.8 BIOLOGICAL RESOURCES

The following discussion is based upon a Biological Evaluation prepared by *H.T. Harvey & Associates, Inc*. in June 2007. This report is located in Appendix H of this EIR.

3.8.1 Existing Setting

The project site is located within a narrow constriction of the Santa Clara Valley between the Santa Cruz Mountains in the west and the Mount Hamilton Range in the east. The site is located along the eastern edge of the Santa Teresa Hills, south of Tulare Hill which forms the "Coyote Narrows." Bailey Avenue bounds the project site to the northwest and cultivated farmland surrounds the remainder of the parcel. Across Bailey Avenue, ruderal, undeveloped land and farmland, as well as an IBM office complex, are present. Fisher Creek channel lies approximately 2,000 feet east of the project site.

3.8.1.1 *Biotic Habitats*

Five biotic habitats were identified on the project site: agricultural, seasonal wetland, ponds, ruderal grassland, and developed (refer to Figure 13). Table 18 summarizes the extent of these habitats on the site.

Table 18:
Acreage Summary of On-Site Habitats

Habitat Type	Acres	Percent of Total
Agricultural	46.2	85%
Seasonal Wetland	3.2	6%
Ponds	2.3	4%
Ruderal Grassland	1.7	3%
Developed	1.3	2%
TOTAL	**54.7**	**100%**

Agricultural

Vegetation

Substantial areas of the historical floodplain of Fisher Creek, which are underlain by water-saturated soils, have been intensively cultivated since the 1980s or earlier. As such, approximately 46.2 acres within the project site have been devoted to the production of agricultural commodities likely including such crops as oats, Italian ryegrass, alfalfa, and barley. During the 2007 site visit, grass species planted were at the seedling stage on the project site. Other species found in the planted fields, particularly along the interface of field and agricultural road or field and pond, included ruderal, weedy species such as scarlet pimpernel, sour grass, milk thistle, bristly ox-tongue, poison hemlock, and black mustard. A mostly dead valley oak is present in the agricultural fields in the western part of the site.

Wildlife

The agricultural fields generally provide lower-quality wildlife habitat than nearby non-native grasslands due to the disturbance to soil, vegetation, and wildlife associated with cultivation and harvesting of these fields, and because periodic cultivation removes most if not all of the vegetation. While this activity may briefly aid predators by exposing small mammals and invertebrates, it quickly reduces the value of these areas to local wildlife. California ground squirrels, California voles, and Botta's pocket gophers are present, though in low numbers, mostly in some peripheral areas of the fields. Because of the annual discing activity, these small burrowing animals are expected to occur infrequently in the interiors of the cultivated fields. Reptile species that occur in this habitat type on the project site include the western fence lizard and gopher snake. The aforementioned rodents along with lagomorphs such as black-tailed hares provide a prey base for foraging raptors such as Red-tailed Hawks. Mourning Doves, Brewer's Blackbirds, and House Finches feed on the seasonally abundant crops in these fields. Barn Swallows forage overhead during the spring and summer. During the rainy season, shorebirds such as Killdeer and Long-billed Curlews, as well as numerous gulls, have been observed foraging in recently disced or sparsely vegetated portions of these fields.

Seasonal Wetlands

Vegetation

A total of 3.2 acres of seasonal wetlands occur on-site. During surveys for jurisdictional waters (of the US) completed throughout the winter and spring of 2005 and 2006, these areas were observed to pond to a depth of one to three inches for up to a month before drying relatively quickly through a combination of surface drainage, evapotranspiration, and downward percolation. The relatively quick transition of the farm fields from a ponded surface water condition to a relatively dry soil surface condition is greatly facilitated by the presence of farm ditches and moderate field slope. Most of the seasonal wetlands on the site are disced annually during the dry season, and as a result, vegetation typical of less disturbed wetlands is poorly developed. Dominant plants in these wetlands include Italian ryegrass, toad rush, and downingia.

Wildlife

Due to their small size, the short-lived nature of ponding, and regular disturbance due to discing, the seasonal wetlands on the site provide only marginal habitat for wetland-associated wildlife species. These wetlands may be used as foraging habitat by amphibians such as Pacific treefrogs and western toads, but they do not pond long enough to provide suitable breeding habitat for these or other amphibians. Gulls, shorebirds such as Killdeer, Long-billed Curlews, Greater Yellowlegs, and Wilson's Snipe, and waterfowl such as Mallards and Northern Pintails forage in and around these wetlands when they contain water, but do not use them when they are dry. Use of these wetlands by reptile and mammal species is expected to be similar to that of the surrounding agricultural fields.

Ponds

Vegetation

There is a pond in the north-central part of the site, with an area of approximately 2.3 acres at full capacity, and a second pond that barely extends into the southwestern corner of the site. Both ponds

were created as water features for the golf course that was present on this site from the late 1960s to early 1980s. The pond in the north-central part of the site is several feet deep, and contains no emergent vegetation around its edges. Along the margins of the pond, ruderal species such as bristly ox-tongue, rabbitsfoot grass, ripgut brome, and hyssop loosestrife occur. Only the upper edges of the bank of the southwestern pond extend onto the site; thus, except when this pond is completely full, the habitat in the on-site portion of the pond is also dominated by ruderal terrestrial or wetland herbaceous plants.

Wildlife

Pacific treefrogs, bullfrogs, and western toads breed in these ponds. A pregnant female California tiger salamander was observed in the main pond in the center of the project site on 9 January 1998, and a single tiger salamander larva was observed in this pond on 4 April 1998. Tiger salamanders have not been confirmed breeding in the southwestern pond, but adults were observed in and around this pond in January and February 2000, and it provides potential breeding habitat for this species. However, both ponds are perennial, and contain numerous non-native aquatic predators of the California tiger salamander and other amphibians; these predators include bullfrogs, green sunfish, mosquitofish, and crayfish. Perhaps for this reason, most surveys of the project site and vicinity have failed to detect tiger salamanders.

Waterbirds regularly using these ponds include small numbers of Pied-billed Grebes, American Coots, Ring-necked Ducks, Buffleheads, Canvasbacks, and Snowy Egrets. Mallards may nest in surrounding ruderal grassland and bring their young to this pond, though other waterbirds are not expected to nest here. Mammals commonly found on the edges of such ponds include raccoon and red foxes, and reptiles such as garter snakes may occur here as well.

Ruderal Grassland

Vegetation

Approximately 1.7 acres of disturbed, ruderal grassland habitat occurs along the boundary of the main pond, on an island within this pond, along Bailey Avenue, and along portions of the agricultural road. Poison hemlock, black mustard, bristly ox-tongue, and ripgut brome form thickets adjacent to Bailey Avenue, most likely a result of disturbance related to road construction and on-going disturbance from road use. Two small red willows are present in the ruderal grassland habitat around the main pond, and the island within this pond is dominated by coyote brush, with one small Fremont cottonwood.

Wildlife

Red-winged Blackbirds and Song Sparrows nest in the ruderal grassland around the main pond, and Mallards may nest here as well. However, due to the disturbance of this habitat, and the surrounding agricultural habitat, few bird species nest here. Golden-crowned Sparrows, White-crowned Sparrows, House Finches, and Mourning Doves forage in these ruderal habitats, as do western fence lizards, gopher snakes, and other reptiles. Mammals that likely occur here include house mice, desert cottontails, black-tailed hares, and California ground squirrels.

Developed

Vegetation

Approximately 1.3 acres of developed habitat occur north of the project site, represented by Bailey Avenue. The road is paved with asphalt and has a compacted, gravel/sand shoulder immediately adjacent to the pavement both north and south of the road. Stunted, ruderal grassland species such as pineapple weed, rip-gut brome, and black mustard inhabit small patches of the compacted gravel fill shoulder.

Wildlife

Although wildlife species may disperse across, or occasionally forage at the shoulder of Bailey Avenue, wildlife use of this area is expected to be limited due to the lack of cover and traffic disturbance.

3.8.1.2 *Special-Status Species*

Special status species include plants or animals that are listed as threatened or endangered under the federal and/or California Endangered Species Acts (CESA), species identified by the California Department of Fish and Game (CDFG) as a California Species of Special Concern, as well as plants identified by the California Native Plant Society[13] as rare, threatened, or endangered. Special status plant species are not expected to occur on or adjacent to the project site, because of the degraded nature of habitat on the site, the lack of associated native species or potential habitat, and the absence of specific microhabitat variables such as soil type, elevation, or hydrology.

There are a few special-status animal species that may occur on the property as uncommon to rare visitors or may forage on the site in low numbers while breeding in adjacent areas. None of these species are expected to breed on the project site. These species include the American Peregrine Falcon, Merlin, Prairie Falcon, Golden Eagle, Sharp-shinned Hawk, Northern Harrier, White-tailed Kite, Cooper's Hawk, Ferruginous Hawk, Long-billed Curlew, Tricolored Blackbird, California Yellow Warbler, California Horned Lark, Vaux's Swift, ringtail, American badger, Townsend's big-eared bat, and pallid bat.

Special-status animal species with the potential to breed on the project site, or to use the site regularly, include the California tiger salamander, Burrowing Owl, and Loggerhead Shrike. These species, as well as the western pond turtle, are discussed below. More detailed discussion is provided below for these species.

California Red-legged Frog

The California Red-legged Frog is listed under the federal Endangered Species Act as a Threatened and the California Department of Fish and Game as a Species of Special Concern. The consistently negative survey results on and in the vicinity of the project site, as well as the complete absence of CNDDB-mapped records from the vicinity, indicate that the California red-legged frog has been extirpated from the area. Known populations are too far from the site to readily colonize it.

[13] The California Native Plant Society (CNPS) is a non-profit organization that maintains lists and a database of rare and endangered plant species in California. Plants in the CNPS "Inventory of Rare and Endangered Plants of California" are considered "Special Plants" by the CDFG Natural Diversity Database Program.

Furthermore, bullfrogs, fish, and general lack of emergent vegetation substantially decrease the quality of the ponds on and near the site for red-legged frogs. The disturbed nature of the upland habitat near the ponds, which is continually being disced and planted, also decreases habitat quality for frogs. Collectively, these factors indicate that the California red-legged frog is not present on the project site.

California Tiger Salamander

The California tiger salamander is listed under the federal Endangered Species Act as a Candidate species and the California Department of Fish and Game as a Species of Special Concern. The extensive, long-term discing of the property for agricultural purposes has reduced the extent of small mammal burrows and aestivation habitat for salamanders, and has isolated the on-site ponds from breeding ponds to the west. Few suitable burrows are present on the site, and these occur primarily immediately adjacent to the ponds and in the ruderal habitat. The lack of cover and aestivation habitat in the disced areas surrounding the pond on the project site would greatly reduce the likelihood of dispersing adult salamanders finding the on-site ponds to breed, and greatly increase the mortality risk to adults and metamorphosed larvae leaving the ponds to find aestivation habitat. In addition, any California tiger salamanders that attempt to breed in these ponds would likely have low reproductive success due to the abundance introduced predators in the ponds, including bullfrogs, fish, and crayfish. Nevertheless, the potential still exists for California tiger salamanders to disperse onto the project site from the neighboring populations to the west, and attempt to breed there. It is also possible that tiger salamanders could aestivate on less disturbed lands to the north of the site (north of Bailey Avenue) and cross the cultivated fields to reach the main on-site pond. Given the low quality of the on-site habitat, it is unlikely that a population could persist on the site without immigrants from a more robust population, so the project site is likely a population decrease for California tiger salamanders, meaning that mortality exceeds reproduction on average and the presence of the species can only be maintained by immigration from a larger source population.

Western Pond Turtle

The western pond turtle is listed under the California Department of Fish and Game as a Species of Special Concern. The ponds on the project site are presumably suitable for western pond turtles, however, this species does not appear to occupy the site. The species has never been observed on the site despite numerous herpetological surveys, and multiple site visits during reconnaissance-level surveys completed for the preparation of this report failed to detect the species. While it is possible that individuals could disperse onto the site from time to time, there does not appear to be a regular, or breeding, population present on the project site.

Burrowing Owl

The Burrowing Owl is listed under the California Department of Fish and Game as a Species of Special Concern. Due to frequent discing and cultivation on the project site, few suitable ground squirrel burrows are present on the site. Although the site provides suitable foraging conditions, if owls are breeding or wintering nearby, there is a very low probability that owls would take up residence on the project site. No Burrowing owls have been observed on the site or adjacent properties.

Loggerhead Shrike

The Loggerhead Shrike is listed under the California Department of Fish and Game as a Species of Special Concern. Loggerhead Shrikes have been observed in the immediate general vicinity of the project site, and they likely nest on the IBM property north of the site. However, nesting habitat is of low quality on the project site due to the lack of potential nest sites. Loggerhead Shrikes likely forage on the site, but there is a low probability that they nest there.

3.8.1.3 *Regulated Habitats*

The project site was included in a wetland delineation that was completed for the larger Sobrato property in the winter of 2006. The USACE (United States Army Corps of Engineers) visited the site in November 2006, and concurred with the delineation; a jurisdictional determination is pending. Approximately 5.5 acres of jurisdictional waters occur within the project area. One large pond and its drainage ditch, as well as the corner of a second pond that barely encroaches onto the southwestern part of the site, are considered "other waters"; in addition, several jurisdictional seasonal wetlands occur within the project site. These areas are mapped as "Pond" and "Seasonal Wetland" habitats on Figure 13. The remaining area of the project site does not meet the regulatory definition of jurisdictional waters.

3.8.1.4 *Trees*

There are few trees on the site which include a valley oak (almost dead), eucalyptus, and an unknown tree species (no leaves were present during the site visit); a few other small trees (e.g., willows and a Fremont cottonwood) are present near the main pond as well.

3.8.2 Biological Resources Impacts

3.8.2.1 *Thresholds of Significance*

For the purposes of this project, a biological resources impact is considered significant if the project would:

- 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 CDFG or USFWS; or
- 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 CDFG or USFWS; or
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or
- 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; or
- conflict with any local ordinances protecting biological resources, such as a tree preservation policy or ordinance.

3.8.2.2 *Impacts*

Direct Loss of Agricultural and Ruderal Grassland Habitat

Implementation of the project will result in the conversion of agricultural and ruderal grassland habitat (approximately 47.8 acres) to hardscape and landscaping comprising the project site (refer to Figure 14). The habitats and associated vegetation currently occupying the project site are common to abundant between in the San Francisco Bay region. In addition, the floristic composition of these habitats is characterized by non-native and often invasive species that offer limited value for wildlife. Due to the disturbed nature of these habitats, they provide low-quality habitat for most wildlife species. Therefore, the loss of these habitats due to project development would result in a less than significant impact.

Due to the small size of most of the trees within the agricultural and ruderal habitats on the site, and the mostly-dead nature of the one tree (a valley oak) on the site that is relatively large, wildlife habitat value of these trees is relatively low. Therefore, loss of these trees is also a less than significant impact. **[Less Than Significant Impact]**

Impacts to Habitat for Certain Special-Status Animal Species

Several special-status wildlife species may occur on the project site as occasional visitors, migrants, or transients. These include the American Peregrine Falcon, Merlin, Prairie Falcon, Golden Eagle, Sharp-shinned Hawk, Ferruginous Hawk, Long-billed Curlew, Tricolored Blackbird, California Yellow Warbler, California Horned Lark, Vaux's Swift, American badger, Townsend's big-eared bat, and pallid bat. The project will have no effect on the breeding success of any of these species, although it may result in a small reduction of foraging and/or roosting habitat available to them regionally. Due to the abundance of similar habitats regionally, however, the project is expected to have a less than significant impact on these species that do not breed on the site.

Several special-status bird species could potentially breed on or adjacent to the site (i.e., within 250 feet). Species that may breed in the large trees located within 250 ft of the site include the White-tailed Kite and Cooper's Hawk, and there is a possibility that Loggerhead Shrikes may breed either on or adjacent to the site. Due to the territorial nature of these species, no more than one pair of each could breed in the immediate site vicinity, if they breed there at all. Because the habitat on the site is not of high quality for any of these species, and represents a small fraction of the available breeding habitat for these species in the region, project development would not substantially affect regional populations of these species. Although loss of active nests for the bird species would be in violation of federal and/or state laws, impacts to these species' habitat would not be considered a significant environmental impact under CEQA due to the proportionally small effect such an impact would have on regional populations. **[Less Than Significant Impact]**

Impacts to Wildlife Corridors

At the northern end of the Coyote Valley, the Santa Teresa Hills and Tulare Hill extend eastward to Coyote Creek, so that only the narrow Coyote Creek/Highway 101 corridor separates the foothills of the Santa Cruz Mountains to the west and the foothills of the Diablo Range (in the form of Coyote Ridge) to the east. As a result, this area is likely important for dispersal between the two ranges by wildlife that are less likely to cross the broader, more heavily disturbed agricultural and developed areas on the Coyote Valley floor. Such wildlife species include American badgers, bobcats,

mountain lions, and coyotes. The project site is located adjacent to hills to the west and north that serve as important habitat for these species. However, being on the valley floor and being surrounded to the east and south by extensive agricultural lands, the project site is not located in an area that is expected to be used heavily by animals dispersing between the Santa Cruz and Diablo mountain ranges. The project site provides no distinctive or particularly valuable habitats that would be used (e.g., for foraging or cover) by such dispersing individuals.

Development of the project site will have local effects on the dispersal and movement of some wildlife species, particularly less mobile species such as California tiger salamanders. However, tiger salamanders are not known to breed on the valley floor immediately east of the project site, and it is extremely unlikely that salamanders could ever disperse naturally from areas of known occurrence on and west of the project site across Monterey Road, Coyote Creek, and Highway 101 to potential habitat east of the valley. Therefore, the project is not expected to disrupt any anticipated trans-valley dispersal by California tiger salamanders.

The project is not expected to result in significant impacts to important wildlife corridors or to severely constrain important regional movements by any particular species. **[Less Than Significant Impact]**

Consistency with the Developing Santa Clara Valley HCP/NCCP

The proposed project will result in impacts to wildlife species, and habitat for some species, that are proposed for coverage under the developing Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP). Such species include the California tiger salamander and species that may occur on the site only occasionally, such as the Golden Eagle, Burrowing Owl, and Tricolored Blackbird. The project does not conflict with the conservation strategy for this area that is being developed by the Santa Clara Valley HCP/NCCP.

Impacts to Ponds and Seasonal Wetlands Due to Construction

As previously described, ponds and seasonal wetlands that provide wildlife habitat and are considered jurisdictional wetlands and other waters of the U.S. occur on the project site. Due to the ecological value of these habitats, and the state's "no net loss" policy for jurisdictional waters and the standards of potential significance provided in CEQA Guidelines, direct impacts to wetland habitats are considered significant. Two types of impacts to wetlands and ponds may occur as a result of the project: (1) direct loss of Waters of the U.S. due to construction of project elements within Waters of the U.S., or (2) loss of Waters of the U.S. due to encroachment during construction. Project development will not cause direct loss of the ponds on the site, as these ponds will be avoided entirely during construction. Although a portion of a building, and two footbridges, will be constructed over the main pond on the site, no fill or structures will be placed within the pond for the construction of these features, and the minimal shading of the pond that will occur due to the presence of these features is not expected to significantly impair the pond's functions and values. However, the project will result in the loss of seasonal wetlands (refer to Figure 14).

Impact BIO-1: The proposed project will result in a significant impact to seasonal wetlands. **[Significant Impact]**

Impacts to California Tiger Salamanders

California tiger salamanders have been documented in both of the on-site ponds, and breeding in the main pond was indicated by the presence of a single larva in 1998. The overall habitat quality for California tiger salamanders on the site is low for a variety of reasons. These include the abundance of non-native predators in the pond, the scarcity of aestivation habitat due to the lack of rodent burrows in the disced upland, and the increased risk of dehydration to salamanders dispersing through the agricultural fields. Perhaps as a result of these factors, survey results indicate that the size of the on-site California tiger salamander population is small, and that perhaps the species only occurs (or breeds) on the site sporadically. The overall low quality of the habitat on the site suggests that the on-site ponds may be a population decrease for the species, meaning that mortality exceeds reproduction on average and the presence of the species can only be maintained by immigration from a larger source population. There is no opportunity for the on-site ponds to serve as stepping stones for dispersal of tiger salamanders farther east, because no suitable California tiger salamander habitat exists to the east of the project site before reaching Highway 101. For all of these reasons, the ponds and upland habitats on the project site are not expected to be important to the maintenance of regional populations of this species.

Nevertheless, it is possible that tiger salamanders aestivating in less disturbed areas north of Bailey Avenue or west of the project site may attempt to breed in the on-site ponds, and small numbers of individuals may use the few mammal burrows present on the site as upland refugia. Therefore, the species may be present on the site.

The ponds themselves will not be directly impacted by the project; no fill or structures will be placed in either pond, and the drainage ditch along the southern edge of the site will be aligned so as to avoid the southwestern pond entirely. Because the southwestern pond appears to derive most of its hydrology from groundwater, or from surface flow from the west/northwest, project activities are not expected to significantly affect the hydrology of this pond.

The construction of buildings, parking areas, and other features that either serve as physical barriers to tiger salamander dispersal or are inhospitable to the species will effectively isolate the main pond from the known populations in the grassland habitat to the west of the site. It is expected that any salamander dispersing from the west (where regular occurrence is expected), or from more suitable aestivation habitat to the north, toward the project site would be impeded by the buildings or other features of the project, and not reach the on-site pond. Likewise, if any salamanders were in the pond at the time of project construction and then tried to disperse offsite to aestivation habitat, they would be impeded by the buildings as well. The net result is a loss of the pond on the site as breeding habitat for the regional California tiger salamander population.

Though of low quality to tiger salamanders, the upland portions of the project site represent potential dispersal habitat, and a small amount of potential aestivation habitat (i.e., ruderal habitat with mammal burrows) will be lost as well. In addition, there is some potential for injury or mortality of individual salamanders during construction, and ongoing injury or mortality due to traffic on internal roadways and parking areas following project completion.

As mentioned previously, it is possible that the ponds on the project site represent population sinks for the California tiger salamander, and that preventing salamanders from attempting to breed in these ponds may thus benefit the species by forcing adult salamanders to seek out more suitable breeding locations. However, intensive study would be required to document that this is the case,

and in the absence of such a study, we assume that impacts to the California tiger salamander due to the proposed project will have an effect, albeit a minor one, on regional populations of this species. Due to the regional rarity of the California tiger salamander, and the threats to this species' populations from development in the region, even such a minor effect would be considered significant under CEQA. In addition, federal Endangered Species Act consultation with the USFWS would be necessary to obtain incidental take approval since take of this species may occur.

Impact BIO-2: The proposed project could result in a significant impact to California tiger salamanders. **[Significant Impact]**

Potential Impacts to Burrowing Owls

Burrowing Owls are not known to nest on the project site, and focused surveys conducted in the past have not detected the species using the site at all. Due to the marginal quality of habitat on-site for the Burrowing Owl, there is a very low probability that the species breeds on-site, and development of this site is not expected to result in a significant impact to this species' habitat. However, the possibility of future use of the site cannot be ruled out. If owls are using burrows on or immediately adjacent to the site when Project construction commences, construction activities could result in the mortality or injury of individual owls in burrows, or cause the abandonment of active nests. Due to the small size of the Burrowing Owl population in the region, such loss of individuals or reproductive effort would be a significant impact.

Impact BIO-3: The proposed project could result in a significant impact to Burrowing Owls. **[Significant Impact]**

Construction Impacts to Nesting Raptors

Nesting birds in trees on-site could be impacted during construction. Nesting birds, including raptors, are protected by the California Department of Fish and Game Code 3503, which reads, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or could otherwise lead to nest abandonment. Nest abandonment and/or loss of reproductive effort caused by disturbance are considered "take" by the CDFG, and therefore would constitute a significant impact.

Impact BIO-4: Construction activities such as tree removal and site grading, could disturb a nesting raptor on-site or immediately adjacent to the site. **[Significant Impact]**

3.8.3 Mitigation Measures

3.8.3.1 *Pond and Seasonal Wetland Mitigation Measures*

MM-BIO-1.1: For any construction adjacent to wetlands or ponds that are to be preserved, measures shall be implemented to prevent any incursion into wetland areas by equipment, materials, or construction workers. Construction fencing shall be installed prior to any construction activities. The base of the fence shall be lined with silt fencing or similar material at least 24 inches in height that is buried six inches in the ground to prevent incursion under the fence. This will prevent any material from washing or

falling into ponds or portions of wetlands (e.g., off-site) that are not intended to be impacted by this project.

MM-BIO-1.2: Seasonal wetland habitat that will be permanently impacted by project implementation shall be replaced at a level that will ensure no net loss of habitat functions and values. Wetland habitat shall be mitigated at a suitable off-site location at a replacement ratio of at least 1.5:1 (compensation:impact). Because the wetlands on-site are disced during the dry season, and planted, these to have a lower value to wildlife than undisturbed wetlands, and that a mitigation ratio of 1.5:1 is considered by the biologist to be adequate to compensate for project impacts.

MM-BIO-1.3: A Mitigation and Monitoring Plan for the replacement of seasonal wetland will be prepared by a qualified restoration ecologist and will provide the following:

1. Summary of habitat impacts and proposed mitigation ratios
2. Goal of the restoration to achieve no net loss of habitat functions and values
3. Location of mitigation site(s) and description of existing site conditions
4. Mitigation design:
   - existing and proposed site hydrology
   - grading plan if appropriate, including bank stabilization or other site stabilization features
   - soil amendments and other site preparation elements as appropriate
   - planting plan
   - irrigation and maintenance plan
   - remedial measures/adaptive management, etc.
5. Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.)
6. Contingency plan for mitigation elements that do not meet performance or final success criteria

Permits would be required from the regulatory agencies prior to project construction or mitigation installation that will impact jurisdictional wetlands, drainages, streams etc. These agencies would typically include the USACE and RWQCB, and the CDFG if it exerts jurisdiction over any on-site habitats.

3.8.3.2 *California Tiger Salamanders Mitigation Measures*

MM-BIO-2.1: A worker education program shall take place before the commencement of construction, and a qualified biologist shall explain to construction workers how best to avoid the accidental take of California tiger salamanders. The approved biologist shall complete a training session that would be scheduled as a mandatory informational field meeting for contractors and all construction personnel. The field meeting shall include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Emphasis will be placed on the importance of the habitat and life stage requirements within the context of project avoidance and minimization measures. Handouts, illustrations, photographs, and project mapping showing areas where minimization and avoidance measures are being implemented shall be included as part of this education program. The program will increase the awareness of the contractors and construction workers about existing

federal and state laws regarding endangered species as well as increase their compliance with conditions and requirements of resource agencies.

MM-BIO-2.2: Prior to commencement of project work, exclusion fencing shall be installed around the limits of construction to prevent tiger salamanders in off-site areas from entering the work area. No work shall be performed outside the exclusion fencing. Exclusion fencing shall consist of smooth-faced fencing material (e.g., silt fence) buried in the ground a minimum of six (6) inches and held in place by rigid stakes and/or by attachment to another type of fencing (e.g., chain-link) to ensure that the fencing remains upright. The fencing shall be a minimum of 12 inches tall following installation.

During construction, dedicated construction personnel will conduct daily checks of the exclusion fencing to ensure that it is functioning correctly (e.g., without any gaps through which California tiger salamanders might enter the work area), and to maintain the fencing as needed.

MM-BIO-2.3: Prior to the commencement of work, a qualified biologist shall complete a pre-construction survey of the main on-site pond for California tiger salamanders, including adults and larvae. This survey shall include seining or other measures adequate to detect any tiger salamanders present within the pond. Individuals captured shall be translocated to the southwestern pond (which will not be impacted directly, or surrounded by development, as part of this Project) with the approval of the USFWS.

MM-BIO-2.4: Prior to the start of work each day, dedicated construction personnel will inspect trenches and pits that were left open overnight for California tiger salamander. If a salamander of any kind is encountered during project construction, the following protocol will be implemented:

- All work that could result in direct injury, disturbance, or harassment of the individual animal must immediately cease;
- The foreman will be immediately notified;
- The foreman will immediately notify a qualified biologist, who in turn will immediately notify USFWS and CDFG; and
- If approved by the USFWS and CDFG, the qualified biologist will remove the individual to a safe location nearby.

MM-BIO-2.5: The project proponent shall mitigate for the loss of the main on-site pond (as a result of isolation by development) as a potential California tiger salamander breeding pond by creating or significantly enhancing a breeding pond at an off-site location, at a 1:1 acreage ratio. Significant enhancement of an off-site pond would include removal of non-native predators that prevent an otherwise suitable pond from supporting successful breeding by tiger salamanders; reconstruction of a pond that formerly existed (e.g., one that may have been drained due to failure of a dam); or excavating an otherwise suitable breeding pond that has filled with sediment, and that consequently does not pond long enough for successful breeding by tiger salamanders. The 1:1 acreage ratio requirement may be satisfied by the creation of a single pond, or multiple smaller ponds.

The project proponent shall mitigate for any permanent loss of California tiger salamander upland dispersal or aestivation habitat at a 2:1 (compensation:impact) ratio through permanent preservation of the appropriate acreage of aestivation habitat within 2,200 feet of a known breeding location for the species off-site. Alternatively, this ratio may be reduced (but will not be less than 1:1) if creation or significant enhancement of breeding ponds beyond the 1:1 mitigation requirement mentioned above is performed; the degree to which the ratio may be reduced shall be determined by a qualified herpetologist in consultation with the US Fish and Wildlife Service, and will be based on the herpetologist's opinion of the value of the additional aquatic breeding habitat provided.

All off-site mitigation, including the design of new breeding ponds, measures to enhance existing ponds, and identification of appropriate upland habitat shall be supervised by a qualified herpetologist.

3.8.3.2 *Burrowing Owls Mitigation Measures*

MM-BIO-3.1: Pre-construction surveys for Burrowing Owls shall be completed in potential habitat in conformance with CDFG protocols, no more than 30 days prior to the start of construction. If no Burrowing Owls are located during these surveys, no additional action would be warranted. However, if Burrowing Owls are located on or immediately adjacent to the site the following mitigation measures shall be implemented.

MM-BIO-3.2: If Burrowing Owls are present during the nonbreeding season (generally 1 September to 31 January), a 150-foot (ft) buffer zone shall be maintained around the occupied burrow(s). During the breeding season (generally 1 February to 31 August), a 250-ft buffer, within which no new activity will be permissible, shall be maintained between project activities and occupied burrows. Owls present on site after 1 February will be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area shall remain in effect until 31 August, or based upon monitoring evidence, until the young owls are foraging independently.

MM-BIO-3.3: If construction will directly impact occupied burrows, eviction of owls shall occur outside the nesting season. No burrowing owls shall be evicted from burrows during the nesting season (1 February through 31 August) unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season).

3.8.3.4 *Nesting Raptors Mitigation Measures*

MM-BIO-4.1: Avoid nesting season construction. Construction shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors, in the South San Francisco Bay area extends from February through August.

MM-BIO-4.2: If it is not possible to schedule construction between 1 September and 31 January, then pre-construction surveys for nesting birds shall be completed by a qualified

ornithologist to ensure that no nests will be disturbed during project implementation. This survey should be completed no more than 14 days prior to the initiation of demolition/construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., grasslands, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest, typically 250 feet, to ensure that no nests of species protected by the MBTA or State Code will be disturbed during project implementation.

MM-BIO-4.3: If vegetation is to be removed by the project and all necessary approvals have been obtained, potential nesting substrate (e.g., bushes, trees, grass, burrows) that will be removed by the project shall be removed before the start of the nesting season (January) to help preclude nesting.

3.8.4 Conclusion

Implementation of the identified mitigation measures and avoidance measures would avoid possible impacts to biological resources. **[Less Than Significant Impact with Mitigation]**

3.9 CULTURAL RESOURCES

The following discussion is based upon an archaeological investigation titled, "Archaeological Mechanical Presence/Absence Testing Report" prepared by *Holman & Associates* in May 2007. This archaeological investigation is being kept in administrative confidence since the archeological investigation discloses location of specific archaeological sites that could be vandalized or destroyed if their locations were made known here and therefore the investigation is not included in this EIR.

3.9.1 Existing Setting

The project site is located in an area of moderate to high archaeological sensitivity. The project site would have provided a favorable environment during the prehistoric period with riparian, bay, and inland resources available to the aboriginal population. Numerous small and large size sites are present within several miles of the project site.

Based upon past studies in the project area, it is possible that there could be buried prehistoric archaeological materials on the project site. A program of mechanical subsurface presence/absence testing for buried archaeological materials was completed on the site. A total of 36 trenches were cut at regular intervals throughout the project area in March 2007. No evidence of prehistoric archaeological occupation and or used of the project area was discovered at any point during the testing.

There are no known historic resources on or adjacent to the project site.

3.9.2 Cultural Resources Impacts

3.9.2.1 *Thresholds of Significance*

For this project, the cultural resources impacts are considered significant if it exceeds one or more of the following thresholds of significance:

- the project will cause of substantial adverse change in the significance of a historic resource as defined in CEQA Guidelines Section 15064.5; or
- the project will cause a substantial adverse change in the significance of an archaeological resources as defined in CEQA Guidelines Section 15064.5; or
- the project will directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- the project will disturb any human remains, including those interred outside of formal cemeteries.

3.9.2.2 *Cultural Resources Impacts*

No evidence of prehistoric archaeological occupation or use of the project site was discovered during the backhoe testing. Only one trench yielded a small amount of shattered chert which could have been cultural in origin. None of the more obvious signs of cultural activities were noted: the soils did not contain evidence of fires, ecofactural materials such as animals or bird bone or fresh water shellfish remains, or artifacts of stone, bone or shellfish.

The proposed construction of the college campus is not anticipated to affect buried cultural resources. Because subsurface testing yielded an absence of cultural materials, no further mechanical subsurface

testing or archaeological monitoring of future grading and trenching operations on the project site by the archeologist that completed the testing (*Holman & Associates*). **[Less Than Significant Impact]**

Utility Trenching in Bailey Avenue

During the trenching for the utility extensions in Bailey Avenue, there is a potential to encounter subsurface cultural material. This could result in impacts to cultural resources.

Impact CUL-1: Utility trenching could result in significant cultural resources impacts. **[Significant Impact]**

3.9.3 Mitigation Measures

3.9.3.1 *On-site Avoidance Measures*

Although it is unlikely that buried cultural materials would be encountered on the project site, standard conditions for excavation activities would be applied to the project as described below.

AM CUL-1.1: In accordance with CEQA Guidelines Section 15064.5 (f), if any previously unknown historic or prehistoric resources are discovered during grading, trenching, or other on-site excavation, earthwork within 100 feet of these resources shall be stopped until a professional archaeologist certified by the Register of Professional Archaeologists (RPA) has an opportunity to evaluate the significance of the find and suggest appropriate mitigation as determined necessary to protect the resource. In the event that Native American human remains or funerary objects are discovered, the provisions of the California Health and Safety Code shall be followed. Section 7050.5(b) of the California Health and Safety Code states:

- 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 the county in which the human remains are discovered has determined, in accordance with Chapter 10 of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

- The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission within twenty-four hours. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." A combination of preconstruction worker training and intermittent construction monitoring by a

qualified archaeologist will serve to achieve compliance with this requirement for protection of human remains. Worker training typically instructs workers as to the potential for discovery of cultural or human remains, and both the need for proper and timely reporting of such find, and the consequences of failure thereof. Once the find has been identified, the archaeologist will make the necessary places for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be significant according to CEQA.

If unknown buried resources and/or Native American human remains are found on-site, compliance with applicable laws and policies will result in a less than significant impact.

3.9.3.2 *Utility Trenching Mitigation Measures*

MM CUL-1: The project proposes to include the following measures to reduce cultural resources impacts to a less than significant level.

- The project shall avoid significant impacts and disturbance of prehistoric cultural materials during utility trenching operations by monitoring the utility installation. This operation shall be undertaken under the direction and supervision of an professional archaeological monitor certified by the RPA, with the authority to direct and halt earthmoving activities as deemed necessary by the monitor, if and when cultural soils are encountered. It is expected that earthmoving equipment with a blade, or other scraping mechanism will be employed. In the event that buried cultural materials are discovered, the provisions of the California Health and Safety Code listed below shall be followed.

3.9.4 Conclusion

Implementation of the above mitigation measures would reduce significant cultural resources impacts to a less than significant impact. **[Less Than Significant Impact with Mitigation]**

3.10 VISUAL AND AESTHETIC RESOURCES

3.10.1 Existing Setting

The views and vistas of and from the project site are predominately agricultural and rural. Located on the floor of northern Coyote Valley, the site offers views of cultivated fields in three directions constituting the greatest component of the visual landscape. The proposed project site currently consists of active agricultural lands (row crops), and a water feature with a small island (refer to Photos 1 and 2). The water feature was originally part of a former private golf course that was actively used in the late 1960s to early 1980s. There are a few trees along the northwestern boundary and along the pond. No structures are on the project site or adjacent to it

Bailey Avenue forms the north or northwest boundary of the project site. Bailey Avenue transitions from a four-lane roadway to two-lane roadway adjacent to the project site. Santa Clara County has designated Bailey Avenue as a scenic roadway. Looking cross Bailey Avenue to the north of the site is the only view of substantial urban development in the area. Located on the north side of Bailey Avenue is the IBM Santa Teresa industrial campus, consisting of a cluster of modern four-story buildings clad in metallic exterior finish surrounded by surface parking lots, several hundred feet from the roadway behind a generous vegetated setback (refer to Figures 3 and 4). Located north and west of the IBM campus development are the Santa Teresa foothills. The only other building in the vicinity of the project is the one-story AT&T building, also located on the north side of Bailey Avenue about a quarter mile east of the IBM campus buildings.

West, east and south of the project site are privately owned ranchlands and cultivated fields with a few barns and ancillary structures. The Santa Teresa foothills are located to the west of the project site. East of the project site the outline of Fisher Creek can be identified by band of riparian trees and emergent vegetation. On the east side of Fisher Creek, the scattered oak trees on the grassy slopes of Spreckles Hill rise on the south side of Bailey Avenue forming a very recognizable rounded knoll. Several hundred feet east of Spreckles Hill, Santa Teresa Boulevard traverses the flat agricultural lands of Coyote Valley on a northwest southeast axis and constitutes. This roadway is designated a County Scenic Roadway. South of the signalized intersection with Bailey Avenue, Santa Teresa Boulevard is a two lane rural roadway which north of this intersection is a four-lane roadway.

3.10.2 Visual and Aesthetic Resources Impacts

3.10.2.1 *Thresholds of Significance*

For this project, a visual resources impact is considered significant if the project would:

- the project will have a substantial effect on a scenic vista;
- the project will substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; or
- the project will substantially degrade the existing visual character or quality of the site and its surroundings; or
- the project will create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.10.2.2 *Impact Discussion*

The assessment of a project's visual impact is dependent upon an evaluation of the character and design of the proposed development and the degree to which the project is visually compatible with the surrounding area. The primary criteria that are considered in this assessment include: 1) the spatial relationship of the site to neighboring land uses; 2) the mass, scale and height of the proposed project and its visibility from the surrounding area; 3) the degree to which the project would visually contrast with the surrounding development in design and materials; and 4) whether the project is likely to result in visual impacts including glare, shadows, night lighting.

Alterations to Visual Character and Scenic Vistas From the Proposed Development

The proposed project will introduce large campus buildings (five story buildings), parking lots, athletic fields with bleachers, landscaping and a roadway onto a site that currently consists of cultivated fields and a pond. The general project vicinity appears rural, except for the IBM industrial office park across Bailey Avenue from the project site. The 601,792 square feet of proposed building development will create a substantial change in the visual character of the site. The overall height and mass of the five-story College campus buildings will be similar to the IBM campus building on the north side of Bailey Avenue, although actual height could be slightly taller. The buildings will partially block the view of the hillside areas, particularly views from Bailey Avenue and northbound Santa Teresa Boulevard. As mentioned previously, Bailey Avenue and Santa Teresa Boulevard are designated as rural scenic corridors. In addition, the college campus buildings will also visible from US Highway 101, appearing generally similar in size and scale to the IBM campus buildings to travelers on this freeway.

The project will alter views of natural vistas, primarily from the valley floor. It is expected that the development will be visible from elsewhere on the valley floor, nearby hills, including Santa Teresa County Park and planned Bay Area Ridge Trail, and from vehicles on the surrounding roadway system. As landscaping matures and newly planted trees grow to their full size, the developed site's appearance will partially soften, particularly when seen from public streets. However, landscaping will not reduce the visual impact of introducing urban uses to a rural site.

Impact AES – 1: Development of the site will substantially alter the views of open fields and hillsides from rural scenic corridors and will constitute a significant change in the views of scenic resources. **[Significant Impact]**

Light and Glare

Given the rural nature of the area, the project will introduce a new nighttime light source into the area. Outdoor lighting, including low level pedestrian light fixtures and downward focused lights will be provided along walkways and in parking areas. The project also proposes stadium lighting for the baseball and football/soccer fields to allow night games and practices. The project proposes to avoid the excessive use of reflective and glare producing surfaces. The project would introduce new nighttime lighting in a rural area, but would incorporate design measures to limit lighting spillover and substantial glare from building materials. **[Less Than Significant Impact]**

3.10.3 Conclusion

The proposed project would obscure scenic views and alter scenic vistas, including views from designated rural scenic routes, Santa Teresa County Park, the local roadway system and planned trail corridors. The project would result in significant impacts to visual resources. **[Significant Unavoidable Impact]**

3.11 PUBLIC SERVICES

3.11.1 Existing Setting

3.11.1.1 *Fire Protection*

Fire protection for the project site is provided by the City of San José Fire Department (SJFD), and fire protection for the nearby Coyote Valley Urban Reserve and Coyote Greenbelt areas is provided by the Santa Clara County Fire Department (SCCFD).

San José Fire Department

The SJFD serves a population of approximately 920,000 and an incorporated area of 176 square miles. The SJFD responds to all fires, hazardous materials spills, and medical emergencies (including injury accidents) in the project area. The City's total response time goals are eight minutes for the first-due engine, 80 percent of the time, and ten minutes for the first-due ladder truck (or Urban Search and Rescue (USAR)) 80 percent of the time.[14] The second goal is expressed in terms of unit-hour utilization (UHU), which measures the percentage of time a given company is committed to a call. The four minute response is expected to be achieved 80 percent of the time.

The SJFD participates in a mutual aid program with neighboring jurisdictions. Through this program, should the SJFD need assistance above and beyond what is available within the City, one or more of the mutual aid agencies (SCCFD) would provide assistance.

The nearest fire station to the project site is station No. 27, located at 6027 San Ignacio Road, approximately 3.5 miles northwest of the project site. In the 2004-2005 fiscal year, this station responded to 1,351 calls including 968 medical, 113 fires, and 270 other emergencies.[15]

There are currently no fire stations within the immediate project area. One station planned to be located on the north side of Bailey Avenue, west of Santa Teresa Boulevard was approved as part of the Coyote Valley Research Park (CVRP). According to SJFD, current service delivery in the project area is provided at a rural level. The City's first-due engine company total response time goal of eight miniatures for 80 percent of responses, and the first-due truck/USAR total response time goal of ten minutes are not met for the North Coyote Valley area. Therefore, fire service to the project site does not currently meet SJFD performance goals.

Mutual aid is proposed by the cities of San José and the California Department of Forestry (CDF). The nearest SCCFD and CDF fire stations to the project site are El Toro Station located at 18300 Old Monterey Road in Morgan Hill and the CDF Morgan Hill Station located at 15670 Monterey Road.

3.11.1.2 *Police Protection*

San José Police Department

Police protection services for the project site are provided to the project site by the City of San José Police Department (SJPD). Officers patrolling the project area are dispatched from police headquarters, located at 201 West Mission Street. The SJPD presently consists of approximately

[14] San José Fire Department Strategic Plan (2000).
[15] City of San José. San José Fire Department. April 17, 2007. http://www.sjfd.org/.

1,374 sworn officers and operates 338 marked police cars.[16]

The SJPD has four patrol divisions (plus San José Airport), 16 patrol districts, 83 patrol beats and 357 patrol beat building block (BBB). The project site is located in the Southern Division, BBB 329 of the SJPD's service area. The City is planning to construct a new SJPD Substation in South San José on Great Oaks Boulevard. The SJPD has a response time goal of six minutes or less for 60 percent of all Priority 1 calls, and a goal of 11 minutes or less for 60 percent of all Priority 2 calls.

Santa Clara County Sheriff's Department

The Coyote Valley Urban Reserve and the Coyote Greenbelt are patrolled by the Santa Clara County Sheriff's Department, and dispatched from the from the Headquarters Division, located at 55 West Younger Avenue in San José. This office provides 24-hour uniformed law enforcement patrol services for all central and eastern Santa Clara County unincorporated areas.

3.11.1.3 *Parks and Recreation*

The City of San José Department of Parks, Recreation and Neighborhood Services operates an extensive system of parks and recreational activities throughout the City. On a City-wide basis, there are neighborhood parks, community gardens, regional parks, golf courses, and community centers. There are also senior centers, youth centers, and a network of trails and pathways. These facilities are supplemented by those of local schools and the County, as well as a number of trails on lands along creeks that are owned by the Santa Clara Valley Water District.

The project site is located within City Council District 2, which has 18 neighborhood parks and one regional park. According to the *Greenprint* (2000), a 20-year strategic plan for parks, community facilities and programs in San José, District 2 has 329 acres of neighborhood/community serving parkland, exceeding the City's parkland acreage goal of 3.5 acres per 1,000 population. The nearest park to the project site is Los Paseos Park, located at Avenida Grande and Via Vista, approximately 2.7 miles northwest of the project site. Nearby County parks include the Coyote Creek Parkway County Park, Calero County Park, and Fields Sports County Park.

3.11.2 Public Services Impacts

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

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

[16] Kihmm, Michael. San José Police Department. Personal Communication. March 9, 2007.

require an analysis of fiscal impacts.

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

3.11.2.1 *Thresholds of Significance*

For this project, the thresholds of significance for public service impacts are defined as follows:

- the project result in substantial adverse physical impacts associated with the provision of new physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives for any of the public service: fire protection, police protection, schools, parks, or other public facilities.

3.11.2.2 *Police and Fire Protection*

The proposed construction of a 55-acre community college campus that could serve 10,000 full time equivalent students would increase call for service. The proposed college includes standard community college campus security and, at a minimum the project would include State mandated fire design and maintenance criteria. The police and fire calls for services are estimated to be similar to those of the IBM campus located across Bailey Avenue to the north of the project. A new police substation, fire station or other facilities would not need to be constructed because any additional personnel would continue to be dispatched from existing fire stations, the police headquarters or future substations. Since the project does not require the construction new facilities it would not have a significant impact. **[Less Than Significant Impact]**

3.11.2.3 *Parks and Recreation*

While the proposed college campus has public open space and recreation amenities, future students and facility may also utilize local and regional parks and recreational facilities. The proposed project will, therefore, result in an incremental increase in park usage in the project area. This increase will not require the construction of new recreational facilities to serve the local population and will not result in the deterioration of existing or planned park facilities. The incremental increase in use of these facilities will not cause substantial physical deterioration of these facilities. As a result, the proposed project will not require the construction of new recreational facilities or the expansion of existing facilities. **[Less Than Significant Impact]**

3.11.4 Conclusion

The project will incrementally increase the demand for public services in the project area. The project would not, however, result in substantial adverse physical impacts associated with a need for new public safety, recreational or educational facilities in order to maintain acceptable levels of service. **[Less Than Significant Impact]**

3.12 WATER SUPPLY AND UTILITIES AND SERVICE SYSTEMS

This section is based, in part, on a Water Supply Evaluation that was prepared for the Coyote Valley Specific Plan DEIR. A copy of the assessment is provided in Appendix I of this EIR.

3.12.1 Existing Setting

The project site is not currently served by any utility systems.

Water Service

Water service providers in the project area included either the San José Municipal Water System or Great Oaks Water Company. There is one 18-inch San José Municipal Water System main in Bailey Avenue that terminates approximately 600 feet west of Santa Teresa Boulevard. There is one 16-inch Great Oaks Water Company main in Santa Teresa Boulevard.

Recycled water is available approximately two miles from the project site. The only area in the vicinity of the project site that is currently served by the South Bay Water Recycling program is the Metcalf Energy Center.

Sanitary Sewer

Sanitary sewer service is provided by the City of San José. There is an existing 10-inch sanitary line located in Bailey Avenue (north side of the street) that services the adjacent IBM campus facility.

Storm Water

There are no storm drainage facilities along the project site. Currently drainage sheet flows across the site toward an existing irrigation ditch that eventually drains to Fisher Creek.

Solid Waste

Commercial solid waste collection in San José is provided by a number of non-exclusive service providers and the waste may be disposed of at any of the five privately owned landfills in San Jose. Recycling services are available to most businesses from private recyclers.

Electricity and Natural Gas

The Pacific Gas and Electric Company (PG&E) supplies electricity and natural gas to the project area. There is a 21kv overhead facility on the south side of Bailey Avenue that extends to the project frontage. There is a natural gas main located in Santa Teresa Boulevard, extending form the north and terminating at Bailey Avenue.

3.12.2 Water Supply and Utilities and Service System Impacts

3.12.2.1 *Thresholds of Significance*

For this project, a significant impact would result if any of the following thresholds of significance for water supply and utilities and service system impacts are exceeded:

- the project would exceed wastewater treatment requirements of the applicable Regional Water Quality Board;
- the project would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- the project would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- the project would require water supplies in excess of available existing entitlements and resources;
- the project would result in a determination by the wastewater treatment provider which serves or may serve the project that the provider does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs;
- Fail to comply with federal, state, and local statutes and regulations related to solid waste.

3.12.2.2 *Water Supply and Utility Service Impacts*

All existing and proposed utility connections are shown in the Figure 15.

Water Service and Supply

Development of the proposed project would increase water demand as compared to existing conditions. It is estimated that the proposed project would result in an increase of water usage on the site. The estimated water usage for the proposed project is approximately 188,400 gallons per day.

Water Supply Assessment

Senate Bill 610 (2001), codified as Water Code Section 10910 et seq., requires that certain water supply information be prepared for projects that are the subject of an EIR. In accordance with State law (SB 610) and CEQA, all projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project must provide an analysis of whether there is adequate water supply available to serve the development.

Three Water Supply Assessments (WSA) and a Water Supply Evaluation (WSE) which summarized the WSAs, were completed for the Coyote Valley Specific Plan DEIR by the City of San José with assistance from Schaaf & Wheeler, Consulting Engineers. The three prospective waster retailers (San José Municipal Water, Great Oaks Water Company, and San José Water Company) all prepared WSAs for the CVSP project at buildout (approximately 2030). The City of San José used the information provided by the retailers and the SCVWD's Urban Water Management Plan to prepare the WSE. The WSE was accepted by the City of San José City Council on March 13, 2007. The

water demands of the entire Coyote Valley Sub-basin including the Greenbelt and the City of Morgan Hill's Sphere of Influence were all included in the analysis completed for the WSAs and the City of San José's WSE.

The CVSP DEIR assumed the project site would be developed with Campus Industrial and Industrial Park/Office uses. These uses would generate considerably more water than the proposed campus and therefore, the future water demand and water supply impacts of the campus were evaluated under the previously prepared WSAs and WSE.

Based upon the Water Supply Evaluation prepared for the Coyote Valley Specific Plan DEIR there would be adequate water supplies to serve the proposed project and an additional source of supply or system operation changes would not be necessary. **[Less Than Significant Impact]**

Water Service

Water service can be provided to the project site by the either San José Municipal Water System or Great Oaks Water Company. There is one 18-inch San José Municipal Water System main in Bailey Avenue that terminates approximately 600 feet west of Santa Teresa Boulevard. There is one 16-inch Great Oaks Water Company water line in Santa Teresa Boulevard. The project will be able to connect to one of these water providers in order to serve the site. As mentioned above, the project would use approximately 188,400 gallons per day[17]. There would be adequate water service to serve the proposed project. **[Less Than Significant Impact]**

A recycled water connection is not proposed as this time, however, the Campus Master Plan includes provisions (installation of piping on-site) for use of recycled water on landscaping and athletic fields in the future.

Sanitary Sewer

Sanitary sewer service is provided by the City of San José. There is an existing 10-inch sanitary line located in Bailey Avenue (north side of the street) that services the adjacent IBM facility. The proposed college campus would increase the demand for sanitary sewer services in comparison to existing conditions. The proposed project would generate approximately 160,140 gallons of sewage per day. It is possible that at the time of full buildout, a larger sanitary line may be connected to the 21-inch line in Santa Teresa Boulevard. Based upon the size of the existing line in Bailey Avenue and the limited discharge of the college, there would be adequate capacity to serve the proposed development.[18] The sewage generated from the proposed project would not exceed the capacity of the sewage treatment plant and is not anticipated to exceed the existing sanitary sewer capacity. During Phase I development, the project anticipates a connection to the existing 10-inch sanitary line in Bailey Avenue. **[Less Than Significant Impact]**

[17] ALFA Tech Cambridge Group, October 2007.
[18] Sewage generation is approximately 85 percent of water usage. Since the project is estimated to result in a water use increase of 188,400 gpd, the increased sewage generation from the project would be 160,140 gpd (188,400 x 0.85).

Storm Water

There are no storm drainage facilities along the project site. Currently drainage sheet flows across the site toward an existing irrigation ditch that drains easterly to Fisher Creek. As discussed in Section 3.7, the proposed project site will be graded so that it will drain to the southeast corner of the campus where a detention basin will be created to accommodate the increased surface runoff. The detention basin will be at grade with fill added to create surrounding berms. The detention basin includes an area of approximately five acres. The soccer field in the southeastern corner of the site would be within the detention basin. A perimeter swale or ditch will be constructed on the western and southern side of the site to convey the existing sheet flows from adjacent property to the west that currently flows across the site. A perimeter berm would be constructed of fill to prevent storm water from adjacent properties from flowing onto the campus. The detention basin will maintain existing condition peak flow and durations after development, based on the requirements of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) hydromodification management plan (HMP) procedures. **[Less Than Significant Impact]**

Solid Waste

The proposed college campus would generate solid waste that would to be disposed of at a local landfill by contracting with a solid waste hauler. Waste haulers would dispose of the solid waste at any of several local permitted landfills having available capacity including BFI Newby Island Sanitary Landfill, Guadalupe Landfill, Kirby Canyon Landfill, Zanker Road Landfill, and Zanker Material Processing Facility. At buildout, the college campus would represent a small fraction of the project area's generated waste. **[Less Than Significant Impact]**

Electricity and Natural Gas

The Pacific Gas and Electric Company (PG&E) supplies electricity and natural gas to the project area. There is a 21kv overhead facility on the south side of Bailey Avenue that extends to the project frontage. There is a natural gas main located in Santa Teresa Boulevard that terminates at Bailey Avenue. There is adequate capacity available from PG&E to serve the site. The project would require annual electricity usage of approximately 7,823,300 kWh/year and natural gas usage of 22,266,300 million cubic feet. For full-buildout a three-mile feeder will be required for electricity and a four-inch gas main will need to be installed from the intersection of Bailey Avenue and Santa Teresa Blvd intersection to the project site. **[Less Than Significant Impact]**

3.12.3 Conclusion

Implementation of the proposed project will result in an incremental increase in the use of water, and the need for wastewater treatment and solid waste disposal. The project, however, will not result in any utility or service facility exceeding current capacity. **[Less Than Significant Impact]**

3.13 ENERGY RESOURCES

This section was prepared pursuant to *CEQA Guidelines,* Section 15126.4(a)(1) and Appendix F of the Guidelines (Energy Conservation), which require that EIRs include a discussion of the potential energy impacts of proposed projects with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The information in this section is based largely on data and reports produced by the California Energy Commission and the Energy Information Administration of the US Department of Energy. The specific sources and citations are listed in *Section 8, References.*

3.13.1 Introduction

Energy consumption is analyzed in an EIR because of the environmental impacts associated with its production and usage. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emissions of pollutants during both the production and consumption phases.

Energy usage is typically quantified using the British Thermal Unit (Btu).[19] As points of reference, the approximate amount of energy contained in a gallon of gasoline, a cubic foot of natural gas, and a kilowatt hour (kWh) of electricity are 123,000 Btus, 1,000 Btus, and 3,400 Btus, respectively.

Energy conservation is embodied in many federal, state and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the EnergyStar program) and transportation (e.g., fuel efficiency standards). At the state level, Title 24 of the *California Administrative Code* sets forth energy standards for buildings, rebates/tax credits are provided for installation of renewable energy systems, and the *Flex Your Power* program promotes conservation in multiple areas.

3.13.2 Energy Resources Setting

Total energy usage in California was 8,130 trillion Btu in the year 2003 (the most recent year for which this specific data is available). Of California's total energy usage in 2003, the breakdown by sector was approximately 18 percent (1,469 trillion Btu) for residential uses, 18 percent (1,484 trillion Btu) for commercial uses, 24 percent (1,903 trillion Btu) for industrial, and 40 percent (3,275 trillion Btu) for transportation.[20] This energy was primarily supplied in the form of coal, natural gas, petroleum, nuclear electric power, and hydroelectric power.

Given the nature of the proposed community college campus, the remainder of this discussion will focus on the two most relevant sources of energy for the project: electricity, natural gas, and gasoline for vehicle trips.

3.13.2.1 *Electricity*

Energy consumption in California grew from 250,254 gigawatt hours (GWh) in 2001 to 270,927 GWh in 2004. In 2004, electricity was produced from power plants fueled by natural gas (41 percent), coal (21 percent), hydro (17 percent), nuclear (13 percent), geothermal (five percent), and

[19] The British Thermal Unit (Btu) is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit.

[20] Energy Information Administration, State Energy Data 2003: Consumption www.eia.doe.gov/emeu/states/sep_sum/html/pdf/rank_use/pdf

renewables (four percent). Approximately 78 percent of the electricity was generated within California, with the balance imported from other states, Canada, and Mexico.

California relies heavily on imported electricity from both the Southwest and the Pacific Northwest. By 2016, California utilities will need to procure approximately 24,000 Mega Watts (MW) of peak resources to replace expiring contracts and retiring power plants, and to meet peak demand growth. This amount would maintain a 15 to 17 percent reserve margin.

Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity – consuming devices within a building. Electricity supply in California involves a complex grid of power plants and transmission lines located in the Western United States, Canada, and Mexico. The issue is complicated by market forces that have become prominent since 1998, when a new regulatory environment commonly referred to as "deregulation" took effect in California. Supply is further complicated by the fact that the peak demand for electricity is significantly higher than the off-peak demand. For example, in August 2004, peak electric demand - due in large part to hot weather - reached a record high of 44,497 megawatts, which is almost double the lowest demand period.

In 2000-2001, electric demand exceeded supply (or transmission facilities) on various occasions, which required utilities to institute systematic rotating outages to maintain the stability of the grid and to prevent widespread blackouts. Since that time, additional generating capacity has come on-line and upgrades to various transmission lines are occurring.

According to the California Energy Commission's *2005 Integrated Energy Policy Report*, maintaining adequate electricity reserves will be difficult over the next few years due to potential impacts of higher-than-average summer temperatures, shortages resulting from decreased hydroelectric generation in lower-than-average precipitation years, and retirement of aging natural gas-fired power plants.

3.13.2.2 *Natural Gas*

In 2004, natural gas was used to produce electricity (50 percent), in industrial uses (18 percent), in commercial uses (9 percent), in residential uses (22 percent), and for transportation (less than one percent). California imports 87 percent of its natural gas supplies from other states and Canada. California's natural gas supplies are increasingly threatened by declining production in the United States and growing demand in neighboring states.[21]

Natural gas usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all gas-consuming devices within a building. That said, the average annual usage of natural gas is roughly 45,000 cubic feet per residence. The average annual usage of natural gas is roughly 37 cubic feet/square foot for all commercial buildings and roughly 29 cubic feet per square foot for office buildings.

According to the California Energy Commission's *2003 Integrated Energy Policy Report*, the current outlook is that Northern California will have an adequate supply of natural gas through 2007. Meeting peak demand under extreme weather conditions may require gas infrastructure

[21] California Energy Commission. 2005 Integrated Energy Policy Report. November 2005. Page 137.

improvements (e.g., additional pipeline capacity) earlier than currently programmed.

3.13.2.3 *Fuel for Motor Vehicles*

In 2004, Californians consumed roughly 15.4 billion gallons of gasoline and 2.8 billion gallons of diesel. This is a 50 percent increase over the amount that was used 20 years ago. The primary factors contributing to this increase are: 1) population growth and more on-road vehicles, 2) low per mile cost of gasoline for the past two decades, 3) lack of alternatives to conventional gasoline and diesel fuels, 4) consumer preference for larger, less fuel-efficient vehicles, and 5) land-use planning that places jobs and housing farther apart without transportation integration.

The average fuel economy for the fleet of light-duty vehicles (autos, pickups, vans, and SUVs) steadily increased from about 12.6 miles-per-gallon (mpg) in the mid-1970s to the current 20.7 mpg; however, no further improvements in the average fuel economy for the overall fleet are projected through the year 2020. This conclusion is based on the fact that projected increases in the number of fuel-efficient cars (e.g., hybrids) will be offset by projected increases in the number of SUVs, pickups, and vans. Although no new refineries have been constructed in California since 1969, supply has kept pace with demand through a combination of refinery upgrades/modernizations and out-of-state imports.

According to the California Energy Commission, if the state takes no further action to reduce the petroleum use and current greenhouse gas regulations remain in place, the demand for gasoline in California will increase to nearly 15.6 billion gallons per years by 2025. The demand for diesel fuel is estimated to grow to 4.9 billion gallons by 2025. Imports of foreign crude oil will increase as in-state and Alaskan supplies diminish. Since California refineries are already operating close to their full capacity, daily imports of refined gasoline and diesel are expected to double over the next 20 years.

Unless out-of-state facilities expand, the gasoline and diesel markets will become more volatile, increasing the likelihood of shortages and more prolonged periods of high prices.

2.13.3 Energy and Mineral Resource Impacts

For the purposes of this EIR, an energy and mineral resource impact would be significant if the project would:

- Use fuel or energy in a wasteful manner; or
- Result in a substantial increase in demand upon energy resources in relation to projected supplies; or
- Result in longer overall distances between jobs and housing; or
- 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; or
- 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.

3.13.3.2 *Discussion of Impacts*

Energy Efficiency and Use

Development on the site will be constructed to meet the requirements of Title 24 of the California Administrative Code, as it pertains to energy efficiency. The project will also be required to comply with the California Community Colleges Board of Governor's Energy and Sustainability Policy adopted in January 2008. The policy requires substantial energy savings on existing campuses and in new buildings and facilities. The policy includes three main goals:

- Energy Efficiency and Conservation Goals - This goal includes reducing each campus energy use 15 percent by 2011-12, design new facilities that out-perform the energy code by 15 percent,

- Energy Independence Goal - The goal promotes energy independence using available economically feasible technology or procuring 20 percent of their electricity needs from renewable sources by 2010 and 40 percent by 2014.

- Energy Conservation, Sustainable Building and Physical Plant Management Best Practices - This goal designates energy/utility managers at the campus level and develops energy and sustainable strategic plans for each campus.

The proposed project will construct approximately 601,792 square feet of campus buildings on the site. Development of the site with the proposed uses will consume energy during both the construction and operational phases of the project. The construction phase will require energy for the manufacture and transportation of building materials, preparation of the site (e.g., grading), and the actual construction of the buildings. The operational phase will consume energy for multiple purposes including - but not limited to - building heating and cooling, lighting, appliances, and electronics. Operational energy will also be consumed during each vehicle trip associated with the proposed uses.

Development of the site with the proposed land use would increase annual electricity usage by 7,823,300 kWh/year and natural gas usage by 22,266,300 million cubic feet.

Direct Energy Impacts

Under the proposed project, a new community college would be constructed on the project site. Energy would be consumed during both the construction and operational phases of the proposed development. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the project site (grading and fill), and the actual construction of the buildings and infrastructure. The transport of earth fill to the site (450,000 cubic yards) would require approximately 45,000 total truck trips with an average haul distance of ten miles. This would result in a substantial use of truck fuels and gasoline consumption.

Impact ENR – 1: The transportation of fill to the site during construction will result in a significant consumption of gasoline and therefore, would result in a significant energy impact. **[Significant Impact]**

The operational phase would consume energy for building lighting, and operation on the project site.

Operational energy would also be consumed during each vehicle trip associated with the proposed uses. The District has experienced two years (2006 – 2007) of unprecedented growth; 13 percent last year followed by 11 percent so far this current semester (fall 2007). The District wants to recapture more than 1,800 existing Gavilan District students that currently drive past the proposed site and travel to other community college districts located to the north including West Valley-Mission, San José-Evergreen College District, and Foothill-DeAnza. This will reduce travel distances and travel times for students and also reduce the associated fuel energy consumption and air pollution emissions. Since a portion of the project vehicle trips already exist on the roadways (the 1,800 student trips that pass the site to attend other colleges to the north), by locating another college campus closer to more students, vehicle trips distances would be reduced and the amount of energy required for vehicle trips would be reduced. **[Less Than Significant Impact]**

3.13.3 Conclusion

The proposed project particularly construction of the project, would result in a substantial increase in energy use. **[Significant Unavoidable Impact]**

4.0 CUMULATIVE IMPACTS

Cumulative impacts, as defined by CEQA, refer to the combined effects of two or more individual projects, (developments, programs, etc.) which when considered together are considerable or which compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant project impacts taking place over a period of time. The CEQA Guidelines (§15130) state that an EIR should discuss cumulative impacts and consider them significant when the project's contribution is "cumulatively considerable." The discussion does not need to be in as great detail as is necessary for project impacts, but is to be "guided by the standards of practicality and reasonableness." The purpose of the cumulative analysis is to allow decision makers to better understand the impacts that might result from approval of past, present and reasonably foreseeable future projects, in conjunction with the proposed project addressed in this EIR.

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence. To accomplish these two objectives, the analysis should include either a list of past, present and probable future projects or a summary of projections from an adopted general plan or similar document. The analysis must then determine what the project's contribution to any cumulatively significant impact is cumulatively considerable, as defined by §15065(a)(3) of the CEQA Guidelines.

The analysis in this section is based upon consideration of a list of approved and pending projects within or near the proposed project (refer to Table 19 and Figure 16). The Gavilan College campus project is included within the proposed Coyote Valley Specific Plan (CVSP) area, the second project listed in Table 19. The proposed 55 acres Gavilan College campus project constitutes 1.5 percent of the proposed CVSP 3,780 acre area of urban development. The CVSP project also includes all of the property in the approved Coyote Valley Research Park (CVRP) project, the first project in Table 19, therefore, impacts from CVRP would be replaced by the CVSP project, should it be approved. Results of the replacement of the CVRP uses by the CVSP project and the overall cumulative impacts are best represented by the proposed CVSP project. A summary of impacts from the proposed CVSP project is included in Appendix I. Each impact that the college contributes to is discussed below.

Table 19: List of Cumulative Projects

	Project Name/Location	Acres	Project Description
	Approved But Not Completely Built Out		
1	Coyote Valley Research Park (CVRP), north of Bailey Avenue, south of Tulare Hill, east of the Santa Teresa Hills, and west of the UPRR tracks	688	6.6 million square feet of industrial/office/research and development uses. Associated traffic and flood control improvements have been constructed or are currently being constructed and preliminary applications for grading have been completed.
	Pending Projects		
2	Coyote Valley Specific Plan (CVSP), west of US 101, north of the City of Morgan Hill, south of Tulare Hill and Santa Teresa Hills, west of the Santa Cruz Mountains	7,000	Adoption of the CVSP that would provide the development framework over a 25 to 50-year timeline within the specific plan area. The plan includes approximately 26,400 housing units and 1.5 million sq ft of commercial uses, 55,000 jobs, transportation system, public services, and flooding control facilities.

Analysis of Cumulative Impacts

The contribution of the Gavilan College campus project on several cumulative impacts is proportional to the acreage covered by the proposed project, as compared to the overall CVSP project (1.5%), as explained above. Examples of these impacts are traffic and air quality and visual. Each of the College campus contribution to cumulative impacts is described subsequently in this section. Unless otherwise stated, the thresholds of significance used throughout the analyses of cumulative impacts are the same listed as those listed in Section 3, Environmental Setting, Impacts, and Mitigation of this EIR.

4.1 LAND USE IMPACTS

As described in the CVSP EIR, the proposed CVSP project would result in the loss of approximately 2,400 acres of prime farmland. The EIR concluded this would result in significant cumulative impacts related to the loss of agricultural land. The proposed college campus project would result in the loss of approximately 50 acres of actively cultivated agricultural land. As discussed in Section 3.1.2, based upon the project site's low LESA score and the fact that the project site is not Prime Farmland, Unique Farmland or Farmland of Statewide Importance, the project's conversion of agricultural land would not result in a project-specific significant land use impact. The small percentage (1.5%) the college campus project contributes to the loss of agricultural land is not a cumulatively considerable amount to be a significant impact. **[Less Than Significant Cumulative Impact]**

4.2 CUMULATIVE TRANSPORTATION IMPACTS

Traffic volumes for cumulative conditions comprise volumes from existing traffic counts plus traffic generated by other approved developments in the vicinity of the site, project-generated traffic, and traffic from proposed but not yet approved developments.

The traffic volumes used under cumulative growth conditions are based on the Year 2005 with full buildout of the Coyote Valley Specific Plan (CVSP) conditions reflected in the CVSP Draft EIR. The volumes consist of Year 2005 traffic counts with the addition of approved project traffic and the traffic associated with the proposed Coyote Valley Specific Plan.

4.2.1 CVSP Roadway Improvements

Several transportation improvements within Coyote Valley are planned as part of the CVSP and are assumed to be operational prior to or at the time of buildout of the Specific Plan. The improvements consist of the construction of an entirely new street network with the creation of several new intersections within Coyote Valley. Several improvements to the major roadway facilities serving the valley are also planned including two new interchanges with US 101 and several arterial interchanges with Monterey Road. Each of the planned improvements is described below.

4.2.1.1 *Roadway Improvements*

The following are major roadway improvements that will be necessary to provide access to Coyote Valley from regional transportation facilities and provide for efficient circulation within Coyote Valley.

- Coyote Valley Parkway Interchange with US 101 – A new interchange north of the existing Bailey Avenue interchange with US 101 will be constructed and will provide full access to and from US 101. The interchange will serve as the northerly most access point to US 101.

- Improved US 101 Interchanges – The existing interchanges at Bailey Avenue and Coyote Creek Golf Course Drive will be improved to serve six-lane arterials to Coyote Valley.

- Arterials To and From US 101 – Coyote Valley will be served by three six-lane arterials (Coyote Valley Parkway, Bailey Avenue, and Coyote Creek Drive) to and from US 101. Each of the arterials will be six-lanes from US 101 to the new north/south arterial within Coyote Valley. The arterials will then narrow to two or four lanes within the valley.

- Coyote Valley Parkway – A new six to four lane arterial will run from the planned Coyote Valley Parkway interchange at US 101 to the reconfigured Coyote Creek Drive interchange at US 101. East of the new north-south arterial, Coyote Valley Parkway will be six-lanes wide. West of the north/south arterial the parkway will narrow to four-lanes. The parkway will wind around the western edge of the valley providing access to all major arterials and several collector roads. Nine intersections with major roadways along Coyote Valley Parkway may be roundabouts as opposed to conventional signalized intersections so as to improve capacity and efficiency of the parkway

- North/South Arterial – A new four-lane arterial will run parallel to and along the west side of Monterey Road. The roadway will extend between Coyote Valley Parkway north and south.

- Internal Coyote Valley Roadway System – To facilitate the efficient circulation of traffic within and through Coyote Valley, several new local streets and major arterials will be constructed. The streets would serve future development and provide connections to areas both north and south of Coyote Valley. The new streets would include a four-lane parkway along the western edge of Coyote Valley that will provide connections to US 101, Monterey Road, and Santa Teresa Boulevard. A four-lane north/south arterial running parallel and along the Westside of Monterey Road also will be provided. Several two-lane collectors will provide access from the major arterials to areas throughout the valley.

- Monterey Road – Monterey Road runs from South First Street near downtown San Jose south through Gilroy. It is currently two lanes in each direction though Coyote Valley, between Bernal Road and Cochrane Road. Monterey Road will remain two lanes in each direction through Coyote Valley with four grade-separated interchanges fed by major arterials leading to Coyote Valley.

- Santa Teresa Boulevard – The alignment of Santa Teresa Boulevard through Coyote Valley will be adjusted. The roadway would enter the valley from the north as a four-lane arterial, but narrow to a two lane collector through the core of Coyote Valley, then widening back to four lanes, and narrow back to two lanes south of Coyote Valley Parkway.

- Bailey Avenue – Bailey Avenue will be reconfigured to provide direct access to the core of Coyote Valley. The roadway will vary from two to six lanes and will not be continuous.

Intersection Improvements and Adjustments

- In addition to the major roadway improvements described above, several smaller intersection improvements and/or adjustments also will be constructed as part of the CVSP project. The intersection improvements described below are associated with existing intersections within Coyote Valley that will either be reconfigured or eliminated as part of the new roadway system.

- Monterey Road and Bailey Avenue – The recently constructed intersection located on the north side of the Bailey Avenue overpass of Monterey Road will be reconfigured to accommodate the new square loop interchange that will be constructed as part of the new Bailey Avenue/Monterey Road grade-separated interchange. A second intersection south of the Bailey over-crossing will also be constructed.

- Santa Teresa Boulevard and Bailey Avenue – The existing intersection of Bailey Avenue with Santa Teresa Boulevard will be eliminated as part of the new roadway system within Coyote Valley.

- Monterey Road and Bernal Road (South) – Required mitigation for CVSP consists of the conversion of the northbound controlled right-turn lane to an uncontrolled right-turn lane with its own receiving lane.

- US 101 and Bernal Road (East) – Required mitigation for CVSP consists of the widening of Bernal Road to six-lanes. Bernal Road would need to be widened to six-lanes between the southbound US 101 off ramp and through the northbound off-ramp. The improvement will require adjustment of the US 101 over-crossing structure of Bernal Road.

- SR 85 and Bernal Road – Required mitigation for CVSP consists of the addition of a second westbound (on the SR 85 off-ramp) left-turn lane. The improvement would fit within the existing right-of-way, but would require restriping and signal modifications.

4.2.2 Intersection Levels of Service Under Cumulative Growth Conditions

The level of service results for the study intersections under cumulative growth conditions, with the above described transportation improvements are summarized in Table 20. The results show that all of the CMP study intersections would operate at an acceptable LOS D or better during both peak hours under cumulative growth conditions. **[Less Than Significant Cumulative Impact]**

Table 20:
Cumulative Intersection Levels of Service

Intersection	Peak Hour	Average Delay	LOS
1. Monterey Road and Metcalf Road	AM	20.9	C
	PM	9.7	A
2. Monterey Road and Blanchard Road	AM	5.0	A
	PM	5.4	A
3. Monterey Road and Bailey Avenue (N)	AM	17.4	B
	PM	14.2	B
4. Monterey Road and Bailey Avenue (E)	AM	N/A	-
	PM	N/A	-

Table 20:
Cumulative Intersection Levels of Service

Intersection	Peak Hour	Average Delay	LOS
5. Monterey Road and Palm Avenue	AM	9.7	A
	PM	8.5	A
6. Monterey Road and Live Oak Avenue	AM	8.2	A
	PM	10.0	A
7. US 101 and Bailey Avenue (E)	AM	15.1	B
	PM	6.0	A
8. US 101 and Bailey Avenue (W)	AM	30.2	C
	PM	27.5	C
9. Santa Teresa Boulevard and Bailey Avenue	AM	N/A	-
	PM	N/A	-
10. US 101 and Bernal Road (E)	AM	45.2	D
	PM	19.6	B
11. US 101 and Bernal Road (W)*	AM	19.5	B
	PM	12.0	B
12. SR 85 and Bernal Road*	AM	27.1	C
	PM	50.4	D
13. Monterey Road and Bernal Road (E)*	AM	15.0	B
	PM	8.2	A
14. Monterey Road and Bernal Road (N)*	AM	22.4	C
	PM	31.3	C
15. Monterey Road and Bernal Road (S)*	AM	19.7	B
	PM	25.4	C
16. San Ignacio Avenue and Bernal Road	AM	22.0	C
	PM	40.1	D
17. Santa Teresa Boulevard and Bernal Road*	AM	36.4	D
	PM	36.2	D
18. Santa Teresa Boulevard and Chantilly Lane	AM	9.6	A
	PM	10.4	B
19. Santa Teresa Boulevard and Avenida Espana	AM	15.2	B
	PM	11.2	B
20. Monterey Road and Menard Drive	AM	8.8	A
	PM	9.8	A
21. Monterey Road and Monterey Circle	AM	9.0	A
	PM	9.8	A
22. Monterey Road and Tilton Avenue	AM	18.8	B
	PM	20.0	C
23. Monterey Road and Madrone Parkway	AM	19.1	B
	PM	18.8	B
24. Monterey Road and Cochrane Road	AM	30.6	C
	PM	30.0	C
25. US 101 and Cochrane Road (W)	AM	12.9	B
	PM	26.9	C
26. US 101 and Cochrane Road (E)	AM	11.5	B
	PM	10.5	B
27. IBM Entrance and Bailey Avenue (E)	AM	N/A	-
	PM	N/A	-

Table 20:
Cumulative Intersection Levels of Service

Intersection	Peak Hour	Average Delay	LOS
28. IBM Entrance and Bailey Avenue (W)	AM	N/A	-
	PM	N/A	-
29. McKean Rd. and Bailey Avenue	AM	36.1	D
	PM	30.7	C
30. Santa Teresa Blvd. and Cheltenham Way	AM	14.3	B
	PM	14.7	B
31. Santa Teresa Blvd. and Bayliss Drive	AM	16.6	B
	PM	36.7	D
32. Hale Avenue and Tilton Avenue	AM	15.9	B
	PM	16.7	B
33. Monterey Road and Bailey Avenue (S)	AM	4.4	A
	PM	9.7	A
CMP intersection is denoted with an asterisk (*).			

4.3 CUMULATIVE AIR QUALITY IMPACTS

As described previously in Section 3.3.2 of this EIR, the proposed project's new traffic trips would lead to increased emissions of air pollutants. The new campus would shorten travel distances substantially by capturing students that currently travel north past the project site to other community college campuses; however, the net new emissions of PM_{10} would be slightly above the significance thresholds established by the BAAQMD and would result in a significant and unavoidable air quality impact. As stated in the BAAQMD guidance for CEQA documents, if a project is found to have an individually significant air quality impact, it would also be considered to have a significant cumulative impact.

Impact C-AIR-1: According to BAAQMD thresholds, the proposed project, in combination with the cumulative projects, would result in a significant regional air quality impact. **[Significant Cumulative Impact]**

4.4 CUMULATIVE GLOBAL CLIMATE CHANGE IMPACTS

This section provides a general discussion of global climate change and focuses on emissions from human activities that alter the chemical composition of the atmosphere. The discussion on global climate change and greenhouse gas emissions is based upon the California Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32), the 2006 Climate Action Team (CAT) Report to Governor Schwarzenegger and the Legislature, and research, information and analysis completed by the International Panel on Climate Change (IPCC), the United States Environmental Protection Agency, California Air Resources Board and the CAT. Estimates of greenhouse gas emissions for several components of the project are provided in Appendix C of this EIR.

Global climate change refers to changes in the Earth's weather including temperature, precipitation, and wind patterns. Global temperatures are affected by naturally occurring and anthropogenic-generated (generated by mankind) atmospheric gases, such as carbon dioxide, methane, and nitrous oxide.[22] These gases allow sunlight into the Earth's atmosphere, but prevent heat from radiating back

[22] IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of

out into outer space and escaping from the earth's atmosphere, thus altering the Earth's energy balance. This phenomenon is known as the "greenhouse effect".

The world's leading climate scientists have reached consensus that global climate change is underway, is "very likely" caused by humans, and hotter temperatures and rises in sea level "would continue for centuries," no matter how much humans control future emissions. A report of the Intergovernmental Panel on Climate Change (IPCC) - an international group of scientists and representatives concludes "The widespread warming of the atmosphere and ocean, together with ice-mass loss, support the conclusion that it is extremely unlikely that global climate change of the past 50 years can be explained without external forcing, and very likely that it is not due to known natural causes alone."[23]

Human activities have exerted a growing influence on some of the key factors that govern climate by changing the composition of the atmosphere and by modifying vegetation. The concentration of carbon dioxide in the atmosphere has increased from the burning of coal, oil, and natural gas for energy production and transportation and the removal of forests and woodlands around the world to provide space for agriculture and other human activities. Emissions of other greenhouse gases, such as methane and nitrous oxide, have also increased due to human activities. Carbon dioxide accounts for approximately 85 percent of total emissions from human sources, and methane and nitrous oxide account for almost 14 percent. Each of these gases, however, contributes to global warming at a different relative rate. Methane has a global warming potential 23 times that of carbon dioxide, while nitrous oxide is 296 times that of the same amount of carbon dioxide. To account for these differences, estimates of greenhouse gas emissions are often described in terms of carbon dioxide equivalents.

The IPCC predicts a temperature increase of between two and 11.5 degrees Fahrenheit (F) (1.1 and 6.4 degrees Celsius) by the end of the 21st century under six different scenarios of emissions and carbon dioxide equivalent concentrations.[24] Sea levels are predicted to rise by 0.18 to 0.59 meters (seven to 23 inches) during this time, with an additional 3.9 to 7.8 inches possible depending upon the rate of polar ice sheets melting from increased warming. The IPCC report states that the increase in hurricane and tropical cyclone strength since 1970 can likely be attributed to human-generated greenhouse cases.

On a per-person basis, greenhouse gas emissions are lower in California than most other states; however, California is a populous state and the second largest emitter of greenhouse gases in the United States and one of the largest emitters in the world.[25] Transportation is the largest source of greenhouse gas emissions in California, followed by industrial sources and electric power generation.[26]

Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at: http://www.ipcc.ch/.

[23] *Climate Change 2007 - The Physical Science Basis Contribution of Working Group I to the Fourth Assessment Report of the IPCC*. February 2, 2007. [http://ipcc-wg1.ucar.edu/wg1/wg1-report.html]

[24] IPCC. 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. [http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf]

[25] California Legislative Analyst's Office. 2006. *Analysis of the 2006-07 Budget Bill (Governor's Climate Change Initiative).* [http://www.lao.ca.gov/analysis_2006/resources/res_04_anl06.html]

[26] California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature.* [http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-

According to the 2006 Climate Action Team Report[27] the following climate change effects and conditions can be expected in California over the course of the next century:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the state's water supply;
- Increasing temperatures from eight to 10.4 degrees Fahrenheit (F) under the higher emission scenarios, leading to a 25 to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas;
- Coastal erosion along the length of California and sea water intrusion into the Sacramento River Delta from a four-to 33-inch rise in sea level. This would exacerbate flooding in already vulnerable regions;
- Increased vulnerability of forests due to pest infestation and increased temperatures;
- Increased challenges for the state's important agricultural industry from water shortages, increasing temperatures, and saltwater intrusion into the Delta; and
- Increased electricity demand, particularly in the hot summer months.

4.4.1 Regulatory Context for Global Climate Change

Global climate change resulting from greenhouse gas emissions is an emerging environmental concern being raised and discussed at the international, national, and statewide level. At each level, agencies are considering strategies to control emissions of gases that contribute to global warming.[28] Regulatory efforts in California that apply to the project are summarized below.

4.4.1.1 *State of California Executive Order S-3-05*

In June 2005, the Governor of California signed Executive Order S-3-05 which identified Cal/EPA as the lead coordinating State agency for establishing climate change emission reduction targets in California. A "Climate Action Team", a multi-agency group of state agencies, was set up to implement Executive Order S-3-05. Under this order, the state plans to reduce greenhouse gas emissions to 80 percent below 1990 levels by 2050. Greenhouse gas emission reduction strategies and measures to reduce global warming were identified by the California Climate Action Team in 2006.[29]

03_FINAL_CAT_REPORT.PDF]

[27] California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature.* [http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT.PDF]

[28] On April 2, 2007, the United States Supreme Court issued a 5-4 decision in *Massachusetts v. EPA*, which holds that the U.S. Environmental Protection Agency has authority under the Clean Air Act to regulate greenhouse gas emissions from new vehicles. The U.S. EPA had previously argued it lacked legal authority under the Clean Air Act to regulate greenhouse gases. The majority opinion of the Supreme Court decision noted that greenhouse gases meet the Clean Air Act's definition of an "air pollutant," and the EPA has the statutory authority to regulate the emission of such gases from new motor vehicles.

[29] California Environmental Protection Agency. 2006. *Climate Action Team Executive Summary Climate Action Team Report to Governor Schwarzenegger and the California Legislature.* [http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT_EXECSUMMARY.PDF]

4.4.1.2 *Assembly Bill (AB) 32—The California Global Warming Solutions Act of 2006*

Subsequently, in the fall of 2006, California AB 32, the global warming bill, was signed into law. AB 32 requires the state Air Resources Board (ARB) to adopt regulations by January 1, 2008 to require reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with that program. The bill requires achievement by 2020 of a statewide greenhouse gas emissions limit equivalent to 1990 emissions, and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions. and the ARB in 2007. Strategies include, but are not limited to, new vehicle emission standards, enforcement of diesel truck anti-idling requirements, capture of more methane from landfills, hydrofluorocarbon (HCF) reduction strategies for the use and disposal of refrigerants, manure management in agricultural operations, and increased use of alternative fuels. In December 2007, the ARB outlined a reporting and monitoring program for greenhouse gases. Modifications to regulatory programs of various state agencies are on-going. An inventory of 1990 emissions has not been completed to date.

AB32 requires ARB to adopt mandatory reporting rules for sources of substantial greenhouse gases by January 1, 2009, adopt a plan for reducing greenhouse gas emission by January 1, 2009 that outlines how emission reductions will be achieved, and adopt regulations by January 1, 2011 to obtain the maximum technologically feasible and cost-effective reductions in greenhouse gases.

4.4.1.3 *Senate Bill 97—Modification to the Public Resources Code*

On August 24, 2007, Governor Schwarzenegger signed SB 97 which requires the Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, including, but not limited to effects associated with transportation or energy consumption. The Resources Agency is required to certify and adopt these guidelines by January 1, 2010.

Currently there is no established guidance, from the state or in published CEQA case law, for the determination of what constitutes a significant global climate change impact or what measures are necessary to off-set new greenhouse gas emissions.

4.4.1.4 *Community College Board Policies*

The California Community Colleges Board of Governor's adopted an Energy and Sustainability Policy in January 2008 to provide for substantial energy savings on existing campus and in new buildings and facilities. Saving energy would in turn reduce greenhouse gas emissions. The policy includes three main goals:

- Energy Efficiency and Conservation Goals - This goal includes reducing each campus energy use 15 percent by 2011-12, design new facilities that out-perform the energy code by 15 percent,

- Energy Independence Goal - The goal promotes energy independence using available economically feasible technology or procuring 20 percent of their electricity needs from renewable sources by 2010 and 40 percent by 2014.

- Energy Conservation, Sustainable Building and Physical Plant Management Best Practices - This goal designates energy/utility managers at the campus level and develops energy and

sustainable strategic plans for each campus.

4.4.2 Existing Baseline Emissions

Under existing conditions, greenhouse gas emissions from human activities at the project site are limited to mobile sources from equipment used to plow the 55-acre site for weed control (i.e., a tractor and truck and trailer).

The existing main Gavilan College campus is located in Gilroy, approximately 23 miles from the project site. Approximately 1,838 students in the Gavilan College District currently attend other community colleges in San José and northern Santa Clara County and travel approximately 14-25 miles beyond the boundaries of the District when traveling to and from their residences in the South Santa Clara County area.

4.4.3 Global Climate Change Impacts

Given the global scope of global climate change and the large quantity of greenhouse gas emissions, the challenge under CEQA is for a Lead Agency to present information on the possible impacts of a project on global warming in a way that is meaningful to the decision making process. Under CEQA, there are two essential questions: would a project increase or substantially contribute to an environmental impact *or* would the project be subject to impacts from the environment associated with global climate change.

Accordingly, projects can both contribute to global climate change and be exposed to impacts from global climate change, and mitigation measures can be identified to minimize project impacts to and from global climate change.

4.4.3.1 *Thresholds of Significance*

Under State Senate Bill (SB) 97 (August 2007), the State Office of Planning and Research is to certify and adopt guidelines for evaluation of the effects of greenhouse gas emissions and mitigation of those effects by January 1, 2010. Neither CEQA nor the CEQA Guidelines currently provide any methodology for analysis of greenhouse gases. Absent established standards for gauging the significance of greenhouse gas emissions, a primarily qualitative approach will be used to evaluate possible impacts for this project.

For the purposes of this EIR, a global climate change impact would be significant if the project would:

- result in substantial new greenhouse gas emissions; or
- be adversely impacted by sea level rise of two to three feet.

At this time, for a project to be a substantial source of new greenhouse gas emissions it would have to meet the following criteria:

- result in a net increase in greenhouse gas emissions, in terms of carbon dioxide equivalents, that could substantially impede local, regional or statewide efforts to reduce overall greenhouse gas emissions to 1990 levels; or
- is inconsistent with carbon dioxide emissions reduction strategies contained in the 2006 Final

Report by the California Climate Action Team.

4.4.3.2 *Impacts from the Project (Changes in Emissions of Greenhouse Gases)*

The proposed project would allow development of vacant land with a new community college campus. The primary sources of greenhouse gas emissions for the proposed project are anticipated to be combustion of fossil fuels for vehicle trips to and from the site, from grid-delivered electricity for lighting, appliances, and building cooling, and from building heating with natural gas. Electricity would also be used to pump potable water to the site. A relatively large amount of fill material will be required to develop a community college campus at this location due to flooding and drainage conditions. Approximately 45,000 truck trips will be required during development of the site.

Currently, there is not one model capable of estimating all of a project's direct and indirect greenhouse gas emissions.[30] One model, the URBEMIS 2007 model (Version 9.2) can estimate vehicle miles traveled for a particular project and the carbon dioxide emissions from transportation and other land use factors (e.g.., combustion products for on-site heating); however, it does not estimate other energy use or greenhouse emissions from the generation of electricity for lighting, cooling, pumping water or other uses.

For the purpose of this EIR, the significance of emissions of greenhouse gases will be evaluated based on a qualitative discussion of estimated net new greenhouse gas emissions, measures included in the project to reduce greenhouse gas emissions, and the consistency of the proposed project with strategies for reducing future greenhouse gas emissions identified by the California Climate Action Team in 2006. For transportation and construction, an estimate of net emissions under the proposed project was made using the URBEMIS 2007 model. An estimate of possible greenhouse gas emissions from electricity use was also made based upon U.S. Department of Energy factors. These factors may be higher than energy use rates for buildings meeting the State of California Energy Code (California Code of Regulations Title 24, Part 6). The following discussion is a good faith effort at estimating possible greenhouse gas emissions from transportation and electricity use.

Vehicle Emissions

The traffic impact study for the project indicates that a 10,000 new student campus would add about 12,000 new daily traffic trips. Currently, more than 1,838 students residing in the college district travel north past the project site to other community college campuses. The Gavilan District estimates that about 1,470 of these 1,838 existing District students would use facilities in the District if there was additional capacity or programs. The project, therefore, would generate an estimated 10,236 net new daily trips (12,000 trips-1,764 trips). In addition, the trip length of the estimated 1,764 trips that would be diverted to the proposed new campus would be approximately 14 to 25 miles shorter than under existing conditions.

Emissions of air pollutants associated with the project were predicted using the URBEMIS2007 model (Version 9.2), distributed by the California Air Resources Board and recommended for use by the BAAQMD. This model predicts daily emissions associated with land use developments. The model combines predicted daily traffic activity, associated with the college land use type, with emission factors from the State's mobile emission factor model (i.e., EMFAC2007). The net new VMT is 49,016 miles per year. Based on the carbon dioxide emission rate assumptions in the model,

[30] Source: California Air Pollution Control Officers Association. 2008. *CEQA & Climate Change, Evaluating and addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.*

the net new carbon dioxide vehicle emissions would be approximately 9,891 metric tons of carbon dioxide per year.

Electricity Use

As discussed in Section 3.13 Energy, the future project would result in an increase in electricity use of approximately 7,823,300 kWH/year. The generation of electricity through the combustion of fossil fuels (such as natural gas) yields carbon dioxide, as well as smaller amounts nitrous oxide and methane.

Using data from the U.S. Department of Energy, Energy Information Administration Office of Integrated Analysis of Forecasting and the estimated electricity use for buildout of the project it is estimated that the proposed development would emit approximately 2,151 metric tons of carbon dioxide a year, 0.236 metric tons of methane a year.[31] Using a 2006 conversion rate for Pacific Gas and Electric electricity generation from its range of sources (i.e., coal, natural gas, nuclear, wind, and hydroelectric), 1,735 metric tons of greenhouse gas emissions would be generated.[32]

Construction Vehicle Emissions from Trucks Hauling Fill Materials/Other Emissions Sources

As mentioned previously in Section 3.13 Energy, the construction phase would require transport of earth fill (450,000 cubic yards) to the site and would require approximately 45,000 total truck trips with an average haul distance of ten miles. This would result in a substantial short-term use of truck fuel and generation of approximately 1,336 metric tons of greenhouse gas/carbon dioxide.

Strategies to Reduce Greenhouse Gas Emissions

Given the relatively large contribution of greenhouse gases from the State of California as a whole, the State of California is in the process of implementing identified strategies to reduce emissions. Strategies in the *Final Climate Action Team Report to the Governor and Legislature* (2006) that apply to the proposed project are listed in Table 21.

Table 21:
Consistency of Project with Applicable State of California Climate Change Emission Reduction Strategies[1]

Responsible State Agency[2]	Strategy	Consistency
Department of Water Resources	Water Use Efficiency	Yes. Saving water saves energy, and consequently reduces emissions. To reduce the amount of electricity, natural gas, and diesel used to convey, treat, and distribute water, the project would use efficient water management practices.
Business,	Measures to Improve	No. The project site is located at the northern end of

[31] United States Department of Energy, Energy Information Administration Office of Integrated Analysis and Forecasting. Updated State-level Greenhouse Gas Emission Coefficients for Electricity Generation 1998-2000. April 2002. Available at: http://www.eia.doe.gov/pub/oiaf/1605/cdrom/pdf/e-supdoc.pdf.

[32] Using a greenhouse gas emission rate of (0.489 / 2000) tons per kilowatt hour for Pacific Gas and Electric sources in 2006. One ton is equivalent to 0.91 metric tons. Source: McDonough, Karen, Department of Environmental Services, email Communications, September. 21, 2007.

Transportation and Housing	Transportation Energy Efficiency	the community college district and is not located in immediate proximity to housing or job centers or near transit. It would not slow the growth rate of vehicle miles traveled or reliance on petroleum.

Notes:
[1] California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature.* [http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT.PDF]
[2] Some strategies identified by the California Climate Action Team call for implementation of regulations and standards that could conceivably apply to equipment used at the site. For example, heavy trucks and light trucks that would travel to and from the site under the proposed project would be subject to changes in standards for emissions, diesel anti-idling requirements, technology improvements, and any regulations requiring the use of alternative fuels. The development of standards and their implementation are the responsibility of the Air Resources Board and would apply to other heavy truck and light trucks in California. The project would not impede implementation of these strategies. Therefore, the consistency of the project with these strategies is not discussed further.

Impact C-GCC-2: Due to the proposed location of the new campus, the project would result in a net increase in carbon dioxide emissions and it would not be consistent with strategies to reduce Vehicle Miles Traveled per capita over time. The project, along with other cumulative projects, would contribute to a significant cumulative global climate change impact. **[Significant Cumulative Impact]**

4.4.3.3 *Impacts to the Proposed Project from Global Climate Change*

As noted previously, climate change effects expected in California over the next century could include reduced water supply, impacts from sea level rise, and increased electricity demand, particularly in the hot summer months.

Impacts to the project from global climate change could include reduced water availability due to droughts. Water would be used on the site for potable water supplies, plumbing fixtures, laboratories, and landscape use. At this time, based on recent case law, neither the State Department of Water Resources or the Santa Clara Valley Water District has established the effects of global climate change on water supplies in California or locally.[33]

The project site is located over ten miles from San Francisco Bay and is not within possible inundation areas from an up to three meter (approximately 10 feet) rise in sea level. The project, therefore, would not be directly impacted by sea level rise.

Energy use on the proposed campus could rise during the hot summer months because energy use for building cooling could increase. In the event regional demand exceeded supply, this could result in temporary interruptions in power supply. For the proposed uses, this would be primarily an economic, rather than an environmental impact and is not discussed further. The proposed project would not be directly impacted by predicted sea level rise. **[Less Than Significant Cumulative Impact]**

33 Santa Clarita Oaks Conservancy, et al v City of Santa Clarita , et al., Los Angeles Superior Court Case No. BS084677 August 15, 2007.

4.4.4 Mitigation and Avoidance Measures

Program MM C-GCC-2.1: Future development on the site would be designed to conform with Community College Board *Energy and Sustainability Policies*, including designing new facilities that out-perform the energy code by 15 percent, using available economically feasible technology or procuring 20 percent of their electricity needs from renewable sources by 2010 and 40 percent by 2014 and designating energy/utility managers at the campus level and developing energy and sustainable strategic plans for each campus.

MM C-GCC-2.2: *Section 3.3 Air Quality* identifies several measures that could reduce VMT, including the use of shuttles, transit incentives to employees, and bicycle facilities. These measures are currently included in the project.

Reducing greenhouse gas emission levels from 2020 to 1990 levels as required under AB 32 could require a 28 to 33 percent reduction of "business-as-usual" greenhouse gas emissions depending on the methodology used to determine the future emission inventories.[34] Although the exact percent reduction that would be incorporated in the future design of campus buildings is not known, the reductions in energy use called for in the Community College Board *Energy and Sustainability Policies* (10-15 percent) cannot be considered to fully mitigate the projected increases in greenhouse gas emissions from the project. In addition, the project could result in an increase in VMT per capita, which would not be consistent with strategies designed to reduce emissions from transportation sources. The project, even with the implementation of identified energy reduction policies, would result in a significant unavoidable contribution to cumulative global climate change impacts. **[Significant Unavoidable Cumulative Impact]**

4.5 CUMULATIVE NOISE IMPACTS

4.5.1 Future Noise Environment

The future noise environment within Coyote Valley would change with planned development. The future noise environment would be characterized as suburban as agricultural land uses are developed with housing, retail, commercial, and office uses. Vehicular traffic along the proposed circulation system would continue to be the predominant noise source within Coyote Valley. Table 21 summarizes day-night average noise levels assuming future traffic conditions at long-term noise measurement locations. The future scenarios evaluated include background conditions (full build-out of CVRP), background plus college campus project conditions, and cumulative conditions (including build-out of CVSP).

34 Source: California Air Pollution Control Officers Association. 2008. *CEQA & Climate Change, Evaluating and* Addressing Greenhouse Gas Emissions for Projects Subject to the California Environmental Quality Act. January 2008.

Table 22: Day-Night Average Noise Levels at Long-Term Measurement Sites				
Location	**Existing**	**Background (Full CVRP)**	**Background (Full CVRP) Plus Project**	**Cumulative**
LT-1	66	69	72	70
LT-2	66	71	72	69
LT-3	69	75	75	73
LT-4	69	71	71	73

Major development proposals in Coyote Valley have been approved (Coyote Valley Research Park – CVRP) or are currently being evaluated (Coyote Valley Specific Plan - CVSP). Coyote Valley is an area in transition from rural to suburban. Traffic noise levels throughout Coyote Valley are expected to substantially increase as a result of cumulative development approved or planned in the area. The project's contribution to the substantial noise level increases resulting from CVRP or CVSP would be less than one (1) dBA DNL. The project would not make a cumulatively considerable contribution to future noise levels and the impact is less than significant. **[Less Than Significant Cumulative Impact]**

4.6 CUMULATIVE HYDROLOGY AND FLOODING IMPACTS

Approval and construction of the cumulative projects listed in Table 19 will result in the development or redevelopment of thousands of acres of land in Coyote Valley. For the reasons described in Section 3.7.1, these projects could result in significant drainage, flooding, and/or water quality impacts. In recent years, however, various federal, state, and local laws have been enacted for the purpose of minimizing the risks associated with flooding, as well as for the purpose of improving/maintaining water quality. Such legislation includes, but is not limited to, the National Flood Insurance Program, the federal Clean Water Act, and the California Porter-Cologne Water Quality Control Act. Public agencies including the City of San José have adopted policies and ordinances to regulate the construction and operation of new development to minimize increased runoff and to avoid increased pollution in drainage and waterways. All of the new development included in the cumulative scenario, including the proposed project, will be subject to these ordinances and policies, and to the regulatory authority of the Regional Water Quality Control Board.

In view of the applicability of ordinances, laws and regulation that would avoid or reduce the occurrence of significant hydrological and water quality impacts, it is concluded that cumulative hydrology, water quality, and flooding impacts would not be significant. The proposed project would not contribute to a significant cumulative impact. **[Less Than Significant Cumulative Impact]**

4.7 CUMULATIVE BIOLOGICAL RESOURCE IMPACTS

As described in the CVSP EIR, proposed development in North Coyote Valley will entail a mix of commercial, light industrial, residential, open space, and infrastructure uses. Impacts to sensitive habitat and resources from the proposed development within the entire North Coyote Valley are generally much greater than those anticipated from development of the current college campus project, since the college campus project site represents a very small proportion of the North Coyote Valley area (approximately 1.5 percent). It is expected that potentially significant adverse biological effects from implementation of the proposed CVSP project will be mitigated to less-than-significant

levels. With implementation of the mitigation measures, the college campus project is not expected to contribute to significant cumulative impacts to most biological resources (including California tiger salamander habitat, Burrowing Owl habitat, wetlands impacts). However, as detailed below, the Gavilan College Project could potentially contribute to significant cumulative impacts to serpentine grassland communities and associated special-status wildlife species on the hills surrounding Coyote Valley.

4.7.1 Indirect Impacts to Serpentine Grassland Habitat

Grasslands on soils derived from serpentine rock are present in a number of areas surrounding Coyote Valley, including the Santa Teresa Hills and Tulare Hill at the northern end of the valley and the hills on either side of the valley to the south. These serpentine grasslands are highly infertile because of their extremely high levels of magnesium, chromium and nickel; low concentrations of nutrients such as calcium and nitrogen; and low water-holding capacity. A unique group of vascular plant species, which can tolerate the relatively high magnesium to calcium ratio, has evolved in response to these conditions. Many exotic species in California, including the non-native grasses that have invaded much of the non-serpentine grasslands in the state, are not able to tolerate the extremely dry conditions and infertility of serpentine soils. As a result, serpentine grasslands support high-quality native plant communities, including rare plants such as the federally endangered Santa Clara Valley dudleya and Metcalf Canyon jewelflower. In turn, several invertebrate species, including the federally threatened Bay checkerspot butterfly, depend on serpentine grasslands because their host foodplants are found primarily in these habitats.

It has been demonstrated that the fertilization of serpentine grasslands with nitrogen allows some non-native grasses, particularly Italian ryegrass, to invade and become dominant, typically at the expense of native plants. Weiss (1999) described how moderate, well-managed grazing is necessary to prevent large-scale invasion of serpentine grassland by non-native grasses. Although cattle waste provides localized input of nitrogen to serpentine grasslands, the net effect of grazing is the export of nitrogen from these systems as cattle are removed from grasslands for slaughter (Weiss 1999). In the absence of grazing, Bay checkerspot butterflies disappeared from ungrazed areas due to declines in densities of their larval host plants. Weiss further provided evidence that dry nitrogen deposition resulting from smog facilitates the invasion of serpentine grassland by non-native plants. As a result, it has been suggested that increases in nitrogen emissions by increases in traffic associated with specific development projects in the South Bay could adversely affect serpentine plant and animal communities. For example, the Biological Opinion issued by the USFWS in 2001 for the U.S. Highway 101 widening, Route 85/U.S. 101 South Interchange, Bailey Avenue Extension/U.S. 101 Interchange, and Coyote Valley Research Park (CVRP) projects determined that increases in nitrogen emissions resulting from these projects, primarily as a result of increased vehicular traffic, would result in adverse effects on serpentine grasslands, and required mitigation for these effects in the form of preservation and management of serpentine grassland habitat.

The traffic impact study for the Gavilan College Project has predicted that the project will generate approximately 10,236 new daily automobile trips in the South Bay. Based on this prediction, Illingworth & Rodkin, Inc. modeled an expected net increase in emissions of nitrogen oxides (NO_x) in the South Bay region of 30 pounds/day (or 4966 kg/yr) as a result of the project.

The extent to which this project's contributions to regional air concentrations of NO_x will result in adverse effects on serpentine communities in the South Bay, or elsewhere, is unknown, for a number of reasons:

- The project will contribute only a very small proportion of the NO_x in the Coyote Valley area. The California Air Resources Board[35] estimated that Santa Clara County sources emitted approximately 36,000 tons of NO_x in 2006. The predicted NO_x emissions generated by traffic associated with the project (30 pounds/day, or 5.475 tons/year) represent 0.015 percent of the 2006 emissions for Santa Clara County. Given that emissions in areas farther north/northwest (i.e., in San Mateo and Alameda Counties) could potentially be blown by northwest winds into the Coyote Valley area, the project's contributions to smog in the Coyote Valley area may be even less on a percentage basis.

- Uncertainties exist regarding the threshold nitrogen deposition rates at which adverse effects on serpentine plant communities occur, and the effects of the addition of small amounts of nitrogen (e.g., from Gavilan College Project-related emissions) once that threshold has been reached. It has been suggested that this threshold deposition rate is 5 kg/ha-yr.[36] Current rates of nitrogen deposition on serpentine soils in the Coyote Valley area vary somewhat by location and elevation nitrogen deposition on Coyote Ridge, to the east of northern Coyote Valley, has been estimated at 15-20 kg/ha-yr at low elevations near Highway 101 and 14-15 kg/ha-yr at higher elevations on the ridge.[37] In 2007, the USFWS and CDFG estimated the ambient nitrogen deposition rate in the Coyote Valley Specific Plan area to be approximately 8.4 kg/ha-yr. Controlled experiments documenting enhanced growth of grasses in response to nitrogen fertilization have involved the addition of nitrogen to serpentine soils at the rate of 100-313 kg/ha, far greater than current deposition rates.[38] Although it may be true that existing nitrogen deposition rates are responsible for the invasions of serpentine grasslands by non-natives in the absence of grazing, and that the incremental addition of nitrogen emitted by vehicles will exacerbate this problem, experimental evidence of the effects of deposition at rates as low as 8.4-20 kg/ha-yr (i.e., the range of estimates of ambient deposition rates in the project area) is lacking.

  If current nitrogen deposition rates actually exceed the threshold value for an adverse effect, then anthropogenic nitrogen deposition is having a significant cumulative impact on Coyote Valley-area serpentine grasslands. However, once the threshold has been exceeded, the effects of further contributions to nitrogen deposition rates (especially in small quantities, such as would result from project-related emissions) are unknown. For example, under current conditions, managed grazing on serpentine grasslands provides an adequate control on non-native grasses, whereas most ungrazed serpentine grassland becomes infested with non-natives. If increases in deposition rates are great enough to require changes in grazing regime to maintain the quality of serpentine grasslands in a given area, then those incremental additions to the deposition rates would be contributing to a significant impact. However, if small incremental additions to nitrogen deposition rates do not require changes in management to maintain current conditions, then those increases in deposition rates are not exacerbating the adverse effect, and thus are not contributing to the actual impact on native serpentine communities.

[35] (http://www.arb.ca.gov/ei/emissiondata.htm)
[36] Weiss, Stuart, Creekside Center for Earth Observation, personal communication cited in USFWS and CDFG 2007.
[37] Weiss, Stuart, Creekside Center for Earth Observation, 3 June 2005 personal communication to Steve Rottenborn of H.T. Harvey & Associates.
[38] Turitzen 1982, Hobbs et al. 1988, Koide et al. 1988, Huenneke et al. 1990

- The locations in which project-related nitrogen emissions might be deposited are unknown. Presumably, most students and staff driving to the new campus would be coming from the Gavilan College District boundary area. Prevailing northwest winds would presumably carry some nitrogen emitted from project-related vehicles toward serpentine habitat on Coyote Ridge, but much (e.g., emitted from vehicles when they are south of serpentine habitat in the San Martin area) would be emitted in areas where prevailing winds are unlikely to carry it to serpentine habitat, or would be carried elsewhere away from the serpentine grasslands.

- The complexity of the nitrogen-related chemical reactions that occur both in the atmosphere and on serpentine soils precludes a simple understanding of the fate of nitrogen compounds emitted by project-related vehicular traffic, and a quantification of the effects of project-related emissions on serpentine communities. While some of the nitrogen emitted by project-related vehicular traffic would undoubtedly be deposited on serpentine grasslands in the hills surrounding the Coyote Valley, the proportion that is deposited on these grasslands, and the proportion that is used by non-native grasses, resulting in adverse effects on native plants or animals, is unknown.

- According to data from the California Air Resources Board, Santa Clara County's annual NO_x emissions have declined considerably and consistently from 1975, when approximately 70,000 tons were emitted, to 2006 (36,000 tons). Modeling predicts further declines, likely due to anticipated improvements in technology and regulatory requirements, to approximately 20,000 tons/year by 2020. Thus, projected declines in NO_x emissions should help alleviate adverse effects on serpentine habitats.

The uncertainties discussed above preclude an accurate estimation of the magnitude of the effect of project-related NO_x emissions on serpentine grasslands. However, there is sufficient evidence (albeit mostly circumstantial) of a connection between nitrogen deposition and infestation of serpentine communities by non-native grasses to indicate that the cumulative effects of anthropogenic nitrogen emissions on native serpentine grasslands are significant. Furthermore, ammonia (NH_3) released by catalytic converters and nitric acid vapor (HNO_3) formed by atmospheric chemical reactions involving NO_x emitted by vehicles also have the potential to fertilize serpentine grasslands[39]; the emission/creation of these compounds as a result of project-related traffic was not estimated by Illingworth & Rodkin, Inc., but could also contribute to some extent to cumulative impacts of nitrogen deposition. Because much of the project-related traffic approaching the proposed Gavilan College site from the south is expected to use Highway 101, it is likely that NO_x or ammonia emissions from project-related traffic will, to some unknown extent, reach serpentine grasslands, at least on Coyote Ridge immediately east of Highway 101.

The complex modeling of regional atmospheric dynamics required to estimate the amount of project-related nitrogen that is deposited in given areas of serpentine grassland, which would be the first step in determining the potential effects of the project on these grasslands, has not been performed. Furthermore, the aforementioned uncertainties would complicate the quantification of the project's contributions to nitrogen deposition impacts even if regional atmospheric modeling were performed.

Two methods were used to estimate the potential magnitude of the impacts of project-related emissions on serpentine grasslands, as follows:

[39] Weiss, Stuart, Creekside Center for Earth Observation, 3 June 2005 personal communication to Steve Rottenborn of H.T. Harvey & Associates.

(1) One potential method of determining the extent of serpentine grassland that is impacted by the project itself would be to multiply the proportional contribution of project-related nitrogen emissions to total regional emissions by the acreage of potentially affected serpentine grassland. Although the geographic distribution of sources that contribute to adverse effects on South Bay serpentine is unknown, it likely includes much of the Santa Clara County emissions, as well as emissions from portions of San Mateo and Alameda Counties, due to the prevailing northwesterly winds. Therefore, using project-related emissions as a proportion of Santa Clara County emissions would be a crude estimate of the project's contributions to regional emissions, possibly even over-estimating the project's proportional contribution. Although serpentine grassland is present in a few areas in San Mateo County to the northwest, the prevailing northwesterly winds would be unlikely to carry project-related emissions to serpentine grasslands to the northwest to any substantial extent. Therefore, for the purpose of impact assessment, only serpentine grasslands in Santa Clara County were considered to be potentially impacted by the project.

    According to the current bay checkerspot butterfly Critical Habitat designation and the estimates provided by the USFWS and CDFG, there are approximately 10,623 acres of serpentine grassland in the existing Critical Habitat units in Santa Clara County (which include the vast majority of high-quality and sensitive serpentine grasslands in the area that could potentially be affected by the project). As mentioned previously, predicted NO_x emissions generated by traffic associated with the project represent 0.015 percent of the 2006 emissions for Santa Clara County. Therefore, this project's relative contribution to the cumulative impact to serpentine grasslands from regional NO_x emissions, on an acreage basis would be 1.6 acres. Critical Habitat for the bay checkerspot butterfly has been recently re-proposed (USFWS 2007); however, revisions to the boundaries of some of the Critical Habitat units is unlikely to change this impact assessment substantially.

(2) The second method of determining this project's impacts to serpentine grassland is to base the impact assessment on the methodology used by the USFWS to determine the effects of emissions by the CVRP project on serpentine grassland. In the Biological Opinion, the USFWS stated that the CVRP project would result in the addition of approximately 572 kg/day, or 208,780 kg/yr, of NO_x at buildout. Compensatory mitigation for indirect impacts to serpentine habitat required by that Biological Opinion, which was at a ratio "3 times the affected acreage" (USFWS and CDFG 2007), included the preservation and management of 336 acres of serpentine grassland for the CVRP project; thus, the area of serpentine grassland determined to be indirectly impacted by the CVRP project was 112 acres. Because the 4,966 kg/yr estimated to be emitted by vehicles related to the Gavilan College Project represent 2.4 percent of the NO_x emissions by the CVRP project, the acreage of serpentine grassland potentially impacted by nitrogen emissions related to the Gavilan College Project can be estimated to be 2.7 acres (i.e., 2.4 percent of 112 acres).

It is not certain which of these two impact estimates is closer to an accurate assessment of the potential effects of the Gavilan College Project on serpentine grasslands. However, to take a conservative approach, and an approach that was considered adequate by the USFWS in its 2001 Biological Opinion for the CVRP project, it was assumed that the project's contributions to cumulative impacts to serpentine grasslands is equivalent to impacts to up to 2.7 acres of serpentine grassland.

Impact C-BIO-3: Indirect impacts may occur to approximately 2.7 acres of serpentine grasslands. **[Significant Cumulative Impact]**

4.7.2 Mitigation Measures

MM C-BIO-3: The following Serpentine Grassland Preservation and Management mitigation measures would reduce the potentially significant impacts to a less-than-significant level:

- The project's potential contribution to the cumulative impact of nitrogen emissions on serpentine grasslands will be mitigated by the acquisition and management of serpentine grassland in the Coyote Valley area. Given the conservative approach to impact assessment that has been taken, and the anticipated low magnitude of this project's contribution to actual, on-the-ground impacts to native serpentine grasslands, a one to one (1:1) impact:mitigation ratio is appropriate. The project will compensate for this impact by acquiring, via fee title or conservation easement, at least 2.7 acres of serpentine grassland near Coyote Valley and ensuring its management in perpetuity to benefit native serpentine plant and animal communities.

4.8 CUMULATIVE VISUAL AND AESTHETIC IMPACTS

As described in the CVSP EIR, the proposed CVSP project would result in significant cumulative visual and aesthetic impacts. The proposed College campus project will introduce large campus buildings (five story buildings), parking lots, athletic fields with bleachers, landscaping and a roadway onto a site that currently consists of cultivated fields and a pond. The 601,792 square feet of new building development will create a substantial change in the visual character of the site. The project will alter views of natural vistas, primarily from the valley floor. It is expected that the development will be visible from elsewhere on the valley floor, nearby hills, including Santa Teresa County Park and planned Bay Area Ridge Trail, and from vehicles on the surrounding roadway system. The proposed college campus project would obscure scenic views and alter scenic vistas, including views from designated rural scenic routes, Santa Teresa County Park, the local roadway system and planned trail corridors. This project would result in significant impacts to visual resources. There is no feasible mitigation to reduce this impact to a less than significant level.

Impact C-AES-4: The cumulative proposed and approved projects would result in cumulatively significant visual and aesthetic impacts, and the proposed Gavilan College Campus project would make a cumulatively considerable contribution towards this cumulative impact. **[Significant Cumulative Impact]**

4.10 CUMULATIVE CULTURAL RESOURCES IMPACTS

The project site is located in an area of moderate to high archaeological sensitivity. Numerous small and large size sites are present within several miles of the project site. A program of mechanical subsurface presence/absence testing for buried archaeological materials was completed on the site. No evidence of prehistoric archaeological occupation and or used of the project area was discovered at any point during the testing. There are no known historic resources on or adjacent to the project site.

Cumulative projects would be required to conform to state law and local agency polices for mitigation of impacts to archaeological resources. The CVSP concluded that the cumulative

development will not result in a cumulatively significant impact to archaeological resources, and the proposed college campus would not contribute towards a significant cumulative impact. **[Less Than Significant Cumulative Impact]**

4.11 CUMULATIVE GEOLOGY IMPACTS

All structures and occupants in the Bay Area are at risk of damage or injury from ground shaking in the event of an earthquake. The proposed project will include standard engineering techniques in conformance with the Uniform Building Code requirements for Seismic Zone 4 and design-level studies; this will reduce the impacts from geology and soils hazards on the project to a less than significant level. Not all geologic hazards can be eliminated even with design-level and site-specific geotechnical investigations and standard building practices. However, exposure to seismic hazards is a generally accepted part of living in the San Francisco Bay Area and, therefore, the measures The CVSP EIR also concluded that cumulative projects including CVSP would not result in significant geologic, hazard impacts. **[Less than Significant Cumulative Impact]**

4.13 CUMULATIVE UTILITIES IMPACTS

As described in the CVSP EIR, the proposed CVSP project would not result in significant utility impacts with the exception of significant cumulative solid waste impacts. CVSP would contribute to the accelerated consumption of the City of San José's landfill capacity and make it more difficult to maintain the long-term disposal capacity; therefore CVSP will result in a significant cumulative impact to solid waste systems. The proposed college campus project would contribute less than one percent compared to the CVSP project and would not make a cumulatively considerable contribution to landfill capacity. The proposed college campus sewage generation would be less than one percent of what CVSP generates and sends to the Water Pollution Control Plant for treatment. Therefore, the college would not result in a significant cumulative impact to sanitary sewer. **[Less Than Significant Cumulative Impact]**

4.14 CUMULATIVE ENERGY IMPACTS

The proposed CVSP EIR concluded it would make a considerable contribution toward energy usage and result in significant cumulative energy impacts. The proposed college campus would not result in a significant cumulative contribution to energy usage. It is estimated the college would generate less than one percent of the total amount generated by CVSP. **[Less Than Significant Cumulative Impact]**

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives that "will feasibly attain most of the basic objectives of the project but will avoid or substantially lessen any of the significant effects of the project." The purpose of this section is to determine whether there are alternatives of design, scope or location that will substantially lessen the significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives," or are more expensive. [Section 15126.6]

In order to comply with the purposes of CEQA, it is important to identify alternatives that reduce the significant impacts that are anticipated to occur if the project is implemented and to try to meet as many of the project's objectives as possible. The Guidelines emphasize a common sense approach -- the alternatives should be reasonable, should "foster informed decision making and public participation," and should focus on alternatives that avoid or substantially lessen the significant impacts.

The possible alternatives to the project are those that the Gavilan Community College District can select. The District possible options, and therefore alternatives to the project are:

1) Abandon the project; this constitutes a "no projective" alternative;

2) Reduce the scale of the project, either the size of the site or the number of students or both; this constitutes the "reduced scale" alternative

3) Select another site for the project.

The discussion of alternatives should include enough information to allow a meaningful evaluation and comparison with the proposed project. The CEQA Guidelines state that if an alternative would cause one or more additional impacts, compared to the proposed project, the discussion should identify the additional impact, but in less detail than the significant effects of the proposed project.

The three critical factors to consider in selecting and evaluating alternatives are, (1) the significant impacts from the proposed project that could be reduced or avoided by an alternative, (2) the project's objectives, and (3) the feasibility of the alternatives available. Each of these factors is discussed below

Significant Impacts of the Project

As discussed above, the CEQA Guidelines advise that the alternatives analysis in an EIR should be limited to alternatives that would avoid or substantially lessen any of the significant effects of the project and would achieve most of the project objectives.

The significant impacts of the project include:

- air quality – regional air quality impacts
- biological resources – California tiger salamander habitat, Burrowing Owls, wetlands
- cultural resources – utility trenching
- energy

- flooding, hydrology and water quality
- noise
- transportation
- visual and aesthetics

All of the impacts listed above would be reduced to a less than significant levels with mitigation measures included in the proposed project except air quality, energy, global climate change, and transportation. Alternatives required by CEQA to be considered should be capable of avoiding or reducing some or all of the significant impacts listed above.

Objectives of the Project

While CEQA does not require that alternatives must be capable of meeting all the project objectives, their ability to meet most of the objectives is relevant to their consideration. The following represent the District's objectives for the proposed project:

The primary objective of the Gavilan Coyote Campus is to develop a 10,000 (full-time equivalent) student campus in Coyote Valley to serve the existing and future needs of the population within the District's boundaries. Gavilan Joint Community College District has experienced two years (2006 – 2007) of unprecedented growth; 13 percent last year followed by 11 percent so far this current semester (fall 2007). There are several specific objectives to developing the Coyote Campus listed below:

1) Provide continuing college educational curriculum and services to the population of the Gavilan Joint Community College District that includes lecture halls, laboratories, administration facilities, and athletic fields.

2) Establish a campus within the northern sector of the Gavilan District to serve both existing and future students;

3) Recapture more than 1,800 existing Gavilan District students that currently drive past the proposed site and travel to other community college districts located to the north including West Valley-Mission, San José-Evergreen, and Foothill-DeAnza, College District. A part of this objective is to reduce travel distances and travel times for students and also reduce the associated fuel energy consumption and air pollution emissions.

A specific objective of the project's first phase is to establish a learning center that will be approved by the State and to provide a police academy facility to train law enforcement officers.

Feasibility of Alternatives

CEQA, the CEQA Guidelines, and case law on the subject have found that feasibility can be based on a wide range of factors and influences. CEQA's general definition of feasibility is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." Among the factors that may be taken into account in considering the feasibility of an alternative are "…site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control, or otherwise

have access to the alternative site…" [Section 15126.6 (f)(1)].

The feasibility of the project from the District's cost perspective cannot exceed a total cost of $27,000,000, including the first phase buildings and improvements. The Gavilan Community College District initially pursued establishment of the project on an 80-acre site, which is the typical campus size for a 10,000 student community college. The cost of land was found to be prohibitive; therefore, the District reduced the site size so that there would be sufficient funds to construct the initial buildings and complete site improvements. The District negotiated on three parcels of property, two of which were within San Jose Urban Service Boundary. The District selected the least costly site in order to have funds to construct the first phase of the campus. The District negotiated a price of approximately 18 million dollars for the 55-acre site. This price was approximately 60% less than other property negotiated by the District. Other alternative locations that are within San Jose's Urban Service Area are expected to be in a price range that is double that of the project site or greater. Even though alternative locations are not feasible from a cost perspective they are considered in this alternatives discussion, for the purpose of comparing the environmental consequences.

5.1 NO PROJECT ALTERNATIVE

The CEQA Guidelines require an EIR to include a "No Project" alternative, which addresses both "the existing conditions, as well as what will be reasonably expected to occur in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure and community services."

The No Project alternative consists of a continuation of the existing agricultural cultivation of the site. As long as the property owner continues the agricultural operation, the existing conditions could continue.

The project site is located within the City of San José corporate limits and within the Urban Service Boundary and is designated for *campus industrial* land use. The property is currently zoned for Industrial Campus use with *A(PD) - Agricultural (Planned Development) zoning designation*. The specific Planned Development zoning is for campus industrial development. Within the context of the existing land use designation and zoning the site could be developed with between 500,000 and 900,000 square feet of Campus industrial uses. This development would require construction of considerable infrastructure, including roadways, drainage facilities and utility extension at a minimum. There would also be greater traffic impacts with an industrial campus development. The campus industrial development of the site is expected to require additional approvals.

It should be noted that the project site was included in the Coyote Valley Specific Plan project. The project site was designated as workplace land uses, with a roadway dividing the site and an overlay of a potential Gavilan College. This project has not been approved and the environmental review is ongoing, such as planned development permits and permits for filling of wetlands.

The No Project Alternative would not meet any of the objectives of the project.

5.1.1 Comparison of Environmental Impacts

The continued operation of agricultural uses on the project site would not result in any significant impacts, as defined by CEQA.[40] Impacts from the continued operation of the site would be those that occur from the conditions reflected throughout this EIR in the sections entitled "Existing Setting". The No Project Alternative (assuming the continued use of the existing agricultural uses) would avoid the significant environmental impacts of the project, however, it would also fail to implement several environmental benefits that result from the project. In particular, the No Project Alternative would not recapture more than 1,800 existing Gavilan District students that currently drive past the proposed site and travel to other community college districts located to the north and would not reduce travel distances times for students and reduce the associated fuel energy consumption and air pollution emissions. The project would reduce the daily miles traveled of the proposed college population by approximately 27,000 miles.

5.2 REDUCED SCALE ALTERNATIVE

The Reduced Scale Alternative consists of a 6,000 full-time equivalent (FTE) students compared to the proposed 10,000 FTE. The Reduced Scale Alternative campus would continue to be on the same property, but the 3.2 acres of seasonal wetland area (impacted by the project) could potentially be avoided, the core campus buildings would be less than five stories, and parking would be reduced in proportion to the reduced building size and student count. Most of the site would be filled as proposed by the project except for the detention basin. The seasonal wetland adjacent to the project boundary would be excluded from disturbance and the toe of the project fill extended to near their edge. The seasonal wetland located near the south central sector of the site would be left undisturbed but fill would completely surround it with surface drainage directed away from the pond. The existing pond on the site would be preserved and incorporated into the campus similar to what is proposed by the project.

5.2.1 Comparison of Environmental Impacts

The extent to which the Reduced Scale Alternative might reasonably be expected to result in lesser project impacts is discussed below for each of the areas of significant impact for the proposed project.

The visual and aesthetic impacts would be slightly less than the proposed project, but would still be significant since the cultivated fields would be replaced by buildings, parking and athletic fields.

The project would still require 450,000 cubic yards of fill to be imported during construction and thus would result in similar energy impacts compared to the proposed project related to fuel consumption.

Impacts related to hydrology, water quality and flooding would be similar to the proposed project. The amount of impervious surfaces would be slightly reduced since the 3.2 acres of seasonal wetland would be avoided. Approximately half of the seasonal wetland area is located adjacent to the

[40] Section 15126.6 (e) (3) (B) of the CEQA Guidelines state the following, "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved."

perimeter of the site and these areas would be avoided. The reduced scale alternative would include on-site detention. The reduced scale alternative would still increase the upstream water surface in the flood plain and the floodway during the 100 year flood. This alternative would include on-site detention and water quality impacts and mitigations would be the same as that of the project.

Noise resulting from the reduced scale alternative would be similar to that from the proposed project.

Possible impacts to nesting raptors and Burrowing Owls would be similar to those from the proposed project. Like the proposed project, preconstruction surveys and implementation of identified mitigation measures would avoid significant impacts to nesting raptors and Burrowing Owls. Impacts to California tiger salamanders would be similar to the proposed project. Seasonal wetland habitat impacts may be slightly less than the proposed project but would likely still require implementation of identified project mitigation measures.

By reducing the campus size to 6,000 FTE students, the significant unavoidable traffic and air quality impacts would be eliminated.

5.2.2 Relationship to Project Objectives

The Reduced Scale Alternative would not fully meet the primary objective to develop a 10,000 (full-time equivalent) student campus in Coyote Valley to serve the existing and future needs of the District's population. It would meet the all other project objectives.

5.2.3 Conclusion

While this alternative is feasible from a land use and planning standpoint and would establish a campus within the northern sector of the Gavilan District to serve both existing and future students, it would not fully meet the District's goal of creating a 10,000 FTE student campus. This alternative would reduce travel distances and travel times for students and also reduce the associated fuel energy consumption and air pollution emissions compared to the No Project Alternative, however, it would not provide as much student capacity as compared to the proposed project.

5.3 LOCATION ALTERNATIVE

Site Selection Process

CEQA Guidelines encourage consideration of an alternative site when significant effects of the project might be avoided or substantially lessened. Only locations that would avoid or substantially lessened any of the significant effects of the project and meet most of the project objectives need be considered for inclusion in an EIR.

In order to identify alternative sites that might reasonably be considered to "feasibly accomplish most of the basic purposes of the project," and would also mitigate some or all of the significant impacts of the project, it was assumed that such a site would ideally have the following characteristics:

1. Approximately 50 acres in size;
2. Within the Urban Service Area of the District's northern sector boundary
3. Adequately separated from sensitive biological habitats and habitat for special status species;
4. Available for development or redevelopment; and
5. Located outside a FEMA 100-year flood zone

6. Located on a geologically stable site (i.e., a site not subject to high levels of liquefaction or differential settlement).

The following two locations were identified and evaluated based on the selected characteristics (refer to Figure 17). It should be noted that other locations were evaluated by the District, but they were located outside the Urban Service Area (USA) and were eliminated from further review due to the additional constraints and impacts associated with extending utilities and services as well as changing the USA. As explained previously in the "Feasibility of Alternatives" subsection, the land cost of the alternative sites are more than double the cost of the project site and, therefore, are not financially feasible. Nevertheless, the alternatives sites are described here for comparison purposes.

Site 1: A 50-acre site located along the north side of Bailey Avenue east of Santa Teresa Boulevard. This undeveloped site is part of a 688-acre property approved for industrial/office/research referred to as the Coyote Valley Research Park. This development, approved in 2001, has completed some infrastructure improvements but has not been developed further. This alternative would require on-site detention that would discharge to Fisher Creek similar to the proposed project.

Site 2: A 50-acre site location along the south side of Bailey Avenue east of Santa Teresa Boulevard. This site is undeveloped agricultural land that is currently not approved for development. This alternative would require on-site detention that would discharge to Fisher Creek similar to the proposed project.

5.3.1 Comparison of Environmental Impacts

Developing the college campus on either of alternative sites would have similar visual impacts to the proposed project by replacing the views of agricultural open space with four and five story buildings and urban uses.

The project's wetland impacts would be avoided by developing the college campus on either of the alternative sites since no wetlands are present or since they contain no wetlands. Similarly, the project's impact upon California tiger salamanders habitat would be avoided because neither of the alternative sites are considered potential habitat for this species. Possible impacts to Burrowing Owls would be similar to those of the proposed project on each of the alternative sites because there is a similar potential for Burrowing Owls to occupy the alternative sites. The likelihood of impacts to other nesting raptors would be similar to the proposed project on the alternative sites if the specific property selected had trees 15 to 20 feet or taller. Like the proposed project, preconstruction surveys and implementation of identified mitigation measures would avoid significant impacts to nesting raptors and Burrowing Owls.

Flooding, water quality and drainage impacts of the proposed project could be avoided by developing the college campus on either of the alternatives sites. Both of the alternatives sites are located outside of a floodway and flood plain and, therefore, campus development would not displace flood waters elevating flood water surface, nor would the campus be subject to flooding. Sufficient on-site storm water runoff quality measures would be incorporated in the design on the alternative site so that the water quality impacts would be comparable to the proposed project.

Since these sites are not located within a floodway or flood plain, the site would not require 450,000 cubic yards of fill to be imported during construction and thus would not result in significant energy impacts related to fuel consumption.

Development of the college campus on either of the alternative sites would generate the same traffic as the proposed project and result in the same traffic impacts which are the addition of traffic to congested segments of the US 101 Freeway.

The air quality impacts of locating the college campus on either alternative site would create impacts comparable to the proposed project site.

Noise generated would be similar to that from the proposed project. There are residential uses along Santa Teresa Boulevard, so there would be sensitive receptors nearby. The alternative sites would need to mitigate for any increased noise levels that could impact sensitive receptors.

5.3.2 Relationship to Project Objectives

These alternative sites would meet all of the District's objectives except that the cost of the alternative site lands are beyond the project fund and are, therefore, financially not feasible.

5.3.3 Conclusion

Either of the alternatives sites would meet the District's objectives and would lessen the environmental impacts compared to the proposed project site. While these sites will reduce environmental impacts and meet project objectives, these sites were not financially feasible for the District. A typical Gavilan Joint Community College campus is approximately 80 acres in size. Due to the high price of land in Coyote Valley, the District was only able to acquire approximately 55 acres. In actual fact, the District contracted to purchase 34+ acres and the property seller offered to subsequently donate an additional 20 acres. With a smaller 55 acre site, the District must have a more compact campus with four and five story buildings. The smaller 55 acre site also allows for less environmental impacts such as loss of agricultural lands, displacement of seasonal wetlands, and loss of potential California Tiger Salamander habitat.

5.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussions, the environmentally superior alternative is the No Project Alternative, because all of the project's significant environmental impacts would be avoided if no new construction occurred under this Alternative. CEQA Guidelines Section 15126.6(e)(2), however, states that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Either of the Location Alternatives would be the environmentally superior alternative to the proposed project but is not financially feasible. Therefore, the alternative that is both financially feasible and environmentally feasible is the reduced scale alternative. The reduced scale alternative would not accomplish all the objectives of the project since it would only accommodate 6,000 students rather than the project's objective of 10,000 students.

A summary of the environmental impacts of the proposed project and the project alternatives is provided in Table 23.

Table 23:
Matrix Comparison of Project Alternative Impacts

Impacts	Proposed Project	No Project Alternative	Reduce Scale Alternative	Location Alternatives*
Regional Air Quality	SU	**NI**	**SM**	SU
Biological Resources				
California tiger salamander habitat	SM	**NI**	SM	**NI**
Burrowing Owls	SM	**NI**	SM	SM
Wetlands	SM	**NI**	SM	**NI**
Cultural Resources	SM	**NI**	SM	SM
Energy	SU	**NI**	SU	**LTS**
Hydrology and Flooding	SM	**NI**	SM	**NI**
Water quality	SM	**NI**	SM	SM
Noise	SM	**NI**	SM	SM
Transportation	SU	**NI**	**LTS**	SU
Visual and Aesthetics	SU	**NI**	SU	SU
Meets Project Objectives	YES	NONE	PARTIALLY	YES*

Notes:
SM = Significant, but can be mitigated to a Less Than Significant Level
SU = Significant and unavoidable impact
LTS = Less than significant impact
NI = No Impact
* This Alternative is not financially feasible.
Bold text indicates environmentally superior to the proposed project.

6.0 GROWTH INDUCING IMPACTS

The *CEQA Guidelines* [Section 15126.2(d)] requires that an EIR discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in a surrounding area. Projects which could remove obstacles to population growth (such as a major public service expansion) must also be considered in this discussion.

The project site is located within the Urban Growth Boundary of the City of San José and would not result in an expansion of the Urban Service Area or the pressure to expand beyond the City's existing corporate limits. The college campus would be located across Bailey Avenue from the existing IBM Campus which was developed more than 30 years ago. The project would, therefore, not introduce urban development into north Coyote Valley rather it would be a continuation of established patterns of land use and development.

The proposed community college campus is intended to accommodate existing and future population growth. In general, community colleges serve growth and are not a stimulus or foster growth. The project does not include residential development, and would not result in direct population growth. It would result in new employment at the facility, with the addition of approximately 505 full-time employees including faculty and staff to accommodate the new college. These jobs are generally considered in the service sector or secondary jobs such as instructors, administrators, janitors, gardeners and security personnel. Typically population and economic growth is associated with primary jobs such as industrial manufacturing or commerce that exports products or services from the area and bringing in revenue. The project does not include creation of primary jobs and would not be result in economic growth.

Based on the *Association of Bay Area Governments Projections 2007*, 402,290 persons are employed in the City of San José and 3,449,640 persons in the nine San Francisco Bay Area counties. The anticipated incremental increase in employment of 505 persons on this site would not be a substantial increase in employment in the San José area that would indirectly cause significant environmental effects.

The project includes extension of utilities along Bailey Avenue to the site. These utilities that would be extended are a potable water line, a sanitary sewer line, natural gas line and telephone line. The extension of these utilities would not remove an existing obstacle to development and growth since all of the service are currently available near the site and most of the property adjacent to the extended utility line extensions is limited in area and substantially constrained by topography (slopes like Spreckles Hill) or drainage and flooding.

One of CEQA's primary purposes in addressing "growth inducing impacts" is to identify the environmental impacts or consequences of growth that results from implementing a project. Since the project would not result in economic or population growth not there are no adverse environmental consequences foreseen to result from the project. The proposed project, therefore, would not result in significant growth inducing impacts.

Conclusion: The project would provide employment for 505 new secondary or service jobs but it would not directly result in population or economic growth. No new growth is expected to result from the extension of utilities to serve the project.

7.0 SIGNIFICANT UNAVOIDABLE IMPACTS

If the project is implemented, the following significant unavoidable environmental impacts will occur:

- Significant air quality impacts
- Significant transportation impacts
- Significant visual and aesthetic impacts
- Significant energy impacts
- Significant cumulative global climate change impacts

8.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

This section was prepared pursuant to CEQA Guidelines Section 15126.2(c), which requires a discussion of the significant irreversible changes that would result from the implementation of a proposed project. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project, and irretrievable commitments of resources.

Construction and operation of the proposed project will require the use and consumption of nonrenewable resources, such as steel and other metals used to construct the campus buildings. Renewable resources, such as lumber and other wood byproducts, will also be used. Unlike renewable resources, nonrenewable resources cannot be regenerated over time. Nonrenewable resources include fossil fuels and metals.

Energy will be consumed during both construction and operation of the proposed project. The construction phase would require the use of nonrenewable construction material, such as concrete, metals, and plastics. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation of building materials, preparation of the site, and construction of the campus buildings. The operational phase will consume energy for multiple purposes including lighting and electronics. Energy in the form of fossil fuels will be used to fuel vehicles traveling to and from the area. Given the unique purpose of the project, to develop a new college campus which would reduce travel distances for some users, it would not use fuel or energy in a wasteful manner.

9.0 REFERENCES

Association of Bay Area Governments, Projections 2007, December 2006.

California Energy Commission, 2005 Integrated Energy Policy Report. November 2005, Pages E-2, 7, 38-39, 46

California Independent System Operator, http://www.caiso.com/183e/183ebd4414ad0.pdf

California Environmental Quality Act, CEQA Guidelines, 2007

City of San José, San José 2020 General Plan, April 24, 2007

City of San José, Coyote Valley Specific Plan Draft EIR, March 2007.

Hexagon Transportation Consultants, Inc., Transportation Impact Analysis, May 2007

H.T. Harvey & Associates, Biological Evaluation, June 2007

Illingworth & Rodkin, Inc., Air Quality Analysis, August 2007

Illingworth & Rodkin, Inc., Environmental Noise Assessment, July 2007

Santa Clara Valley Habitat Conservation Plan http://www.scvhabitatplan.org/www/site/alias__default/home/1/home.aspx, June 2007.

Strategic Engineering and Science, Geologic Hazards Evaluation Services Gavilan College, Coyote Valley, California, May 8, 2007.

Strategic Engineering and Science, Phase I and II Environmental Site Assessment, Gavilan College, Coyote Valley Campus, California, July 23, 2007.

10.0 LEAD AGENCY AND CONSULTANTS

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