5.1 ANALYSIS REQUIREMENT

CEQA GUIDELINES

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in relation with the effects of past projects, the effects of other current projects and the effects of probable future projects. As defined in CEQA Guidelines Section 15355, cumulative impacts refer to two or more individual effects which, when considered together, are substantial or which compound or increase other environmental impacts. A cumulative impact occurs from:

> ...the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

(1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency;

(2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, and

(3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider that effect significant, but shall

briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. CEQA Guidelines Section 15130(a) also states the following with regard to cumulative impacts that are not significant:

- As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts which do not result in part from the project evaluated in the EIR (Section 15130 (a)(1)).

- When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant (Section 15130(a)(2)).

- An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of mitigation measure or measures designed to alleviate the cumulative impact. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant (Section 15130(a)(3)).

CEQA Guidelines Section 15130(b)(1) requires the use of one method of cumulative analysis from two choices offered: a list of known past, present, and probable future projects in the area or a summary of projections contained in adopted municipal plans and planning documents. For the purposes of cumulative impact analysis for this Draft EIR, the list method is used. Relative to this method, the CEQA Guidelines state the following:

1) When utilizing a list…factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.

2) "Probable future projects" may be limited to those projects requiring an agency approval for an application which has been received at the time the notice of preparation is released, unless abandoned by the applicant; projects included in an adopted capital improvements program, general plan, regional transportation plan, or other similar plan; projects included in a summary of projections of projects (or development areas designated) in a general plan or a similar plan; projects anticipated as later phase of a previously approved project (e.g., subdivision); or those public agency projects for which money has been budgeted.

3) Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used (Section 15130(b)(1)(A)1, 2, 3).

5.2 CUMULATIVE IMPACT ANALYSIS AND ASSUMPTIONS

Based on project conditions and impacts, assessment of the project's contribution to cumulative impacts was provided for each of the topic areas addressed in **Section 3.0, Environmental Setting, Impacts, and Mitigation Measures**. Using the list method identified above, the impacts associated with that growth were projected. The cumulative area projects evaluated, in addition to the proposed project, are listed in **Table 5-1**. This list is considered conservatively broad, as several projects have been indefinitely stalled due to current economic conditions and/or continuing legal challenges.

TABLE 5-1
CUMULATIVE PROJECTS

JURISDICTION/PROJECT	LAND USES	UNITS
APPROVED PROJECTS		
CITY OF MARINA		
Marina Heights Subdivision	Residential	1,050 DU
CSUMB North Campus Housing	Housing	492 DU
CSUMB Master Plan 2010	Education	1,939 Students
Reservation Road Condominiums	Residential	14 DU
Paddon Place Subdivisions	Residential	15 DU
249 Carmel	Residential	10 DU
Crescent/Carmel Subdivision	Residential	14 DU
Hotel – 323 Reservation Road	Hotel	39 DU
Dunes at Monterey Bay (University Villages) – Phase 1	Residential Retail Multiple Use Office Research Parks/Open Space	221 Single-Family Detached Housing DU 195 Town Home/Condominium DU 108 Apartment DU 672,000 Sq. Ft. Retail 67,500 Sq. Ft. Restaurants 10,000 Sq. Ft. Office 81,300 Sq. Ft. Government Office 55,300 Sq. Ft. Church
Marina Landing Redevelopment	Commercial	300,000 Sq. Ft.
3200 Seaside	Residential	29 DU
3110 Seacrest	Residential	7 DU
MPC Satellite Campus	Education	700 Students
FORA Business Park	Business Park	43,381 Sq. Ft
MST Transit Station	Residential, Retail, Transit Station	30 Apartment DU 25, 000 Sq. Ft. Retail Bus Frequency 10 buses/hr

JURISDICTION/PROJECT	LAND USES	UNITS
Cypress Knolls	Residential, Park, and Facilities	596 Senior Adult Housing DU 60 Assisted Living DU 116 Apartment DU 20,000 Sq. Ft. Club Facility 17.60 Acres City Park 6,000 Sq. Ft. Senior Center
Marina Station	Residential Retail Restaurant Office Light Industrial	473 Apartment DU 887 Single-Family DU 39,900 Sq. Ft. 20,100 Sq. Ft. 143,808 Sq. Ft. 651,624 Sq. Ft.
CITY OF SEASIDE		
Seaside Resort	Hotel, Timeshares, and Residential Units	330-RoomHotel 170 Timeshare Units 125 Clubhouse Units 100 Affordable/Workforce DU
City Center	Commercial/Retail	24,674 Sq. Ft. Restaurant 4,000 Sq. Ft. Bank 15,326 Sq. Ft. Retail Space
MPC Satellite Campus	Education	400 Students
The Pointe	Residential Commercial/Retail	6 Condo DU 3,000 Sq. Ft.
Lexus Service Center	Commercial	5,123 Sq. Ft.
Georis Building	Commercial	3,978 Sq. Ft.
Dentistry for Children	Office	4,835 Sq. Ft.
First National Bank	Office	4,939 Sq. Ft.
Ord Military Housing (RCI)	Residential Retail Recreation	769 DU 99,400 Sq. Ft. 23,000 Sq. Ft.
CITY OF SAND CITY		
Costco Expansion	Commercial/Retail	16,795 Sq. Ft.
Design Center	Residential and Commercial /Retail	30 Apartment DU 20,000 Sq. Ft. Commercial/Retail 20,000 Sq. Ft. Office
CITY OF DEL REY OAKS		
Safeway Supermarket	Commercial/Retail	54,000 Sq. Ft.
CITY OF MONTEREY		
Ryan Ranch Business Park CHOMP Medical Offices 6 & 8 Lower Ragsdale Drive	Office	 138,380 Sq Ft. 63,985 Sq Ft.
Del Monte Beach Tract 2 Re-subdivision	Residential	17 Units
St. John the Baptist Greek Orthodox Church	Church	8,300 Sq. Ft.
Calvary Chapel Expansion	Church	25,932 Sq. Ft.

JURISDICTION/PROJECT	LAND USES	UNITS
CITY OF SALINAS		
Tynan Village Mixed-Use Development	Housing Commercial/Retail	171 Apartment DU 13,250 Sq. Ft. Commercial/Retail Space
Hartnell College Expansion	Education	3,000 Students
Monte Bella Subdivision	Residential	550 DU
UNINCORPORATED MONTEREY COUNTY		
CSUMB East Campus Housing	Residential	125 DU
East Garrison	Residential Commercial Institutional Artist Studios Parks & Open Space	1,470 DU 75,000 Sq. Ft. 11,000 Sq. Ft. 100,000 Sq. Ft. 50,000 Sq. Ft.
Monterra Ranch	Residential	151 DU
Pasadera	Residential	43 DU
Harper 14 Lots of Record	Residential	14 DU
Oaks Subdivision	Residential	11 DU
Laguna Seca Office Park -York Road Office Building	Office	16,388 Sq. Ft.
Laguna Seca Office Park - Jessen Office Building	Office	20,000 Sq. Ft.
Tanimura Family Residential	Residential	73 DU
PROJECTS PENDING APPROVAL		
CITY OF MARINA		
K–8 School	Education	850 Students
MBEST	Office Park Light Industrial	675,673 Sq. Ft. 326,116 Sq. Ft.
CSUMB Master Plan 2010-2025	Education	6,389 Students
Dunes at Monterey Bay (University Villages) Phases 2 & 3	Residential Multiple Use Retail Office Research Parks/Open Space	393 Single-Family Detached DU 320 Town Home/Condo DU 353,830 Sq. Ft. Retail 15,000 Sq. Ft. Restaurants 1,289,721 Sq. Ft. Offices 7.8 Acres City Park 80,000 Sq. Ft. Community Buildings Soccer Complex (4 fields)
CITY OF SEASIDE		
Ord Military Housing	Residential and Commercial/ Retail	56,400 Sq. Ft. Drumstick Parcel 40,000 Sq. Ft. Light Fighter Parcel 130 Townhome DU
Main Gate Shopping Center (The Strand at Seaside)	Commercial/Retail/Hotel	650,000 Sq. Ft. Retail 250-Room Hotel
Del Monte Hotel	Hotel	98 Rooms
Seaside Auto Center Redevelopment	Commercial	Beautification Project No additional dwelling units or Sq. Ft.
Plaza de Espritu (Commercial/Retail)	Commercial/Retail	4,709 Sq. Ft.
Laguna Grande Plaza (Commercial/Retail)	Commercial/Retail	6,491 Sq. Ft.

JURISDICTION/PROJECT	LAND USES	UNITS
Diaz Restaurants	Restaurant	2,000 Sq. Ft.
Ahmed Ali Retail Store	Commercial/Retail	6,464 Sq. Ft.
West Broadway Corridor	Retail Commercial Professional Office Multi Family Residential High-Turnover Sit-Down Restaurant	50,000 Sq. Ft. 50,000 Sq. Ft. 100 DU 220 Seats
CITY OF SAND CITY		
Monterey Bay Shores Hotel	Hotel	100 Rooms
Collections on Monterey Bay	Hotel	100 Rooms
South of Tioga	Residential, Commercial/ Retail, and Office	30 Apartment DU 20,000 Sq. Ft. Commercial/Retail 20,000 Sq. Ft. Office
CITY OF SALINAS		
Salinas Ag-Industrial Center	Industrial	257 Acres
CITY OF DEL REY OAKS		
The Resort at Del Rey Oaks	Golf, Clubhouse & Driving Range Hotels Timeshares Residential Commercial/Retail Office	152.8 Acres 22.4 Acres 7.3 Acres 31.8 Acres 2.2 Acres 16.8 Acres
CITY OF MONTEREY		
Ryan Ranch Business Park 101 Wilson Road 1 Swain Court	 Medical Offices Office/Industrial Research	 26, 453 Sq. Ft. 127, 412 Sq. ft.
2711 Garden Road (Office)	Office	23,080 Sq. Ft.
UNINCORPORATED MONTEREY COUNTY		
Monterey Horse Park	Recreation	16 DU 37 Employees 20 Trainers 80 Daily Visitors 1Event (3-Day Event)
Corral de Tierra Shopping Center	Mixed Use	12,338 Sq. Ft. 114,185 Sq. Ft.
Wang Subdivision	Rural Residential	23 Single-Family DU 6 Inclusionary DU
Harper Canyon/Encina Hills	Rural Residential	17 Single-Family DU
Laguna Seca Villas	Residential	104 DU
CARMEL VALLEY		
September Ranch	Residential	110 DU
Rancho Canada	Residential	281 DU

Source: HMM 2010

For each section, the discussion of cumulative impacts of these projects follows direct project impacts and mitigation measures. Throughout the cumulative analysis presented in this Draft EIR, the appropriate cumulative context is described and considered in light of the types of impacts created by the project. The cumulative impacts summarized below are also presented in each of the Environmental Analysis subsections of the Draft EIR (see **Sections 3.1** through **3.12**). Each cumulative impact is determined to have one of the following levels of significance: **less than significant**, **potentially significant**, or **significant and unavoidable**, thus requiring a Statement of Overriding Considerations.

5.3 DISCUSSION OF CUMULATIVE IMPACTS

AESTHETICS AND VISUAL SENSITIVITY

Cumulative Degradation of Visual Character

Impact 3.1-8 The proposed project, in combination with cumulative development projects, would add to the gradual urbanization of the project site and vicinity, resulting in a visual change in this rural setting. However, policies in the *Monterey County General Plan* and the *Toro Area Plan* would limit development in the vicinity of the project site and impose strict design guidelines to ensure limited impact of visual character. Therefore, the proposed project's contribution to the cumulative degradation of visual character in the region would be considered a **less than significant cumulative impact.**

The proposed project, in combination with other cumulative development, would continue to urbanize the State Route 68 corridor, a state scenic highway. The overall change in the visual character of the project area from primarily undeveloped grazing land to approximately 212 residential units on 870 acres would result in a permanent, but visually subtle, change to the area. Although the proposed subdivision will increase the residential development in the area, the development would be consistent with the low-density residential development designation of the land, with a density of 4.10 acres/dwelling unit (based on 212 units on 870 acres and an average lot size of 1.22 acres). Approximately 600 acres (69 percent) of the project site will be designated as open space, most of which is located in the most visually sensitive portions of the site.

Policies in the *Monterey County General Plan* and the *Toro Area Plan* and mitigation measures **MM 3.1-1a** through **MM 3.1-1c,** and **MM 3.1-6** would limit development in the vicinity of the project site and impose strict design guidelines to ensure limited impact of visual character. Therefore, the proposed project's contribution to the cumulative degradation of visual character in the region would be considered a **less than significant cumulative impact**. No additional mitigation measures are necessary.

AIR QUALITY

Cumulative Regional Air Quality Impacts

Impact 3.2-6 Development of the proposed project combined with other reasonably foreseeable projects in the project vicinity, would contribute to increased air quality emission within NCCAB, which may result in the generation of emissions that would be inconsistent with the Monterey Bay Region Air Quality Management Plan. However, the Association of Monterey Bay Area Governments (AMBAG) made an evaluation of emission forecasts based on population projection and determined that the proposed project is consistent with the Monterey Bay Region Air Quality Management Plan. Therefore, this would be considered a **less than significant cumulative impact.**

In accordance with MBUAPCD *CEQA Air Quality Guidelines*, project emissions which are not consistent with the AQMP would be considered to have a cumulative regional air quality impact. As discussed previously, consistency of population-related projects with the AQMP is assessed by comparing the projected population growth associated with the project to population forecasts adopted by AMBAG. These population projections are used to generate emission forecasts upon which the AQMP is based.

A consistency evaluation of the proposed project was conducted by AMBAG on November 16, 2006 (AMBAG 2006) and reconfirmed on August 20, 2009 (AMBAG 2009). Based on the evaluation conducted by AMBAG, the proposed project was deemed consistent with the 2008 regional forecasts and the AQMP. In addition, as noted in **Impact 3.2-2**, long-term operational emissions associated with the proposed project would not exceed MBUAPCD significance thresholds. For these reasons, this would be considered a **less than significant impact.**

Cumulative Local Air Quality Impacts

Impact 3.2-7 Development of the proposed project, combined with other reasonably foreseeable projects in the project vicinity, would contribute to increased local air quality emissions. However, implementation of the proposed project would not result in the long-term operation of any major stationary sources of odors or TACs, and no major existing sources of emissions were identified in the project vicinity. In addition, increases in mobile-source emissions would not result in a significant contribution to either near-term or future cumulative localized concentrations of CO that would exceed applicable standards. Therefore, this would be considered a **less than significant cumulative impact.**

As discussed in Impacts 3.2-4 and 3.2-5, implementation of the proposed project would not result in the long-term operation of any major stationary sources of odors or TACs, and no major existing sources of emissions were identified in the project vicinity. In addition, as discussed in Impact 3.2-3, increases in mobile-source emissions would not result in a

significant contribution to either near-term or future cumulative localized concentrations of CO that would exceed applicable standards. Therefore, the proposed project's cumulative contribution to local air quality impacts would be considered less than significant.

BIOLOGICAL RESOURCES

Cumulative Effect on Special-Status Species and Sensitive Habitats

Impact 3.3-9 Buildout of the proposed project, combined with buildout of reasonably foreseeable development in the vicinity of the project site, would result in disturbance to special-status species and sensitive habitats throughout the region. However, implementation of mitigation measures presented within this section, **MM 3.3-1** through **MM 3.3-8c**, would reduce the overall contribution to cumulative biological resource impacts resulting from buildout of the proposed project. Therefore, this would be considered a **less than significant cumulative impact.**

As presented in the impact discussions above (see Impacts 3.3-1 through 3.3-8), implementation of the proposed project would result in a disturbance to special-status species and sensitive habitats. When these impacts are combined with biological resources impacts associated with reasonably foreseeable development in the vicinity of the project site, the disturbance to special-status species and sensitive habitats is likely to be compounded and considered a cumulative impact. However, implementation of mitigation measures presented within this section, **MM 3.3-1** through **MM 3.3-8c**, would reduce the overall contribution to cumulative biological resource impacts resulting from buildout of the proposed project. Therefore, the proposed project's contributions to the cumulative loss and/or restriction of biological resources in the region are considered **less than significant**.

CULTURAL RESOURCES

Cumulative Impact on Cultural Resources

Impact 3.4-4 Implementation of the proposed project, when combined with reasonably foreseeable similar development in the vicinity and Monterey County, could contribute incrementally to the loss of the region's important cultural assets. Loss of resources at the Ferrini Ranch property could be considered a significant contributor to cumulative loss of like prehistoric resources in this portion of Monterey County. This would be considered a **potentially significant cumulative impact.**

The limited and fragmented distribution of cultural resources in the county, together with their fragility, makes these resources particularly sensitive to incremental loss associated with land use changes, development, and time. The proposed project, when combined with other proposed, planned, reasonably foreseeable, and approved projects in Monterey County, could impact known and unknown cultural resources and paleontological

resources associated with Native American use and occupation of the area, as well as historic resources associated with EuroAmerican settlement, farming, and economic development.

Implementation of any project that contributes to these continued losses and impacts will further limit those resources, even if the resource can be scientifically studied and appropriately recorded.

The proposed project's contribution, when combined with other past, present, and foreseeable development in the area, would be considered a **potentially significant cumulative impact**. However, implementation of mitigation measures **MM 3.4-1a** through **MM 3.4-1c**, which require avoidance and protection of known resources, can fully mitigate the project's contribution to this cumulative effect. Implementation of **MM 3.4-1d** alone, which provides some level of mitigation through scientific methods, would not fully mitigate project impacts.

GEOLOGY AND SOILS

The proposed project will not combine with any other factors or projects and thus is not significant due to the localized, site-specific nature of geotechnical and seismic impacts. Therefore, **no significant cumulative impacts** are anticipated relative to geology or geologic hazards.

GROUNDWATER RESOURCES AND HYDROGEOLOGY

Cumulative Adverse Effect on the Surrounding Subareas

Impact 3.6-4 Implementation of the proposed project, when combined with other reasonably foreseeable projects, would increase groundwater pumping in the Salinas Valley Groundwater Basin. This is considered a **less than significant cumulative impact.**

As discussed in this section, the proposed project is located within Monterey County Water Resources Agency's Zone 2C, which provides additional water resources from the Nacimiento and San Antonio Reservoirs via the Salinas River. The project applicant contributes financially to the SVWP and its groundwater management strategies. The project's impact on the groundwater basin is therefore mitigated by this contribution.

According to DWR basin maps, the project site is located in the northeast portion of the Corral de Tierra Subbasin (DWR 2010) of the Salinas Valley Groundwater Basin. However, potable water for the proposed project would be provided by wells in CWSC's Salinas District, which procures water from the 180/400-Foot Aquifer Subbasin of the Salinas Valley Groundwater Basin. Since the SVWP went into operation in 2010, the entire basin appears to be becoming more hydrologically balanced, as a noticeable change in depth to groundwater levels has been observed in most subbasins.

Although the SVWP will not deliver potable water to the project site, it was developed to meet projected water demands based on development and population forecasts. Development forecasts for the project site previously assumed a maximum allowable buildout of 447 units. The proposed project now includes only 212 residential lots and has been deemed consistent with AMBAG's 2008 population forecasts. The higher density (and associated water consumption) was accounted for in the SVWP. For all of these reasons, the cumulative effect of the project on water demand is considered **less than significant.**

SURFACE WATER HYDROLOGY AND WATER QUALITY

Cumulative Long-Term Surface Water Runoff and Water Quality

Impact 3.7-5 Implementation of the proposed project, when combined with reasonably foreseeable and similar development, would result in a cumulative increase in impervious surface that may have an adverse impact on surface water runoff and water quality. However, new development will be required to limit peak storm runoff to pre-project or pre-soil disturbance levels through construction of detention ponds or other approved measures. Therefore, this would be considered a **less than significant cumulative impact.**

Although the buildout of the proposed project will result in an increase in impervious surfaces, all project impacts will be addressed on-site and will not combine with other development projects to create a significant cumulative effect. New development will be required to limit peak storm runoff to pre-project or pre-soil disturbance levels through construction of detention ponds or other approved measures. Therefore, each project would detain surface water runoff, and this impact would be considered **less than significant**.

HAZARDS AND HAZARDOUS MATERIALS

Risk of Exposure to Hazardous Waste or Materials

Impact 3.8-6 Implementation of the proposed project, combined with future development, could result in the exposure of people and property to hazardous materials. However, hazardous materials impacts are generally site-specific and are not affected by cumulative development in the region. In addition, the proposed project itself is not anticipated to contribute to a health or hazard-related impact that would cumulatively affect the environment. Therefore, this is considered a **less than significant cumulative impact.**

Hazardous materials impacts are generally site-specific and are not affected by cumulative development in the region. Hazardous materials on the project site would be removed with implementation of mitigation measures **MM 3.8-1a, MM 3.8-1b** and **MM 3.8-3**. Chapters 15.08.120 (Ordinance 3316 Sections 1 and 2, 1988), 18.20.090, and 18.56 of the

Monterey County Code ensure that exposure to water well hazards, septic system hazards, and wildland fire hazards is reduced to a less than significant level. The project site is not located in the Monterey Peninsula Airport's hazard zones or CNEL contour zone. The proposed project itself is not anticipated to contribute to a health or hazard-related impact that would cumulatively affect the environment. Therefore, this would be considered a **less than significant cumulative impact**. No additional mitigation measures are necessary.

LAND USE, POPULATION, AND HOUSING

Cumulative Land Use Impacts

Impact 3.9-3 The proposed project, combined with other foreseeable projects in the Toro planning area, may result in cumulative land use impacts to the project area. However, the proposed project would be consistent with the *Monterey County General Plan*, *Toro Area Plan,* and zoning provisions, which would ensure that there would not be any project-specific land use impacts that would combine with other foreseeable projects. Therefore, this would be considered a **less than significant cumulative impact.**

The proposed project is consistent with the *Monterey County General Plan* goals and policies, which seek to develop rural residential land uses on the project site. Future development on the project site would be subject to design review, which will ensure that the proposed project meets the goals and policies in the *Monterey County General Plan* and *Toro Area Plan* for rural residential development within a D overlay. The proposed project would be consistent with the *Monterey County General Plan* and zoning provisions applicable to the project site; therefore, the project would result in a less than significant land use impact. Cumulative development would also be subject to the County's development review process through which any potentially significant land use impacts would be analyzed. As the proposed project is consistent with Monterey County policies and programs and no significant land use impacts were identified, the project will not combine with other similar projects to create or exacerbate a significant impact. Therefore, the cumulative land use impact would be considered **less than significant**. No mitigation measures are necessary.

Cumulative Population Growth

Impact 3.9-4 The proposed project, combined with other foreseeable projects in Monterey County, would result in cumulative population growth impacts. However, the proposed project is consistent with the Association of Monterey Bay Area Government's (AMBAG) regional forecasts. Therefore, this would be considered a **less than significant cumulative impact.**

According to AMBAG, the proposed project is consistent with the *2008 Population, Housing Unit and Employment Forecast*. Therefore, the estimated population increase at

buildout of the proposed project is well within the forecast established for Monterey County and the anticipated growth in the unincorporated area of Monterey County. Therefore, the proposed project would have a **less than significant cumulative impact** on population growth in the County of Monterey. No mitigation measures are necessary.

PUBLIC SERVICES AND UTILITIES

Cumulative Impacts to Public Services and Utilities

Impact 3.10-11 Implementation of the proposed project, in combination with other reasonably foreseeable development, would result in a cumulative increase in demand on public services, resulting in the need for increased public facilities, fire and police protection services, educational services, parks and recreation facilities, and utilities. This cumulative demand would be considered a **less than significant cumulative impact.**

No significant increases in demand on public services, emergency services, water service, schools, solid waste, and utilities have been identified for the proposed project that cannot be adequately mitigated. The project's incremental, cumulative contribution to these services is not sufficient to trigger the need for new or expanded facilities, or cause additional environmental impacts from the construction of such new facilities, beyond those analyzed and disclosed for the project itself.

However, the proposed project would require approximately 212 wastewater connections, which would leave a remaining capacity in the wastewater treatment plant to serve approximately 99 single-family residences. According to the Monterey County Planning and Building Inspection Department's list of active planning projects (as of November 20, 2006), reasonably foreseeable development in the service area includes approximately 49 residential lots, a 126,500-square-foot shopping center, and a 3,600-square-foot fire station administration building. Some of these developments, if not all, may want to connect to the existing wastewater treatment plant. **Table 3.10-3** provides a summary of existing and anticipated connections to the wastewater treatment plant.

In addition, there are approximately 300 existing homes in the San Benancio/Corral de Tierra corridor that are currently on septic systems. Some of these property owners have expressed the desire to connect to the existing wastewater treatment facility and some may be forced to connect to the existing facility if their systems fail. However, as the number and timing of these potential connections are not known, they are not anticipated to factor significantly into the cumulative demand for remaining capacity as a near-term unified "project."

The capacity of the existing wastewater treatment plant is regulated by the RWQCB, and the plant is not allowed to operate when it exceeds the maximum capacity. According to California Utilities Service, connections to the wastewater treatment plant are guaranteed on a first-come, first-served basis based upon payment of connection fees. **Table 3.10-3**

illustrates that with cumulative development the existing plant will be very close to the permitted plant capacity of 300,000 gallons per day. Upon the maximum capacity of the wastewater treatment plant being exceeded, California Utilities Service would be required to submit to the Regional Water Quality Control Board and Environmental Health Bureau an application for amendment to the Report of Waste Discharge Order No. R3-2207-0008 and new permits associated with expansion (including any necessary environmental review). As the project's cumulative contribution to flows will not exceed plant capacity based on projected future demand, the cumulative increase in wastewater demand would be considered a **less than significant cumulative impact.** No mitigation measures are necessary.

NOISE

Exposure to Cumulative Increase in Transportation Noise

Impact 3.11-6 Implementation of the proposed project, combined with other reasonably foreseeable projects, may result in a cumulative increase in transportation noise levels that may be unacceptable to noise-sensitive land uses. However, predicted near-term increases in traffic noise levels attributable to the proposed project would be approximately 0.2 dBA or less. As future development in the region and corresponding traffic volumes along area roadways increase, the proposed project's contribution to cumulative increases in traffic noise levels would be anticipated to decline. Therefore, the proposed project's contribution to cumulative traffic noise levels would be considered a **less than significant cumulative impact.**

Noise generated by the proposed residential land uses, as perceived at nearby land uses, would be primarily associated with increases in vehicle traffic on area roadways. As discussed in **Impact 3.11-3**, predicted near-term increases in traffic noise levels attributable to the proposed project would be less than 1.0 dBA. As future development in the region and corresponding traffic volumes along area roadways increase, the project's contribution to cumulative increases in traffic noise levels would be anticipated to decline. Therefore, the proposed project's contribution to cumulative traffic noise levels would be considered **less than significant**. No mitigation measures are necessary.

TRANSPORTATION AND CIRCULATION

Cumulative Impact on Level of Service

Impact 3.12-5 Implementation of the proposed project, when combined with other reasonably foreseeable projects, would result in a cumulative increase in traffic volumes that would result in unacceptable levels of service on the local roadway network in the vicinity of the project site. This would be considered a **significant cumulative impact.**

A number of other projects in the region are in various stages of review and consideration by several local agencies. The list of cumulative projects relevant to this traffic study was developed in consultation with the County of Monterey Planning and Public Works staff. The list is considered conservatively broad, as several projects have stalled indefinitely as a result of the current economic climate. The proposed project, combined with the cumulative relevant projects, would generate an estimated 184,406 daily trips regionally as shown in **Table 3.12-12**. This is a "worst-case" scenario that assumes all potential projects are approved and constructed over time.

Intersection Levels of Service – Cumulative Project Conditions

Intersection levels of service for cumulative traffic conditions are summarized in **Table 3.12-13**. As shown in **Table 3.12-13**, 19 of the 22 study intersections would operate at unacceptable levels of service under cumulative traffic conditions. The trips generated by the proposed project would result in a significant impact primarily because they would add at least one trip to intersections operating at LOS F. The project would contribute to the cumulative level of service degradation throughout the roadway network.

Roadway Segment Levels of Service – Cumulative Project Conditions

Cumulative traffic conditions road segment levels of service, as well as A.M. and P.M. peak-hour volumes on the study road segments, are summarized in **Table 3.12-12**. As shown in **Table 3.12-12**, 13 of the 17 study roadway segments would operate at unacceptable levels of service during the A.M. and/or P.M. peak hours. As with intersection impacts, the trips generated by the proposed project would result in a significant impact primarily because they would add at least one trip to roadway segments operating at LOS F. The project contributes to the cumulative level of service degradation throughout the roadway network.

Cumulative Impact Summary

The cumulative trips associated with the proposed project and other development would degrade the levels of service or would exacerbate existing unacceptable levels of service at 19 study intersections and 13 study roadway segments. Mitigation measure **MM 3.12-1a** requires the project applicant(s) to financially contribute towards implementation of the State Route 68 Commuter Improvements, a programmed project in the TAMC RDIF program. Implementation of this improvement would improve several intersection and roadway segment operations under Cumulative Project Conditions. As under Background Plus Project Conditions, implementation of the State Route 68 Commuter Improvements would also improve operations at three study intersections under Cumulative Conditions (i.e., Corral de Tierra/State Route 68, San Benancio/State Route 68, and Torero Drive/State Route 68). In order to improve operations at the Corral de Tierra Road/State Route 68 intersection to acceptable levels of service under Cumulative Project Conditions, the following additional intersection improvements would be required:

- **Intersection 8 – Corral de Tierra Road/State Route 68:** Convert northbound Corral de Tierra Road to right-turn overlap phasing. Implementation of these improvements would improve operations at this intersection to LOS C during both the A.M. and P.M. peak hours under Cumulative Project Conditions. Implementation of mitigation measure **MM 3.12-1a** would result in the payment of fees toward the widening of State Route 68 to four lanes at this intersection, which would necessitate traffic signal modifications. The northbound right-turn phasing at this intersection could be converted to right-turn overlap phasing as part of the signal modifications. This improvement is recommended to be included in the State Route 68 Commuter Improvements, which is included in the TAMC RDIF program. Although this improvement is only triggered under Cumulative Conditions, this minor signal phasing modification is assumed to be implemented with mitigation measure **MM 3.12-1a**.

The proposed project would address cumulative traffic impacts through contribution toward other previously identified regional improvements, which is consistent with the County's and TAMC's methodology. The following mitigation measure would require that the project applicant contribute their fair share toward all traffic impact fees, including the TAMC RDIF, to help fund all regional improvements in the county and reduce the proposed project's cumulative impact to affected intersections and roadway segments.

Mitigation Measure

MM 3.12-5 The Monterey County Resource Management Agency shall require the project applicant to pay the project's fair share of traffic impact fees in effect at the time of building permit applications for future development on the project site. Such fees may include, but are not necessarily limited to, the TAMC Regional Development Impact Fee (RDIF), City of Salinas Traffic Impact Fee (TFO), and Monterey County ad hoc mitigation fees. Payment of the TAMC RDIF may be done as part of compliance with mitigation measures **MM 3.12-1a** and **MM 3.12-1c**.

Implementation of the above mitigation measure would require the proposed project to contribute their fair share toward all applicable regional traffic impact fees in effect at the time of issuance of building permit, including but not limited to the TAMC RDIF, Monterey County ad hoc mitigation fees, and the City of Salinas TFO. Through the payment of these regional and local traffic impact fees, the proposed project would directly contribute to identified improvements such as the State Route 68 Commuter Improvements and Marina Salinas Corridor projects, which would help offset any cumulative traffic impacts on significant roadways caused by increased trip volume associated with the proposed project.

The payment of fees adequately mitigates the project's contribution to needed improvements identified in adopted fee programs over the long term. However, the traffic analysis for Cumulative Project Conditions also identified the need for additional intersection and roadway segment improvements that are not included in any fee program.

Additional improvements needed to address cumulative traffic impacts include the following:

- **Intersection 3 – State Route 218/State Route 68:** Widen and restripe northbound Monterra to include one left-turn lane, one through lane, and one right-turn lane. Widen and restripe eastbound State Route 68 to include two left turn lanes, one through lane, and one through/right-turn lane. Convert State Route 218 southbound right-turn to right-turn-overlap phasing.

- **Intersection 4 – Ragsdale Drive/State Route 68:** Add a second eastbound left-turn lane.

- **Intersection 13 – Portola Drive/State Route 68 WB Ramps:** Signalize this intersection.

- **Intersection 14 – State Route 68 EB Ramps/River Road:** Add a second eastbound left-turn lane on River Road, and add a second northbound receiving lane on the State Route 68 eastbound on-ramp.

- **Intersection 15 – State Route 68 WB Ramps/Reservation Road:** Widen and restripe eastbound Reservation Road to include one through lane and one right-turn lane.

- **Intersection 16 – State Route 68 WB Ramps/Spreckels Boulevard:** Signalize the intersection, and add a second westbound left-turn lane on Spreckels Boulevard. Implementation of this improvement would require a second receiving lane on the westbound State Route 68 on-ramp as recommended above.

- **Intersection 17 – State Route 68 EB Off-ramp/Spreckels Boulevard:** Add a second eastbound through lane to Spreckels Boulevard, restripe northbound State Route 68 off-ramp to include a shared left/right-turn lane, and add a second eastbound receiving lane to Spreckels Boulevard.

- **Intersection 18 – State Route 68 EB On-ramp/Spreckels Boulevard:** Add a second through lane to Spreckels Boulevard in both directions.

It is recommended that the County of Monterey work toward listing and programming these additional improvements as fee programs and the projects they include are regularly updated. The payment of impact fees mitigates the project's contribution to cumulative impacts to a **less than significant** level, as the mitigation fees will be used over the long term to address ongoing improvements to the regional circulation system.

GREENHOUSE GASES AND CLIMATE CHANGE

Increase of Greenhouse Gas Emissions

Impact 3.13-1 Development of the proposed project would contribute to increases of GHG emissions that are associated with global climate change. Therefore, the proposed project would result in increased greenhouse gas emissions that would be considered a **potentially cumulatively considerable** impact.

Development of the proposed project would contribute to short-term and long-term increases of GHG emissions that are associated with global climate change. Temporary increases in GHG emissions would be associated with construction activities including but are not limited to, grading, clearing, construction, tree removal and disposal. Operational emissions would be primarily associated with mobile source emissions. In addition, changes to natural resources on the project site that currently store and sequester carbon would result in changes to the carbon cycle and may result in the release of CO_2.

GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contributes substantially to the phenomenon of global climate change and its associated environmental impacts and as such is addressed only as a cumulative impact.

Construction Emissions

Temporary emissions would be associated with the use of gasoline or diesel powered equipment to remove the trees and release of carbon through disposal of removed trees and disturbance of soils during site clearing, grading and construction. Short-term construction equipment emissions associated with the development of the proposed land uses are summarized in **Table 3.13-5**. As shown in **Table 3.13-5**, the project would generate a maximum of approximately 418 metric tons per year of CO_2e from construction equipment emissions, with an average of 267 metric tons.

Implementation of mitigation measure **MM 3.2-1** (see Section 3.2, Air Quality) requires implementation of Best-Available Control Measures (BACM) during site preparation and construction, and a construction emissions reduction plan (CERP) that includes measures recommend by MBUAPCD. This mitigation measure would substantially reduce GHG emissions during construction as it includes the stipulation that all on- and off-road diesel equipment will not idle for more than 5 minutes, except as needed to perform a specified function (e.g., concrete mixing) and that diesel equipment used onsite would for the most part be year 2003 models, or newer. Diesel equipment older than 2003 would be required to be retrofitted with emission control technology (e.g., diesel-particulate filter); or, use alternative fuels (e.g., biodiesel). For equipment retrofitted to operate with diesel-exhaust

emissions control technology, mitigation measure **MM 3.2-1** mandates the inclusion of a verification of installation or presence of these devices for review by MBUAPCD.

Operational Emissions

Estimated GHG emissions attributable to future development would be primarily associated with increases of CO_2 from mobile sources. To a lesser extent, other GHG pollutants, such as methane and nitrous oxide would also be generated, largely associated with electricity use and natural-gas consumption. Estimated emissions of CO_2 were calculated using the URBEMIS2007 computer program, based on default parameters (i.e., emission factors, vehicle fleet, and trip distribution data) contained in the model and vehicle data obtained from the traffic analysis prepared for this project. Emissions were converted to CO_2 equivalents (i.e., CO_2e), expressed in metric tons (MT). Emissions associated with water conveyance, wastewater treatment, and solid waste generation has been calculated using the California Emissions Estimator Model (CalEEMod), version 2011.1.1, computer program. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for the use of government agencies, land use planners, and environmental professionals. Long-term operational emissions associated with the development of the proposed land uses are summarized in **Table 3.13-6**. As shown in **Table 3.13-6**, the proposed project would generate a maximum of approximately 5,410 MT/year of CO_2e upon buildout. Approximately 63 percent of the predicted annual operational GHG emissions would be associated with motor vehicle use.

CO_2 Storage and Sequestration

Implementation of the proposed project would result in the removal of approximately 921 trees and disturbance of approximately 92 acres of soil. Removal of trees/oak woodlands, replanting of trees, and disturbance of soil, can affect the amount of CO_2 sequestered on the project site and result in the release stored CO_2. In addition, proposed tree removal using gasoline powered equipment used to remove the trees would generate additional CO_2 emissions through the burning of fossil fuels.

As noted above, it is estimated that approximately 92,351 metric tons of CO_2 is currently stored on the project site within the trees and soil (tree equal approximately 82,607 metric tons; and the soil equals approximately 9,744 metric tons). Using the CUFR Tree Carbon Calculator, it has been estimated that the amount of stored CO_2 that would be released through removal of 921 trees would be approximately 2,590 metric tons, of which approximately 1,101 metric tons would be stored in above-ground biomass. The disposal of removed trees through burning or natural decay would release stored carbon but at different rates and in different forms. Wood that is burned immediately returns carbon in the form of combustion gasses, primarily CO_2 and methane. Wood that naturally decays would return carbon over many years. In addition, disturbance of approximately 92 acres of soil would release approximately 1,067 metric tons of carbon into the atmosphere (11.2 metric tons of carbon per acre x 92 acres).

The removal of approximately 921 trees would initially (prior to replanting) reduce the rate of carbon sequestration on the project site by approximately 172 metric tons per year as shown in **Table 3.13-7**. However, all oak trees must be replaced by replanting trees from native seed stock at a ratio of 1:1 (see mitigation measure **MM 3.3-6a**). It would take approximately 25 years for the replanted trees to sequester CO_2 at the same rate as the removed trees and over 30 years to store the same amount of CO_2 within the trees as currently stored, as shown in **Table 3.13-8**.

Implementation of the mitigation measures **MM 3.3-6a, MM 3.3-6b** (see Section 3.3, Biological Resources) and **MM 3.5-1** (see Section 3.5, Geology and Soils) would minimize removal of and/or damage to existing trees and soil disturbance. Mitigation measure **MM 3.3-6a** requires preparation of site specific tree removal and replacement plans prior to issuance of grading permit to ensure the loss of oak woodlands and individual coast live oak trees (*Quercus agrifolia*) is minimized and that removed trees are replanted in accordance with Section 21.64.260 of the *Monterey County Zoning Ordinance* and Section 21083.4 of the CEQA Guidelines. Mitigation measure **MM 3.3-6b** requires installation of protective fencing along the driplines of protected trees in order to minimize damage to remaining trees during construction. Mitigation measure **MM 3.5-1** would ensure that design level specifications and recommendations provided in the Geotechnical Investigation prepared by Soil Survey, Inc. in the December 31, 2007 or any subsequent updates are followed for individual lots. Implementation of these measures would minimize the proposed project's impact on the carbon stored and sequestered on the project site.

AB 32 Compliance

As stated above, for the purposes of evaluating the proposed project's GHG impacts, and in the absence of locally adopted Air District emission standards, the project is be considered to have a significant impact if it would be in conflict with the AB 32 goals for reducing greenhouse gas emissions. In August 2011, CARB approved the AB 32 Scoping Plan outlining the state's strategy to achieve the 2020 GHG emissions limit. This Scoping Plan, developed by CARB in coordination with the Climate Action Team (CAT), proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify California's energy sources, save energy, create new jobs, and enhance public health. The measures in the Scoping Plan are scheduled to be in place in 2012. The Scoping Plan contains a list of 39 recommended actions contained in Appendices C and E of the Scoping Plan. This list is also shown in **Table 3.13-9**.

The strategies included in the Scoping Plan that apply to the project are contained in **Table 3.13-10**, which also summarizes the extent to which the project would comply with the strategies to help California reach the emission reduction targets. The strategies listed in **Table 3.13-10** are either required mitigation measures or requirements under local or state ordinances. With implementation of these strategies/measures, the project's contribution to cumulative GHG emissions would be reduced. In order to ensure that the proposed project

complies with and would not conflict with or impede the implementation of reduction goals identified in AB 32, mitigation measure **MM 3.13-1**, described below, shall be implemented.

In order to ensure that the proposed project complies with and would not conflict with or impede the implementation of reduction goals identified in AB 32, mitigation measure **MM 3.13-1** shall be implemented.

Mitigation Measure

MM 3.13-1 Prior to building permit approval, Monterey County Planning Department shall require that project applicant(s) implement the following measures to reduce short-term and long-term emissions of GHGs associated with construction and operation of the proposed project:

Construction

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard) to the extent practical.
- Low- or No-VOC paints, adhesives and sealants shall be used during the construction of all proposed onsite structures.
- Environmentally preferable and low-emitting materials shall be used for interior finishes and flooring materials of proposed onsite structures.

Operation

- Bicycle parking facilities and preferential parking for carpooling and alternative-fueled vehicles shall be provided at locations (such as the winery facility) determined by the County of Monterey Planning Director. This measure encourages use of alternative transportation by employees and helps to reduce the amount vehicle miles traveled by the project.
- Proposed commercial uses shall provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.
- Commercial buildings shall employ energy-efficient technology unless technical feasibility of safety concerns take precedent. Examples of such systems would include use of T5HO fluorescent fixtures with electronic ballast, occupancy sensor lighting controls, light emitting diodes, external lighting controls and timers, and other similar measures.

- Indoor water conservation measures shall be incorporated, such as use of low-flow toilets, shower heads, and faucets.
- Wood-burning fireplaces and stoves shall be prohibited.
- Proposed residential land uses shall provide a minimum of one exterior electrical outlet at rear, side, and front yard locations to promote/allow the use of electric landscape maintenance equipment.
- Proposed residential land uses shall be designed to meet Title 24 California Green Building Standards Code (CALGreen) as adopted by Monterey County. Effective measures that can be incorporated into building designs to help reduce energy consumption include, but are not necessarily limited to, the following:
  - Increased building insulation.
  - Use of Low-E windows and doors and Energy-Star rated roofing materials.
  - Installation of energy-efficient lighting and lighting control systems.
  - Installation of energy-efficient (e.g., Energy-Star rated) heating and cooling systems, appliances and equipment.
  - Installation of light colored "cool" roofs (i.e., high reflectance, high emittance roof surfaces) on non-residential structures.
  - Use of daylight as an integral part of lighting systems in buildings.

In addition to the above mitigation measure, the proposed project will be conditioned to comply with Section 18.44.040 of the Monterey County Municipal Codes, which requires that all new construction use low water use or native plant material and low precipitation sprinkler heads, bubblers, drip irrigation system and timing devices for all exterior landscaping. Before any permit may be issued for such new construction, the applicant shall submit a landscape plan for review and approval by the Director of Building Inspection in conformity with landscape guidelines adopted by the Board of Supervisors. Such measures would result in the demand for less water consumption which then results in less energy consumption for pumping water.

The proposed project would also be conditioned to comply with Section 19.10.080 of the Monterey County Municipal Code. Section 19.10.080, Energy Conservation, requires the design of a subdivision to provide, to the extent feasible, for future passive or natural heating or cooling opportunities in the subdivision. Examples of passive or natural heating opportunities in subdivision design include design of lot size and configuration to permit orientation of a structure in east-west alignment for southern exposure. Examples of passive or natural cooling opportunities in subdivision design include design of lot size and configuration to permit orientation of a structure to take advantage of shade or prevailing

breezes. In providing for future passive or natural heating and cooling opportunities in the design of the proposed residential development, consideration shall be given to local climate, to contour, to configuration of the parcels, and to other design improvement requirements.

Implementation of mitigation measure **MM 3.13-1** as well as compliance with Section 18.44.050 and 19.10.080 of the Monterey County Municipal Code and application of State regulatory requirements such as the Renewables Portfolio Standards, CALGreen Building Energy Efficiency Standards, and Pavley regulations described above, would reduce project-generated GHG emissions and would ensure consistency with GHG emission-reduction strategies adopted by the State of California. Furthermore, implementation of mitigation measure **MM 3.2-1** (see Section 3.2, Air Quality) would substantially reduce GHG emissions during construction and implementation of the mitigation measures **MM 3.3-6a, MM 3.3-6b** (see Section 3.3, Biological Resources) and **MM 3.5-1** (see Section 3.5, Geology and Soils) would minimize the proposed project's impact on the carbon stored and sequestered on the project site.

For these reasons, the project would result in GHG emissions below those projected in **Table 3.13-6.** While not all of the GHG reduction instigated by the mitigation measures above are quantifiable due to emissions modeling software limitations, **Table 3.13-10** presents GHG emissions reductions from all the quantifiable mitigation measures and conditions required**.** Reductions in GHG emissions were quantified using CalEEMod. The CalEEMod-attributed percent reductions associated with the quantifiable mitigation measures and conditions were applied to the projected GHG emissions depicted in **Table 3.13-6**.

As shown in **Table 3.13-11**, the quantifiable requirements of mitigation measure **MM 3.13.1** and the Monterey Municipal Code would reduce GHG emissions by an estimated 152 metric tons of CO_2e each year of project operations.

In summary, while it is difficult to quantify the exact reductions in GHG emissions anticipated from the project mitigation measures and existing code requirements, the modeling and reduction estimates demonstrate that the proposed project would be consistent with the goals of California's AB 32. By incorporating energy efficient construction methods and project features such as fixtures and infrastructure that use less energy and water, the proposed project would result in lower GHG emission rates compared to the "business as usual" Scenario. Since the project is consistent with relevant AB 32 Scoping Plan strategies, and there are no locally adopted GHG emissions thresholds, the project's contribution to the impact of global climate change is considered **less than significant** at the project-specific and cumulative level.

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