

Introduction

This chapter contains analyses of the proposed program’s potential to contribute to cumulative impacts in the region, induce growth, and result in significant, irreversible environmental changes. Resource topics for which no significant cumulative impacts were identified are also included in this chapter.

Key data sources reviewed in the preparation of this chapter include:

- CVMP Traffic Study prepared by DKS Associates (DKS 2007);
- 1982 Monterey County General Plan;
- Carmel Valley Master Plan.

Cumulative Impacts

CEQA Requirements

Section 15130 of the State CEQA Guidelines requires lead agencies to evaluate a proposed undertaking’s potential to contribute to cumulative impacts in the project or program area.

Cumulative impact refers to the combined effect of “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Sec. 15355). As defined by the state, cumulative impacts reflect:

[t]he change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Sec. 15355[b]).

CEQA requires the lead agency to identify projects and programs related to the undertaking being analyzed and to evaluate the combined (cumulative) effects of

those related projects on the environment. If cumulative impacts are identified as significant, the lead agency must then assess the degree to which the proposed undertaking would contribute to those impacts and identify ways of avoiding or reducing any contribution evaluated as “cumulatively considerable” (State CEQA Guidelines Sec. 15130[b]). Lead agencies may use a “list” approach to identify related projects, or may base the identification of cumulative impacts on a summary of projections in an adopted general plan or related planning document.

Assumptions

The following assumptions were used in the analysis of cumulative impacts.

- A cumulatively considerable impact occurs only if the proposed program would contribute something to the total effect. A cumulatively considerable impact is more likely to occur if either the program’s contribution and/or the prevailing negative conditions are substantial.
- Pursuant to CEQA Guidelines Sections 15064 and 15130, a project’s incremental contribution to a cumulative impact is not cumulatively considerable if the project would comply with the requirements of a previously approved plan or mitigation program that provides specific requirements that would substantially lessen the cumulative problem, or if the project would contribute its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.
- All direct effects of the proposed program have the potential to contribute to cumulatively considerable impacts, even if they are individually less than significant.
- The geographic region affected by cumulative impacts varies by resource; for instance, the region affected by cumulative air quality impacts may be larger than the region affected by cumulative noise effects.
- This analysis incorporates past projects by acknowledging their contribution to existing negative or sensitive conditions.

Potential Plans, Programs, and Projects with Related or Cumulative Impacts

The potential for program-generated effects to contribute to a significant cumulative impact would arise if several projects with similar effects were being constructed concurrently with the proposed program within the same geographic area. This geographic area may vary, depending on the issue area discussed and the geographic extent of the potential impact.

Approach

Cumulative Buildout in CVMP Area

The proposed program considers cumulative conditions in its assessment of cumulative impacts. The cumulative conditions are based on the buildout assumptions of the CVMP analysis (see Appendix F — Traffic Study) and the Association of Monterey Bay Area Governments (AMBAG) Model. The buildout year is assumed to be 2030.

Residential Development Assumptions in the CVMP

For this cumulative analysis, the following residential development is accounted for in the CVMP area:

- Residential Units approved before 1998, but not built as of 2000 - 428 units (of which 140 are inside the CVMP) including unbuilt units in the Rancho San Carlos/Santa Lucia Preserve¹.
- Residential Units in approved subdivisions from 1998 to 2006 - 152 units from 1998 to 2005 and the September Ranch approval in 2006.
- Residential Units approved from 1999 – 2005 - A total of 75.5 SFDs and adjunct units that received building permits on existing lots from 1999 to 2005 and are presumed unbuilt by 2000. Building permits were also issued for a total of 34 SFDs and adjunct units on lots subdivided after 1987; these units were assumed to be included in the approved subdivision totals noted above.
- Residential Units approved after 2006 - CVMP policy allows up to 1,310 total units to be built after 1986. Per County data, of building permits issued between 1986 and 2005, building permits were issued for a total of 334.5 single family dwelling units and 120.5 adjunct units on lots in existence prior to January 1, 1987 for a total of 455 units. From 1986 to 2006, the County approved an estimated 322 units in subdivisions in the CVMP. Thus, from 1986 to 2006, the County has approved 777 units, which leaves a remaining residential unit quota of 533 units. There are 390 vacant parcels designated for residential use within the CVMP area. Removal of parcels designated for incompatible uses, parcels with known locations of approved but not yet built subdivisions, and parcels with substantive development leaves 302 remaining vacant parcels within the CVMP area. All future residential units were presumed to be on residentially-designated vacant lots, unless specifically assumed otherwise.

¹ Although much of the Preserve is outside the CVMP area, the unbuilt units directly place traffic in the CVMP area; however the Preserve units outside of the CVMP area (288 units) do not count against the CVMP residential cap.

Visitor-serving and Commercial Development Assumptions in the CVMP area

Visitor-serving developable parcels are based on the visitor-serving or commercially zoned parcels greater than 1 acre, with less than \$100,000/acre improvements and total improvement value of less than \$5 million. For this cumulative analysis, the following visitor-serving and commercial development is accounted for:

- Approved visitor-serving projects that had not yet been built as of 2000 or were approved after 1998 - 108 units.
- New Visitor-Serving Units - Accounting for past approvals, the CVMP will allow 285 visitor-serving units after 2006. All future visitor-serving units will be on commercially-designated vacant lots. The Carmel Valley Ranch application to convert 144 existing hotel units into 144 individually-owned hotel units was not assumed to result in additional traffic.
- Commercial Growth - The AMBAG model assumptions for commercial growth in the CVMP area were used. The AMBAG model forecasts 3,457 additional employees in the CVMP area between 2000 and 2030. The AMBAG model did not include any increase in employees related to visitor-serving units, which are covered by the assumptions noted above related to the 285 visitor-serving units.

Cumulative Buildout in Monterey County

Buildout of the 1982 *General Plan* with the amended Housing Element adopted in 2003, would allow up to 13,570 new dwelling units in the County, approximately 1,054 acres of commercial development, and the creation of an estimated 8,151 jobs (Michael Brandman Associates 2006). This amount of potential growth was used in the assessment of cumulative impacts other than traffic, air quality, and noise.

For growth outside the CVMP, the assumptions in the AMBAG model were used for traffic analysis for 2030 conditions and as a result were also used for the assessment of air quality and noise impacts (which are linked to traffic impacts).

Evaluation of Program Contribution to Cumulative Impacts

Analysis of cumulative impacts covers the CVMP area, as well as Monterey County. The proposed program does not contain site-specific project footprints for which a precise direct area of effect can be determined. Each specific improvement proposed under the program would be required to undergo individual environmental review, under which project footprints and direct areas of effect would be evaluated. In general, site-specific impacts would vary according to the project site's constraints, project-specific activities, and duration of construction. However, the general character of program impacts presented in

Chapter 3 is used to assess the potential for considerable contributions to significant cumulative impacts in the analysis below.

Geology, Soils, and Seismicity

Cumulative Impact GEO-1: Cumulative Impacts of Development on Geologically Hazardous Areas (Less than Considerable Contribution with Mitigation)

Cumulative impacts related to geology and soils could occur where regional development patterns place structures and occupants in areas susceptible to geological hazards. A jurisdiction's general plan process includes the mapping of such areas in order to influence development patterns away from particularly hazardous locations or to identify where special study and architectural/engineering measures would be required to ensure building safety. Regional geological concerns include seismic ground cracking, intense seismic shaking, soil liquefaction, slope stability, and soil shrinking/swelling. Local general plans, including that of Monterey County, require the preparation of geotechnical reports for development projects with potential geologic hazards. These reports identify potential hazards associated with projects and recommend policies and measures to be followed to ensure structural safety.

Due to widespread seismic activity within California, past, present, and future development continues to place structures and residents/occupants in areas that are susceptible to seismic ground shaking. Strict building code regulations are in place to ensure that structures properly account for seismic shaking and other seismically related hazards. Common adherence to mandatory building code regulation throughout the region would prevent a significant cumulative impact associated with placing new structures on land susceptible to geologic hazards. Given that the proposed program would comply with these established policies, the program would not contribute considerably to a cumulative impact.

Cumulative Impact GEO-2: Cumulative Accelerated Runoff, Erosion, and Sedimentation (Less than Considerable Contribution with Mitigation)

As described in Section 3.1, *Geology, Soils, and Seismicity*, of this EIR, impacts on runoff, erosion, and sedimentation would be considered less than significant with the implementation of mitigation measures. Additionally, any new development would be required to adhere to City, County, state, and federal requirements for the containment of runoff, erosion, and sedimentation as part of the CEQA process. These impacts can be mitigated at the project level, and thus implementation of the program would not contribute considerably to a cumulative runoff, erosion, or sedimentation impact.

Cumulative Impact GEO-3: Cumulative Significant Hazards to the Public or Environment (Less than Considerable Contribution with Mitigation)

Cumulative impacts related to hazards and hazardous materials could occur where development patterns place structures and residents/occupants in proximity to significant sources of safety hazards or hazardous materials, emissions, or where regional patterns develop new cumulatively hazardous sources near sensitive receptors.

The construction of the projects contained within the proposed traffic improvement program would require the use and temporary storage of hazardous materials. In addition, areas proposed for construction may contain hazardous material sites or buried contamination. Hazardous material treatment, transport, and storage are highly regulated by city, county, state, and federal regulations. While the proposed program would not contribute directly to significant hazards, the potential exists for accidental release due to vehicle accidents during operations, construction-related spills, and during ground disturbing activities. Cumulative development of the area would result in increased construction, traffic, and accident potential. However, as with the transport and storage of hazardous materials, the treatment of accidental spills and releases are highly regulated, and procedures and protocol exist to mitigate potential impacts to less-than-significant levels. By adhering to these policies, the project would have a less-than-cumulatively-considerable contribution to impacts on the exposure of the public to hazardous material.

Hydrology and Water Quality

Cumulative Impact H-1: Cumulative Impacts to Hydrology and Water Quality (Less than Considerable Contribution with Mitigation)

Future development in the region would require extensive construction, conversion of undeveloped areas, and the creation of impervious surfaces. Portions of the region also lie within the 100-year floodplain, and development within these areas can affect local and regional hydrology during flood events. As described in Section 3.2, *Hydrology and Water Quality*, of this EIR, the proposed program includes mitigation measures to ensure that hydrology and water quality impacts are less than significant. Such policies and mitigation measures are mandated by local, state, and federal regulations, both during construction and operation of projects. This includes compliance with NPDES General Construction Permits, Waste Discharge Requirements from the RWQCB, and FEMA policies regarding construction in a flood plain. Future developers in the region would be required to design and implement measures to ensure that project level impacts to hydrology and water quality are less-than-significant. Since hydrology and water quality impacts can be mitigated at the

project level, the proposed program would have a less than considerable contribution to this cumulative impact.

Biological Resources

Cumulative Impact BIO-1: Cumulative Loss of Biological Resources Including Habitats and Special Status Species (Considerable and Unavoidable Contribution With Mitigation)

Construction and maintenance activities associated with cumulative development in the region could result in the direct loss or indirect disturbance of special-status species within the county. Any impact on special-status plant species or their habitats could result in a substantial reduction in local population size, lowered reproductive success, or habitat fragmentation. The program contains mitigation measures aimed at reducing its project-level impacts to a less-than-significant level, but until project-level analysis is done, it cannot be known if impacts may be unavoidable. The cumulative impact of development in the region on biological resources is considered to be significant and unavoidable. Therefore, the program is considered to have a potentially considerable and unavoidable contribution to a significant cumulative impact.

Aesthetics

Cumulative Impact AES-1: Cumulative Degradation of the Existing Visual Character of the Region (Less than Considerable Contribution with Mitigation)

Carmel Valley, while having several built-up areas such as the mouth of the Valley and the Village, is dominated by a rural character. As discussed in Section 3.4, *Aesthetics*, with mitigation, the program's effects on that rural character is considered to be less than significant.

Within the CVMP area, buildout allowed by the CVMP could include residential, office, commercial, recreational, and associated infrastructure development. This growth will change the character of the CVMP area within the immediate vicinity of the new project areas, but given the limitations and policies in the CVMP itself, such buildout is unlikely to change the overall character of the area.

Regional growth (outside the CVMP) has combined and will continue to combine to create a cumulative aesthetic effect by converting undeveloped land into developed and occupied areas. Cumulative development entails grading/landform alteration, the erection of structures, and the installation of

roadways and other infrastructure that has altered and will continue to permanently alter the region's existing visual character.

While Section 3.4 includes mitigation to reduce program level impacts on visual resources to less-than-significant levels, the overall development in the region could result in a significant cumulative impact. However, given the limited nature of the traffic improvements in the proposed program, it is not expected to make a considerable contribution to this impact.

Land Use

Cumulative Impact LU-1: Cumulative Impact on Communities and Local Land Uses (Less than Considerable Contribution)

The EIR analysis of the proposed program indicated that projects would mainly occur within or in close proximity to existing rights-of-way and would be generally compatible with existing land uses and policies. Buildout within the CVMP in accordance with the CVMP land use policies and designations would also result in the land use conditions as planned for by local planning authorities.

It is possible that development may be approved in the future that may potentially conflict with County land use policies and designations by encroaching on incompatible land uses. This may allow cumulative significant land use impacts to occur. However, the proposed program includes limited traffic improvements designed to allow buildout of the CVMP area to occur in compliance with the adopted General Plan and CVMP. As such, the proposed program does not facilitate non-compliant land uses and would not contribute to any cumulative significant land use impacts.

Agricultural Resources

Cumulative Impact AG-1: Cumulative Impact on Agricultural Land (Considerable and Unavoidable Contribution with Mitigation)

The EIR analysis indicates that the proposed program may result in significant impacts if it results in conversion of prime agricultural land to road use. Most of the proposed improvements are within existing rights-of-way and will continue the existing transportation use of that land. Some of the proposed improvements may involve acquisition of additional rights-of-way, and some of these acquisitions may involve agricultural land. These are limited, but when combined with the projected population growth, resultant urban development, and future planned transportation projects that would convert agricultural land in the County

to urban uses, they could contribute to a cumulative impact on agricultural land in Monterey County. Although the proposed program would involve only limited areas and mitigation measures are identified to reduce impacts and/or require compensation, any net loss of prime agricultural land would contribute considerably to a cumulative impact.

Transportation and Circulation

The direct impacts and the cumulative impacts on transportation and circulation are both based on buildout of the CVMP including previously approved development proposals, proposals that have been submitted, but not yet approved, and anticipated additional residential subdivisions to be evenly distributed across potential development locations. Both scenarios rely on traffic forecasting included in Appendix F to this DEIR. Thus, the direct program analysis and the cumulative program analysis for Transportation and Circulation are the same (refer to Section 3.7, *Transportation and Circulation*).

Cumulative Impact T-1: Result in Traffic that exceeds LOS Standards Established by the County (Cumulative Contribution)

As described in Section 3.7, the proposed program would improve traffic conditions in the CVMP area compared to the no-project conditions. However, there would be a significant and unavoidable cumulative impact along CVMP Carmel Valley Road Segment 3 (Esquiline Road to Ford Road) because no allowable mitigation measure has been identified to improve the LOS there.

Cumulative development within the CVMP area is taken into account in the traffic study conducted for this EIR and cumulative conditions with the proposed program and CVMP buildout meets the established standards with the exception of Carmel Valley Road, Segment 3.

Cumulative development in Monterey County outside the CVMP area would contribute traffic in the CVMP area. This has been accounted for in the traffic study by using the AMBAG 2030 growth projections for areas outside the CVMP, such that impacts beyond those noted in the study for Carmel Valley Road are not anticipated. Outside the CVMP area, however, cumulative development may result in significant traffic impacts. The proposed program does not result in any additional trip generation, as it is limited to traffic improvements to support CVMP projected growth and does not include approval of any specific trip generating activity.

Cumulative Impact T-2: Traffic Delays due to Simultaneous Construction (Less than Considerable with Mitigation)

Short-term program construction impacts could be exacerbated if individual improvement projects under the proposed program or other roadway projects in the region occur simultaneously, triggering cumulative traffic impacts experienced by drivers. The combined effects of necessary detours could result in unacceptable traffic conditions in the program area. Likewise, short-term project construction impacts on transportation could be exacerbated if cumulated with any simultaneous utility extensions, maintenance, or other projects within roadways affected by the proposed program. Potential short-term impacts of the proposed program would be reduced with implementation of a Traffic Control Plan as specified under Mitigation Measure T-1 in Section 3.7, *Transportation and Circulation*. Mitigation Measure T-1 would reduce the impact to a less-than-significant level.

Air Quality

Cumulative Impact AIR-1: Cumulative Effect on Air Quality (Less than Considerable Contribution)

Guidance from the MBUAPCD's CEQA Air Quality Guidelines indicates that project emissions that are not consistent with the Air Quality Management Plan would result in a cumulative impact. As indicated in Impact AIR-1 in Section 3.8, *Air Quality*, the proposed program is considered to be consistent with this plan and thus would not contribute to a cumulative impact related to criteria pollutants.

Cumulative Impact AIR-2: Cumulative Elevated Health Risk from Exposure to Construction-Related Emissions (Potentially Considerable and Unavoidable)

As indicated in Section 3.8, *Air Quality*, construction of the proposed roadway improvements are anticipated to involve the operation of diesel-powered equipment for various ground-disturbing activities. In October 2000, the ARB identified diesel exhaust as a toxic air contamination. In addition, the MBUAPCD has identified acrolein from construction exhaust as a pollutant of concern. Diesel fuel will be reformulated over the next several years to reduce particulate emissions. In addition, cleaner diesel powered equipment will replace older construction equipment leading to an overall decrease in emissions of exhaust particulate matter and ozone precursor emissions. However, emission reductions are still needed on individual construction projects to reduce the exposure of sensitive receptors to toxic air contaminants and reduce ozone levels.

Mitigation was identified for construction that could reduce project-level impacts to less than significant. However, because it is currently unknown how close construction activities may occur in relation to sensitive receptors, construction activities may occur within distances that could result in significant health risks.

As exposure to toxic air contaminants is a long-term exposure, it is possible that other projects may also result in exposure of sensitive receptors near project sites, and thus a cumulative impact is possible. While in general, the amount of development in the CVMP area is limited and thus the potential for cumulative impacts is low, it cannot be ruled out entirely. Consequently, the project's contribution to this potential impact is considerable and may be unavoidable.

Cumulative Impact AIR-3: Increased Greenhouse Gas Emissions May Contribute to Climate Change (Significance Undeterminable)

It is possible that local transportation greenhouse gas emissions (GHG) emissions within the CVMP area, combined with the allowed full buildout of the CVMP area, when combined with emissions throughout California and throughout the world, might contribute to climate change.

The IPCC (2007b) has created multiple scenarios to project potential future global GHG emissions as well as to evaluate potential changes in global temperature, other climate changes, and their effect on human and natural systems. These scenarios vary in terms of the type of economic development, the amount of overall growth, and the steps taken to reduce GHG emissions. Non-mitigation IPCC scenarios project an increase in global GHG emissions by 9.7 up to 36.7 billion metric tons (Gt) CO₂ eq from 2000 to 2030, which represents an increase of between 25 and 90 percent.

Climate change, by a substantive scientific consensus represented by the analysis of the IPCC, is a significant cumulative impact globally, given the ramifications for air quality, climate, public health, water resources, flooding, sea level rise, agricultural productivity, and biological resources, among other potential effects.

The proposed program is designed to complement, rather than change the plans adopted at the CVMP and the County level. Thus, the ultimate effect of the proposed program on transportation emissions is not to increase the amount of travel per se, but rather to influence traffic levels of service. This is supported by comparing the vehicle miles traveled (VMT) for the 2030 no-project condition and the 2030 with-project condition, which are virtually identical. Thus, comparison of emissions between what exists today and what would exist in 2030 with the proposed program is not a true measure of the effect of the program on GHG emissions. A better identification of the effect of the program is to compare emissions potential with the program against the No-Project Alternative as well as the other alternatives. As described in Section 3.8, the proposed program would result in identical traffic-related carbon dioxide emissions as the No-Project Alternative. Thus, implementation of the proposed

program is unlikely to contribute more vehicle-related GHG emissions than if the program is not implemented.

As noted in Section 3.8, there would also be additional emissions related to a larger amount of residential growth with the program, as the subdivision moratorium would be lifted and thus additional residential growth would be possible. Residential vehicle-related emissions are accounted for in the calculations in section 3.8. Other residential sources such as electricity and natural gas consumption were not estimated and could also result in GHG emissions. What portion of the new residential GHG emissions in the CVMP area would be truly “new” globally or just displaced from one location to another is not known and cannot be determined until demonstrated and accepted methodologies are developed to adequately address baseline issues.

While globally, climate change is, by any definition, a significant cumulative environmental impact and the impacts of climate change on California human and natural systems would also be significant, as noted in Section 3.8, there currently is no agreed-upon methodology to adequately identify, under CEQA, when project-level GHG emissions contribute considerably to this significant cumulative impact. Thus, at this time, it would be speculative to determine if the potential GHG emissions associated with the proposed program would or would not contribute considerably to this significant cumulative impact.

State action on climate change is mandated by AB-32. Monterey County along with other planning agencies throughout the state, will be monitoring the progress of state agencies in developing approaches to address GHG emissions. As agreed-upon approaches for project-level CEQA analysis, land use planning, and project development are established, it is expected that climate change will be an environmental consideration in future County determinations. The County will be required to adhere to any future applicable mandatory regulations regarding global warming resulting from the passage of AB 32, but the exact character of such future implementing strategies are not known at this time. Given the application of AB-32 mandates over time (including those related to vehicle fuels and efficiency), there is no reason to find that approval of the program is inconsistent with AB-32 at this early stage of implementation, nor would it interfere materially with the ability of agencies subject to AB-32 to meet the mandated GHG emission reductions by 2020.

Noise

Cumulative Impact N-1: Exposure of Noise-Sensitive Land Uses adjacent to Carmel Valley Road to Cumulative Traffic Noise that Exceed County Noise Compatibility Standards (Significant and Unavoidable with Mitigation)

Table 4-1 summarizes the predicted traffic noise levels along roadway segments in the program area under future-year cumulative 2030 conditions. With the exception of the segments of Carmel Valley Road from Holman Road to

Table 4-1. Future Year 2030 With Project Traffic Noise Contour distances along Carmel Valley Road Project Segments

Roadway	Performance Standard, L _{dn} /CNEL	Distance to 70 L _{dn} Noise Contour (feet)	Distance to 65 L _{dn} Noise Contour (feet)	Distance to 60 L _{dn} Noise Contour (feet)
East of Holman Road	60	-	80	160
Holman Road to Esquiline Road	60	-	-	100
Esquiline Road to Ford Road	60	-	-	70
Ford Road to Laureles Grade	60	-	60	130
Carmel Valley Road Laureles Grade to Robinson Canyon Road	60	60	130	280
Robinson Canyon Road to Schulte Road	60	60	130	270
Schulte Road to Rancho San Carlos Road	60	60	130	280
Rancho San Carlos Road to Rio Road	60	90	190	400
Rio Road to Carmel Rancho Boulevard	60	80	250	790
Carmel Rancho Boulevard to Highway One	60	60	200	640

Esquiline Road and Esquiline Road to Ford Road, cumulative traffic noise is predicted to exceed 60 L_{dn} along all roadway segments in the plan area. This impact is therefore considered to be significant. Because of limitations associated with driveway access and topography, it is unlikely that effective mitigation can be identified for all situations. This impact is therefore considered to be cumulatively significant and unavoidable. Implementation of the following mitigation measures would reduce this impact, but not necessarily to a less-than-significant level.

Mitigation Measure N-3: Construct Noise Barriers Between Roadways and Residents Such that Traffic Noise Does Not Exceed 60 L_{dn} in Outdoor Use Areas

The County shall construct noise barriers in the form of walls or earth berms where feasible, such that traffic noise in primary outdoor use areas at residences does not exceed 60 L_{dn}. Construction of barriers that break the line of sight between the roadway and adjacent uses will likely provide at least 5 dB of noise reduction.

Mitigation Measure N-4: Use Low Noise Pavement

If feasible, the County will use low noise pavement such as rubberized asphalt or open-graded asphalt on new roadway surfaces constructed as part of the proposed traffic improvements. Studies conducted by Caltrans indicate that the use of low noise pavement such as open-graded asphalt

or rubberized asphalt can be expected to reduce traffic noise by at least 4 dB (Caltrans 2005).

Public Services and Utilities

Cumulative Impact PSU-1: Cumulative Increase in Demand for Utility Infrastructure and Capacities (Less than Considerable Contribution)

Regional development creates cumulative demand on all aspects of public services and utility provisions by increasing the number of residents, occupants, and visitors to the area. Public service and utility providers in Monterey County and associated cities have accounted for increases in the public needs in their master planning. The accommodation of such growth may place constraints on public utilities and services for future developments.

The proposed program is consistent with the intensity of development allowable within the CVMP area, and would act to accommodate the future growth. It would not act to directly induce population growth, and the demand on public services and utilities for the limited improvements are expected to be minimal. Construction period mitigation is identified to reduce potential utility disruption impacts to a less-than-significant level.

While cumulative growth may result in significance public service and utility demands, the traffic improvement program is not expected to contribute significantly to those demands due to the limited demand for such services and utilities by the new improvements.

Cultural Resources

Cumulative Impact CR-1: Cumulative Impacts on Known and Undiscovered Cultural Resources (Considerable and Unavoidable Contribution)

As development continues within the region, it is likely that additional, undiscovered sites exist within the area, including on land that is both developed and undeveloped. Although all development within the region must adhere to CEQA regulations that call for careful investigation and documentation of sites for the presence of cultural resources, adherence to these regulations and implementation of mitigation may not prevent a future cumulative loss of these important resources.

Because site-specific surveys have yet to be conducted for the projects in the proposed program, it is not known whether recognized cultural resources would

be disturbed. Furthermore, the potential exists for the discovery of previously unknown resource sites during the construction of traffic improvement projects. In combination with the other cumulative development, any disturbance or destruction of known and unknown cultural resources would be considered to contribute considerably to a significant cumulative impact.

Implementation of Mitigation Measures CR-1.1 to CR-1.6 would reduce these impacts to a less-than-significant level. However, if an architectural or archaeological resource cannot be avoided, the resource could be permanently damaged under project implementation. In this case, the impact would be considered significant and unavoidable, both as a direct impact and as a cumulative contribution.

Population and Housing

Cumulative Impact PH-1: Cumulative Impacts on Population and Housing (Less than Considerable Contribution)

The proposed program would not directly contribute to population or housing in the region, but could indirectly contribute to or accommodate growth by providing transportation infrastructure. As discussed in this EIR, the program has been developed as a response to current deficient traffic conditions and due to projected growth within the CVMP area by 2030. The proposed program would provide needed improvements to keep pace with the anticipated transportation needs of this population growth. Since no additional capacity that could induce population growth beyond that projected by the CVMP Area Plan are included, the proposed program would not contribute to a cumulative population increase.

While most of the proposed improvements would be constructed within existing rights-of-way, some projects may involve land acquisition. It is anticipated that the majority of additional right-of-way acquisition would involve vacant or undeveloped land. Mitigation, including compliance with local, state, and federal laws regarding displacements of people and businesses are included in the proposed program to ensure that displacement impacts are minimized.

In adhering to the policies mentioned within this EIR, any displacement resulting from the proposed program would not contribute considerably to a cumulative effect.

Growth-Inducing Impacts

CEQA Requirements

Section 21100 of the California Public Resources Code requires an EIR to include a detailed statement of the proposed project's anticipated growth-inducing impacts. More specific guidance is provided by Section 15126.2(d) of the state's CEQA Guidelines, which require that the analysis of growth-inducing impacts discuss the ways in which the proposed project could foster economic or population growth or the construction of additional housing in the project area. The analysis must also address project-related actions that, either individually or cumulatively, would remove existing obstacles to population growth. The purpose of this section is to examine the proposed program's potential impacts related to population growth, consistent with these statutory requirements.

Approach to the Growth-Inducement Analysis

Regulatory Context

California law requires that each county develop a comprehensive, long-term general plan to guide its land use decision-making and physical development (Government Code Section 65300 *ff.*). The intent is to ensure that growth takes place in a controlled manner, with an appropriate balance of land uses maintained and all needed services provided. This goal is reflected in the General Plan contents mandated under Government Code Section 65302—of the seven mandatory “elements,” or chapters, three relate directly to growth: the land use element establishes the pattern of future land uses, the circulation element plans the road system that will serve approved land uses, and the housing element identifies the means by which the county will meet its fair share of projected regional housing needs for all income groups.

Monterey County General Plan

The focus of growth under the existing 1982 *General Plan* is in urban areas (cities). New residential growth is to be concentrated in areas that are already committed to a degree of residential development and that have provision for an adequate level of services. Much of this would occur at low or rural density. No land use designations would change and it is assumed that existing undeveloped lots of record would ultimately be built out to their highest use, as envisioned by the existing 1982 *General Plan* land use map. The existing 1982 *General Plan* is designed to encourage growth in the 12 incorporated cities (Michael Brandman Associates 2006). The existing 1982 *General Plan* is in effect as the legal General Plan pending a future General Plan Update.

Growth Projections

The traffic study for the proposed program is based on the AMBAG Model. The AMBAG region (Monterey, San Benito, and Santa Cruz counties) is projected to grow by 39.6% between 2000 and 2030. Monterey County's population alone is estimated to increase by 50.1% to 602,731 by 2030. As most of the growth is anticipated to occur in cities, the unincorporated area is expected to grow at a slower rate than the County or AMBAG totals. According to AMBAG projections, the unincorporated area's population is expected to grow by 35% to 35,123 by 2030.

The AMBAG region and Monterey County have high jobs-housing ratios while the unincorporated area has a very low jobs-housing ratio.

Growth-Related Impacts of the Proposed Program

Direct Impacts

As discussed in Chapter 2, *Program Description*, the proposed program involves specific roadway improvements to the Carmel Valley Road corridor. The proposed program would not directly induce unplanned growth or growth at rates in excess of those supported by the County's General Plan, the 1986 CVMP, or the 2006 CVMP update. The transportation improvements are proposed in order to alleviate future traffic congestion resulting from planned growth under the CVMP buildout. The individual traffic improvement projects and the overall proposed program do not involve development of new units, commercial or visitor-serving uses, but rather involves capital improvements to existing infrastructure to serve projected land use development and growth regardless of the proposed program.

Indirect Impacts

Transportation system improvements are one component of the overall infrastructure that may serve to accommodate planned growth. However in some cases, this infrastructure may also serve to hasten or shift planned growth, or encourage and intensify unplanned growth in an area. Transportation projects may induce growth when they directly or indirectly promote, hasten, shift, or intensify planned growth or encourage unplanned growth in a community or region.

The proposed program would remove the moratorium for growth in the CVMP area by addressing existing and forecasted LOS deficiencies in the program area and allowing development to proceed in accordance with the CVMP policies. Development of the proposed program would thus indirectly contribute to growth in Carmel Valley by removing the obstacle to planned growth and allowing it to potentially proceed to CVMP buildout. CVMP buildout could result in

environmental impacts related to: geology, soils, and seismicity; hydrology and water quality; biological resources; aesthetics; land use; agricultural land; transportation and circulation; air quality; noise, public services and utilities; cultural resources; and population and housing. Potential impacts of development will be reviewed through the existing land use permitting and CEQA review process and through application of the CVMP and General Plan policies.

It is unlikely, given the strict guidelines and eventual cap for growth in the CVMP area that the proposed traffic improvement program would promote or shift growth in the CVMP area beyond that which is specified and restricted under the CVMP. The improvements, while improving localized traffic levels of service, do not include new roads into new areas and do not increase the overall through capacity of Carmel Valley Road (such as by making the entire length multi-lane).

No further analysis is required, and no additional mitigation beyond that identified in this EIR is proposed.

Significant and Unavoidable Adverse Impacts

Section 15126.2(b) of the State CEQA Guidelines requires an EIR to describe any significant impacts that cannot be mitigated to a level of insignificance. All of the impacts associated with the proposed program would be reduced to a less-than-significant level through the implementation of identified mitigation measures and environmental commitments, with the exception of the impacts listed below.

Biological Resources

Impact BIO-2: Potential Disturbance or Loss of Sensitive Riparian and/or Water/Aquatic Habitat including Wetlands

Impact BIO-3: Potential Disturbance or Loss of Special Status Plant Populations

Impact BIO-7: Potential Disturbance or Loss of Special Status Wildlife Species and Their Habitats

Cumulative Impact BIO-1: Cumulative Loss of Biological Resources Including Habitats and Special Status Species

Agricultural Resources

Impact AG-1: Direct Conversion of Important Farmland to Nonagricultural Uses

Cumulative Impact AG-1: Cumulative Impact on Agricultural Land

Transportation and Circulation

Impact T-2: Violation of the LOS Standard Established by the County for Segment 3 - Esquiline Road to Ford Road

Cumulative Impact T-1: Result in Traffic that exceeds LOS Standards Established by the County

Air Quality

Impact AIR-5: Elevated Health Risk from Exposure to Construction-Related Emissions

Cumulative Impact AIR-2: Cumulative Elevated Health Risk from Exposure to Construction-Related Emissions

Noise

Cumulative Impact N-1: Exposure of Noise-Sensitive Land Uses adjacent to Carmel Valley Road to Cumulative Traffic Noise that Exceed County Noise Compatibility Standards

Cultural Resources

Impact CR-1: Potential Demolition, Destruction, Relocation, or Alteration of Historical Resources

Cumulative Impact CR-1: Cumulative Impacts on Known and Undiscovered Cultural Resources

Irreversible and Irretrievable Commitment of Resources

Section 15126 of the State CEQA Guidelines requires a discussion of potential significant, irreversible environmental changes that could result from a proposed project. Section 15126.2(c) of the state CEQA Guidelines states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and particularly, secondary impacts (such as highway improvements which provide access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible commitments of resources should be evaluated to assure that such current consumption is justified.

The program comprises traffic improvements that are included in the current County Capital Improvement Program. The program would require commitments of both renewable and nonrenewable energy and material resources for constructing the individual projects under the program. These may include concrete, mineral resources, fossil fuels, and other non-renewable resources. A more detailed impact analysis of potential irreversible environmental changes would be required during development of plans for individual specific projects under the program.